THE ULTIMATE HAUNTED HOUSE GUIDE

THE ULTIMATE COLLECTION

All three books in one volume: Beginner Builds · Intermediate Builds · Professional Builds — easy builds to movie-special-effects builds, every build with full instructions

SPOOKY AT HEART

Contents

One volume, three levels, one doctrine: scare delightedly, build honestly, and never let a number into print that a source didn't earn.

Book I — Beginner Builds (complete)

Book II — Intermediate Builds (complete)

Book III — Professional Builds (launch scope, planned contents labeled)

How to use this volume: build in book order your first season. After that, it is a bench reference — the safety chapters (Beginner Ch. 11 · Intermediate Ch. 13 · Professional Chs. 4 & 6) are the annual re-read.

BOOK I — BEGINNER BUILDS

FOREWORD

The After-Season Score — Why This Book Opens in November

November 1st is Christmas morning for haunters. HAUNT #011 said it first and it stays true all year: the day after Halloween, every store that sold decorations starts selling *space* — and the gear that powers a yard drops to half price, then less. This book opens here on purpose. The builders who own October bought their October in November, at the after-season score, with eleven months to build slow and build right.

The calendar of record (HAUNT #011): **October 31** → **November 1** — Spirit Halloween drops to 50% off as stores head toward closing; this is the main event. **Early November** — Home Depot and Lowe's seasonal aisles run 50% → 75% off; good aisles get raided fast, so go early in the week, not on the weekend. **Mid–late November** — closing stores hit 75% → 90%; hunt inventory on BrickSeek and store-closing lists before you drive across town for a shelf that is already empty.

Buy: fog machines, fog juice, lighting — the gear that works every year and never goes out of style. **Skip:** cheap animatronics; they die in storage and the clearance price is what a broken motor costs. **Store:** dry everything, label every bin. Next year's build starts with a stockpile, not a shopping trip.

Then build in the order this book is written: one working system at a time, each chapter complete before the next begins. A beginner who finishes Chapter 2 (fog) and Chapter 4 (light) owns a haunt most decorated yards never reach. The rest of the book stacks on that spine.

Chapter 1 — The $100 Starter Haunt Kit: One Cart, First Haunt

HAUNT #010 distilled the whole series into one order. This chapter is that cart, expanded into a plan: what each item actually does in the yard, what order to open the boxes in, and what to skip if the budget is thinner than $100. Prices marked 'of record' are the episode record's own figures (HAUNT #010).

What you need

- Fog machine, 400W — VIRFUN (of record ≈ $30)
- Fog juice, gallon — FogWorx (of record ≈ $15)
- RGB uplights — Onforu 6-pack (two go in the yard first; of record ≈ $30 for the pair used)
- Outdoor Bluetooth speaker, waterproof — SumYanHing (of record ≈ $20)
- 3 foam tombstones + matte gray spray paint (of record ≈ $15, any craft store)
- Spider webs, bulk pack — ZPISF (of record ≈ $5)

Build it

1. Unbox in build order, not price order. Stones first (Chapter 3 ages them while everything else ships), then the fog machine, then lights, then sound, then webs last — webs are the finisher and go up the night before, never a week early.

2. The fog machine is the workhorse. It feeds the chiller you build in Chapter 2. Any 400W+ unit works; the record's unit is the VIRFUN because it was verified on this series, not because it is magic.

3. The uplights run the 3-Zone System (Chapter 4). Put two in the yard the first night and keep the rest of the pack as accent lights and spares — a dead uplight on haunt night with no spare is a dark zone.

4. The speaker carries the 3-Layer Audio System (Chapter 5). Hidden in a hollow stone or a bush, fed by an old phone as the MP3 source — $0, per the record.

5. The stones and webs are raw material, not finished props. Chapters 3 and 7 turn them into a cemetery and a reveal. Bought plain is correct — finished-looking foam is the toy look this book exists to fix.

6. Total of record: ≈ $115 all-in (the episode's own total — the kit is named for its target, and the record states the honest sum). If the budget is $60: machine + juice + stones + paint, and borrow the speaker. Fog and stones are the irreducible core.

Haunter's note: If a part is out of stock, substitute by *class*, never by price: any 400W+ fog machine, any waterproof outdoor speaker, any RGB uplight pack. The systems in this book are class-based on purpose — they survive substitutions because the technique, not the SKU, is the product.

Troubleshooting

- Fog machine 'doesn't work' out of the box → it needs 3–5 minutes of warm-up before the first burst, and the tank pickup tube must sit in juice. Test it the day it arrives, not on October 30.
- Speaker won't pair from inside the stone → move the phone closer for the first pairing; Bluetooth remembers after that. Keep the phone within roughly 30 feet of the speaker on the night.

Video companion: HAUNT #010 — The $100 Starter Haunt Kit.

Chapter 2 — Fog Foundations: Generate, Chill, Contain

The complete fog doctrine, combined from HAUNT #001, #006, #012, and #021. Warm fog floats away useless; cold fog sinks and pools. Everything in this chapter serves that one fact. Get fog right and every other chapter in this book performs better, because fog is the medium the light and the props perform inside.

What you need

- Fog machine, 400W or better (classes ranked in section 2.4 below)
- Fog juice, gallon — FogWorx
- Storage tote with lid (the chiller body)
- 3-inch dryer duct, one short length
- Frozen 2-liter bottles (household — freeze a week ahead)
- Low garden edging (the containment line)

Build it

1. **2.1 HEAT — generate.** The machine makes the fog. Fire it in short bursts rather than one long jet: a hard, constant jet of hot fog rises and vanishes before it can cool (HAUNT #012's first mistake). Short bursts give the fog distance and time to lose heat on its way to the chiller.

2. **2.2 CHILL — the tote chiller.** Cut a hole in each end of the tote, sized to the 3-inch duct. Run duct in one side, coil it loosely through the tote, and pack frozen 2-liter bottles around the coil. Duct out the other side to the graveyard. Fog enters hot, travels the cold coil, and exits dense and heavy — it crawls along the ground instead of floating away. Of record: the DIY chiller runs about $25 on top of the machine (HAUNT #001). Frozen bottles beat bagged cubes: they last longer and melt contained, so the tote never floods the coil.

3. **2.3 CONTAIN — the edging line.** Cold fog still drifts. Low garden edging around the cemetery plot holds the pool in the scene instead of letting it sheet down the driveway. Run the edging before the first test night and dress its inner face with mulch or leaves so the line disappears.

4. **2.4 The machine classes (HAUNT #006, the record's own tiers).** 400W budget (≈ $30 of record) — small porch, single room; fine for starters, weak output. 700W mid-range (≈ $60) — the sweet spot for most home haunts; pairs with the chiller. 1000W+ pro (≈ $120+) — yard-scale; needs the chiller or the output is wasted. Low-lying specialty (≈ $150+) — built-in chiller, true ground fog out of the box; worth it if you hate DIY. Battery portable (≈ $80) — no outlet needed; middle of the yard, parade floats, costumes. Two record rules ride every tier: **wattage means output volume, not quality**, and **juice choice matters more than machine choice**.

5. **2.5 The three mistakes that kill the effect (HAUNT #012).** One: no chiller — warm fog floats, full stop. Two: constant jet instead of bursts. Three: no containment — the fog you paid for decorates the street. Every failed cemetery the series has reviewed breaks exactly one leg of the system; fix the leg, not the machine.

6. 2.6 Storage & care (HAUNT #021). Machines don't die in October; they die in storage, in March, quietly. Before the machine goes away: run distilled water through it for about a minute of mist to clear old juice from the lines and pump. Empty the tank and let it dry — juice sitting all winter is how pumps clog. Store jugs sealed tight, labeled with the date, indoors and off the concrete floor; the machine stores dry, indoors, right next to them. Check your manual before next season — every machine varies a little, and the manual wins.

Haunter's note: Wind is the honest limit of every fog chapter in this book: above a light breeze, ground fog thins no matter what you do. On a windy forecast, move the chiller output to the most sheltered face of the plot and shorten burst intervals rather than raising output.

Troubleshooting

- Fog rises instead of pooling → the chiller charge is spent or the fog never entered the tote. Re-freeze bottles; verify duct enters one end and exits the other (a duct that bypasses the coil is a decoration).
- Fog thins after the first hour → ice melt: swap in the second set of frozen bottles. Freeze two sets before the big night, always.
- Machine sputters or output drops week over week → clogged line. Run the distilled-water flush (2.6) before assuming the pump is dead.
- Fog pooling in the street instead of the plot → containment gap. Walk the edging line at dusk and close it where the fog escapes; fog finds the low gap like water.

Video companions: HAUNT #001 — The Ground Fog Cemetery · #006 — 5 Fog Machines Ranked · #012 — Fog Machine Mistakes · #021 — Fog Juice Storage & Machine Care.

Chapter 3 — Tombstones That Don't Look Cheap: The 3-Coat Aging System

Store-bought foam tombstones look like toys because they are clean, bright, and uniform. Real gravestones are stained, chipped, tilted, and all different. Aging is a 20-minute job per stone and it is the whole difference (HAUNT #003). This is the full treatment of Starter Kit Build 4 — the same stones, taken further.

What you need

- Foam tombstones, or 2-inch foam insulation board to cut your own
- Matte gray spray paint
- Black paint (dry-brush shadow coat)
- Green and brown moss tones + bagged moss
- Chip brushes (cheap, disposable — the brush is a consumable here)
- Craft knife or soldering iron (carving, optional if stones are pre-cut)

Build it

1. Coat 1 — BASE. Matte gray spray paint over the whole stone. Matte is non-negotiable: gloss reads as plastic at ten feet; matte reads as stone. This coat kills the factory shine and unifies stones bought from different shelves.

2. Coat 2 — SHADOW. Dry-brush black into the carved letters and edges. Load the chip brush, wipe most of it off on cardboard, then drag what remains across the lettering so pigment catches the grooves and skips the face. This is 80% of the effect (the record's own figure) — spend 15 of your 20 minutes here.

3. Coat 3 — LIFE. Dab green and brown moss and dirt tones at the base and across the top edge, thin and irregular. Nothing in a real cemetery is clean; a stone aged only in gray still reads as a prop. Bagged moss glued at the base line finishes the lie.

4. Carving (if you cut your own). Names and dates by hand — slightly crooked letters, dates from the 1800s, one stone for a child, one worn almost smooth. Uniform perfection is what gives fakes away (Starter Kit Build 4). Epitaph rule from the Kit: funny reads as decoration, plain reads as real — 'MARY ANN LISTER 1841–1879' outperforms any pun.

5. Chips and set. Chip two or three edges with your fingers; foam forgives it and the damage reads as a century of weather. Set stones at angles — lean, sink, tilt. Nothing in a real cemetery stands at attention. Anchoring for wind is Chapter 8; layout is the Intermediate book's Cemetery Layout chapter.

Haunter's note: Cost of record (HAUNT #003): one $8 foam tombstone plus $12 in paint looks like a $40 stone in 20 minutes. The paint is shared across every stone you own — the second stone costs the $8 alone.

Troubleshooting

- Stones still look like toys after aging → check the finish under your actual haunt light, not the workbench light. If the gray reads bright, the base coat was gloss or satin. Re-coat matte; do not add more shadow to compensate.
- Letters unreadable after the shadow coat → too much paint on the brush. The dry-brush rule is: if you can see paint on the brush, there is too much. Wipe and retry on the back of a stone first.
- Moss looks glued-on (it is) → thin it by half and push pigment *under* the moss line with the brown tone, so the moss grows out of a stain instead of sitting on a clean stone.

Video companion: HAUNT #003 — Tombstones That Don't Look Cheap. Condensed version: Starter Kit Build 4.

Chapter 4 — The 3-Zone Light System: Wash, Accent, Flicker

Natural light comes from above. Light from below reads as WRONG to the lizard brain — and that is the entire trick (HAUNT #004). Three cheap zones beat a yard full of expensive props. This chapter gives the system; the Intermediate book's Yard Map chapter gives the surveyed placement.

What you need

- RGB uplights, 6-pack — Onforu
- Orange spotlights, 2-pack — LOHAS
- Flicker flame bulbs — TMAM

Build it

1. Zone 1 — WASH. Flood the house front in one unnatural color — green or purple. Whole wall, one color, no mixing. Instant 'something's wrong here.' The wash is the background every other zone performs against; if the wash is multicolored, there is no background, only noise.

2. Zone 2 — ACCENT. Uplight the tombstones and props individually in orange or red, from in front and below. This creates the depth: lit faces floating in front of the wash. One light per cluster, not per stone — clusters read as scenes, singles read as inventory.

3. Zone 3 — FLICKER. One flicker flame bulb in one window. The human eye cannot ignore inconsistent light; a single flicker pulls every gaze in the yard back to the house all night. Two flickers compete and cancel. One.

4. The $15 claim, honestly. The episode is named for one uplight doing the accent job (of record: 'One $15 light does more than $200 of decorations'). The claim is about placement, not magic: a cheap light in the right zone outperforms expensive fixtures scattered without a system.

5. Pairing rule. Fog plus uplight is the highest-impact combo per dollar in the series (HAUNT #004's own pairing note). Run Chapter 2's ground fog through the accent zone and the stones appear to float on a lit sea. Light the fog, not just the stones.

Haunter's note: Hide every light source. A visible fixture is a broken spell: bury uplights behind a stone's shoulder, a shrub, or a mulch ridge so the audience sees the effect and never the hardware. The Starter Kit's lighting rule says the same thing in fewer words — keep sources hidden, light the scene, never the audience's eyes.

Troubleshooting

- Yard reads as 'decorations' instead of 'wrong' → the wash is missing or the lights are aimed from above. Re-aim everything below the subject's midpoint; horror light climbs, party light falls.
- One zone washes out the others → the wash floods are too close to the house. Move them out and angle up the facade so the accent zone keeps its contrast.

- Flicker bulb ignored by guests → it is competing with a brighter steady source nearby. Dim or move the neighbor; the flicker must be the only inconsistent light in its sightline.

Video companions: HAUNT #004 — The $15 Uplight Trick · placement survey in HAUNT #013 (Intermediate book, Chapter 2).

Chapter 5 — The 3-Layer Audio System: Bed, Trigger, Rumble

Sound is the cheapest force multiplier in haunting (HAUNT #005). A silent yard reads as 'decorations.' A yard with a low, layered soundscape reads as 'something lives here' — and the whole system runs on one speaker and an old phone.

What you need

- Outdoor Bluetooth speaker, waterproof — SumYanHing IPX7
- PIR motion-sensor MP3 player (trigger layer) — Waytronic
- An old phone as the MP3 source — $0 (the record's own line)

Build it

1. Layer 1 — BED. A constant ambient loop — wind, distant thunder, crickets — runs all night and sets the baseline. Build it quieter than feels right: the Starter Kit's rule is to keep the bed so quiet guests lean in. A loud loop of screams becomes wallpaper in two minutes and then it is just noise the neighbors endure.

2. Layer 2 — TRIGGER. A motion-sensor scream or stinger fires when someone approaches. That is the scare. The player is the Waytronic PIR unit of record; placement and timing are a system of their own — the Intermediate book's Sound Timing chapter (the 2-Second Delay Rule) is the full treatment.

3. Layer 3 — RUMBLE. A sub-bass drone underneath everything, felt more than heard. It is the layer guests can't name and the one that makes the yard feel occupied. If your speaker can't reproduce deep bass honestly, run the rumble quiet rather than distorted — a buzzing drone breaks the spell the rumble was hired to hold.

4. Hardware placement. One outdoor speaker hidden inside a hollow tombstone or a bush, near the scene, not near the house (Starter Kit doctrine). Run speakers where the sound should live; a soundscape that clearly comes from the porch sounds like a porch playing a recording.

5. The silence cue. The pro trick from the Starter Kit, kept verbatim in spirit: ten seconds of true silence right before your biggest moment. Silence after sound is the loudest thing in the world. Program the bed to cut, count ten, then fire the moment.

Haunter's note: Volumes stay neighbor-safe after 10 p.m. (Starter Kit rule). The best haunt on the street is also a good neighbor, or it becomes a one-year haunt.

Troubleshooting

- Guests don't react to the trigger layer → the bed is too loud and masks it. Drop the bed 3 dB at a time until the stinger startles *you* on a test walk.
- The soundscape sounds like one speaker (it is) → it is placed too close to the audience path. Move it deeper into the scene and let the fog and stones do the localizing.

- Loop seam is audible every cycle → crossfade the bed loop's ends in any free audio editor, or choose a bed track with no musical phrase to repeat. A recognizable seam turns ambience into a recording.

Video companion: HAUNT #005 — Sound, The Layer Nobody Thinks About. Timing: HAUNT #016 (Intermediate book, Chapter 3).

Chapter 6 — The Blacklight Reveal: The $30 Hallway

With the lights on, the hallway looks empty. Under blacklight, it is a crime scene. The reveal IS the scare, and it runs on a system (HAUNT #008): DARK, GLOW, SECRET. This is the cheapest build in the series and the biggest reaction gap — the perfect first indoor build.

What you need

- UV blacklight bars, 2-pack — Yacolit
- UV-reactive paint kit — Blue Squid
- Spider webs, bulk pack — ZPISF
- UV invisible-ink pen (specified in the episode's system text)

Build it

1. Step 1 — DARK. One UV blacklight bar overhead, and it is the ONLY light source in the space. Every other source — hallway light, spill from the next room, a phone screen — dilutes the reveal. Door gaps get a towel; the hallway goes cave-dark except for UV.

2. Step 2 — GLOW. White spider webs glow electric under UV. Stretch the bulk webs across the hallway's upper corners and door frames where hands won't tear them on entry, and let a few strands hang into the walk line so guests brush the edge of the lair walking through.

3. Step 3 — SECRET. Fluorescent paint handprints crawl up the walls, and messages written with the UV invisible-ink pen stay invisible in normal light and glow under blacklight. Write them at reading height, in a hand that doesn't match anyone in the house. The secret layer is what guests describe afterward — the glow is the effect, the message is the story.

4. The test that protects the build (HAUNT #014). Half the 'glow' decor on the shelf doesn't glow. Before build night, hold every item under your own blacklight bar, in the dark — not the store's light, yours. Sort glowers from dead, and only glowers go in the dark zone. One dead prop sitting in the reveal kills the reveal. (The full Glow Test protocol is the Intermediate bridge note at the end of this chapter's parts list in the series record.)

5. Cost of record: the build is named for its ≈ $30 total (HAUNT #008's title figure) — two bars, one paint kit, webs you already own from Chapter 1.

Haunter's note: Blacklight safety, from the SFX dive's standing rule: never aim a UV bar at audience eyes. Bars mount overhead and angle at walls and webs, never down a sightline at face height.

Troubleshooting

- Reveal looks dim → a second light source is leaking in, or the bar is too far from the surfaces. Kill the leak first; then move the bar closer to the web line before buying a second bar.
- Handprints look like a craft project → too many, too neat. Real panic isn't symmetrical: fewer prints, varied sizes, one dragged print that stops mid-wall.

- Guests walk through unimpressed in daylight order → the reveal needs the dark to be total. Run this build as a threshold moment — porch light off as they enter — or skip it for open-yard use; it is a hallway build and it knows it.

Video companion: HAUNT #008 — The $30 Blacklight Hallway. Test protocol: HAUNT #014 — Blacklight Test.

Chapter 7 — The Watchers, the Apparition & the Mirror: Three Illusions

Three builds from the Starter Kit, given the full treatment together because they share one craft: an illusion that holds because the audience does the work. Each is a Kit build (3, 1, and 8 respectively) expanded with the geometry and failure modes the condensed version didn't have room for.

What you need

- Clear acrylic or plexiglass sheet, roughly window-sized
- A tablet, old phone, or small monitor (×2 — apparition and mirror)
- Black curtain or sheet; black cloth
- Black foam board or thin plywood; jigsaw or craft knife; garden stakes; matte black paint
- A framed mirror or picture frame with glass
- Two-way mirror film (window film)
- Free 'hologram ghost' and 'ghost face fade' loop videos (search terms of record from the Kit)

Build it

1. 7.1 The Watchers (Kit Build 3). Hooded silhouettes standing motionless at the edge of the light. Draw three figures at different heights — one clearly adult, two slightly wrong (too tall, head tilted). Imperfection is the effect. Cut, paint both sides matte black (never gloss — gloss reads as 'object,' matte reads as 'absence'), mount on stakes. Place them where light almost reaches: a tree line, beside the porch, behind the graveyard fence. They must be *discovered*, never featured. Vary them nightly if you can — a watcher that changes position between evenings becomes neighborhood legend. Safety, from the Kit: keep silhouettes clear of walkways and driveways; a driver who flinches is not a win.

2. 7.2 The Window Apparition — Pepper's Ghost (Kit Build 1). The single most convincing illusion in home haunting, and it costs almost nothing if you own a tablet. Darken the room completely; hang the black curtain behind where the figure should appear. Angle the acrylic at 45 degrees in front of the window, reflective side toward the glass. Lay the tablet face-up on the windowsill, screen brightness at maximum, playing the ghost loop. View from the street and adjust the angle until the figure floats in the window and the tablet is invisible. The geometry is the whole trick: at 45°, the sheet reflects the horizontal screen into the viewer's vertical sightline — the source hides below the sill while its reflection stands in the glass. Run a slow-drifting figure, not a jump-scare loop: dread beats surprise here. Free upgrade from the Kit: film your own apparition — a family member in a white sheet against a black backdrop, moving at half speed, beats any stock loop because the ghost is *yours*. (Room-scale Pepper's Ghost is a Professional-book subject; this window version is the beginner form.)

3. 7.3 The Haunted Mirror (Kit Build 8). An antique mirror that is ordinary glass — until a face that isn't yours fades into it. Apply the two-way film to the glass. Mount the tablet directly behind the glass, screen facing out, surrounded by black cloth so only the screen area can show through. Play a loop that is black for 20–40 seconds, then a face fading up, holding, and fading back to

black. When the screen is black, visitors see a mirror; when the face rises, it appears *inside* the mirror. Dim the area lights — the effect needs the mirror side darker than the viewing side. Use a frame that looks old; a yard-sale frame with real wear beats a new 'antique-style' one every time. This is the build guests film, and filmed scares are next year's audience.

Haunter's note: All three illusions fail the same way: a visible mechanism. Before the night, stand at every audience position and hunt for the tablet's edge, the stake's gloss, the film's seam. The audience will find whatever you didn't.

Troubleshooting

- Apparition looks like a floating TV → the room isn't dark enough or the acrylic angle shows the tablet's bezel. Black out the sill line with cloth and re-angle in 2° steps from the street view, never from inside.
- Mirror face visible as a rectangle → light is leaking around the tablet. Add cloth until the black of the screen and the black of the surround are the same black.
- Watchers read as decorations → they're lit. Move them one step further from the light's edge; a watcher you can fully see is a cutout, a watcher you almost see is a presence.

Condensed versions: Starter Kit Builds 1, 3, and 8 (free with the HAUNT list).

Chapter 8 — Tombstone Anchoring for Windy Nights: The Anchor System

Foam tombstones are kites. One windy night ends your whole cemetery (HAUNT #015). The stones you aged in Chapter 3 deserve to still be standing in November — anchor them like you mean it. This is a no-link chapter by the record's own design: rebar, dowels, zip ties, adhesive, and a sandbag are hardware-store staples, and this book only links gear it has verified.

What you need

- Rebar or wooden dowels
- Zip ties
- Construction adhesive
- A wide base board (per stone, optional method)
- A sandbag or brick (per stone)

Build it

1. Leg 1 — STAKE. Drive rebar or a dowel deep into the soil and up into the base of the stone. Invisible from the front. Depth is the strength: a stake that rocks in its hole is a lever waiting for wind, so drive it until it doesn't move when you push the top sideways by hand.

2. Leg 2 — STRAP. Zip-tie the back of the stone to the stake, twice — two ties, spaced, so the stone can't pivot around a single point. Alternative method: glue the stone down to a wide base board with construction adhesive and stake the board. The board method suits paved or frozen ground where stakes won't drive.

3. Leg 3 — WEIGHT. A sandbag or brick hidden behind the base. Low and wide beats tall and light, every time (the record's rule). Dress the weight with mulch or a leaf drift so the ballast disappears into the scene.

4. The system check. Push each stone at shoulder height with the force of a strong gust — a firm two-hand shove. Any stone that leans, lifts, or twists gets another leg of the system, not a hopeful pat. Run the check the day you set the yard and again after the first real wind, because soil loosens around stakes as it dries and wets.

Haunter's note: Anchor before you light. A fallen stone that takes an uplight down with it is two failures; stones go in, get the shove test, and only then does Chapter 4's accent light get aimed at them.

Troubleshooting

- Stone leans after a windy night → the stake hole has wallowed out. Pull, re-drive two inches to the side into fresh soil, and add the sandbag leg if it wasn't there.
- Zip ties snap in the cold → use two per stone (the system already says so) and route them through a drilled hole at the stone's back base rather than around a foam edge that can tear out.

- Base-board stones skate on pavement → the board needs weight, not grip. Sandbag the board's back edge; felt pads and hope are not an anchoring method.

Video companion: HAUNT #015 — Tombstone Anchoring for Windy Nights.

Chapter 9 — The Spider Lair, the Drop Spider & the Coffin: Set Pieces

Three more Starter Kit builds (6, 7, and 9) at full treatment. One giant spider is a decoration; a lair is a place. A coffin is a box; a coffin with a one-inch secret is a presence. And the Drop Spider is Rule 3 — stillness, then movement — in its purest form.

What you need

- Beef-netting style webbing (the kind you cut and stretch)
- One large spider (store-bought, or PVC-pipe legs + a stuffed body)
- White balloons or stockings + stuffing (egg sacs)
- Dozens of small plastic spiders
- Fishing line; a small pulley (clothesline pulley)
- A medium spider prop (the drop spider)
- A counterweight or a hand line to a hidden operator spot
- Three 1x6 fence pickets or a sheet of plywood (coffin build) — or a store-bought coffin prop
- Wood screws, hinges
- Black paint + gray dry-brush aging (Chapter 3 method)
- A dim red or green light (coffin interior)

Build it

1. 9.1 The Spider Lair (Kit Build 6). Stretch the webbing in big, torn sheets between trees, porch posts, and the house. Cotton web in little tufts reads as cotton; stretched netting reads as silk — this material choice is the build. Hang the mother spider high, over the path or door, on fishing line so she appears to float in her web. Egg sacs cluster low near the foundation. Scatter the small spiders along railings, the mailbox, the door frame — the edges of where hands go. Light it with one green or UV source from below: spiders lit from above look like toys; lit from below they look alive. Keep one path web-free and clearly lit — guests should choose the lair, never be trapped by it.

2. 9.2 The Drop Spider (Kit Build 7). Mount the pulley high on a porch beam or tree branch. The line runs: spider → up through the pulley → back to your hidden release point. Rig the spider to rest at roofline, invisible against the dark. On release it falls fast and stops — set a hard stop knot so it can never descend below 7 feet. Reset by pulling the line back up slowly *after* the group passes; a spider visibly reeling itself up breaks the spell. Trigger discipline: one drop per group, after the bravest person passes the mark — scare the confident one; the rest is laughter. Hard rules from the Kit, non-negotiable: never over a walkway where someone could step back into a post or street, never at face height, and test the stop knot with a weight before the night.

3. 9.3 The Coffin in the Yard (Kit Build 9). The anchor piece. Build the classic six-sided toe-pincher shape: narrow at the head and feet, wide at the shoulders. Even rough carpentry works — coffins in the movies are far too perfect; a little warp is realism. Hinge the lid and prop it

open exactly one inch with a block. Total darkness inside except the faintest colored glow. Age it with Chapter 3's method — streaks, chips, moss at the base. Lean it, don't lay it: a standing coffin at the edge of the yard reads as a presence, and the cracked lid gives guests a mystery to lean toward and never solve. If a hand appears at the gap, it must never move — the imagination finishes that scare better than any motor.

Haunter's note: The set pieces reward restraint at audience distance. Build them at full size, then judge them from the sidewalk, in the dark, at the speed a guest actually walks. Detail that only reads from two feet away is workshop vanity.

Troubleshooting

- Webbing reads as cotton candy → it is bagged cotton web, not beef netting, or it was hung in tufts. Replace with netting stretched until it tears naturally; torn edges are the realism.
- Drop spider gets a laugh at the wrong moment → it reset visibly or dropped for a group that saw the last drop. Hold the reset until the path is empty, and never drop twice for overlapping groups.
- Coffin reads as a storage box → the lid gap is too wide or the interior light too bright. One inch, faintest glow. Mystery is a rationed resource.

Condensed versions: Starter Kit Builds 6, 7, and 9.

Chapter 10 — The Fog Chiller, Full Treatment: The Cooler Build

The Starter Kit's Build 5 — the fog chiller — expanded to the full build: the cooler variant, the frozen-bottle doctrine, placement against wind, and the refill rhythm that keeps ground fog alive for a whole evening. (Chapter 2 teaches the system; this chapter is the workshop pass on its central machine. The Life-Size Crypt Fog Chiller — the same physics at prop scale — is an Intermediate-book chapter.)

What you need

- A standard fog machine and fog juice
- A foam cooler
- Flexible dryer duct, two short lengths
- Bagged ice — or frozen water bottles (the doctrine below)
- A small fan (optional, for a slow push)

Build it

1. The build. Cut a hole in each end of the cooler, sized to the duct. Run duct in one side; fill the cooler with ice around a loose duct coil inside; duct out the other side to your graveyard. Fog enters hot, travels through the ice chamber, and exits cold and heavy — it will crawl along the ground instead of floating away (Kit Build 5's own steps, kept).

2. Bottle doctrine. Freeze water bottles instead of buying cubes — they last longer and melt contained (the Kit's note). In the tote build of Chapter 2 the same doctrine applies with 2-liter bottles. Either vessel, one rule: the fog must travel *through* the cold, not past it — a coil buried in the charge, never a straight pipe under a layer of ice.

3. Placement. Position the outlet upwind of the scene so fog drifts through the stones, not into the street (Kit rule). If the yard's wind is unreliable, place the outlet at the plot's center and let the containment edging (Chapter 2.3) hold what the wind would steal.

4. Refill rhythm. Refill ice every 90 minutes or so on the big night (of record, Kit Build 5). Mark the rhythm on the night-of checklist in Chapter 12 — a chiller that dies at 8 p.m. is a fog chapter that ends mid-performance. Frozen bottles swap in under a minute; cubes mean scooping meltwater in the dark.

5. The fan option. A small fan at the outlet gives a slow push on dead-calm nights when chilled fog pools at the vent and stalls. Slow is the operative word — a fast fan shreds the density you chilled the fog to earn.

Haunter's note: Fog juice residue is slippery on concrete (Kit warning, repeated because it matters): keep the densest fog on grass and soil, and keep walkways clear.

Troubleshooting

- Output is cold but thin → the machine is firing long jets that overwhelm the coil. Shorten bursts (Chapter 2.1) and let the chamber recover between them.
- Fog exits warm on one side → the coil has an air gap: fog is short-circuiting past the ice. Repack so the coil is buried on all sides.
- Cooler sweats and puddles → it is doing its job; set it on soil or a tray, never on the walkway, and route the melt away from cables (Chapter 11).

Condensed version: Starter Kit Build 5. System context: Chapter 2 of this book.

Chapter 11 — Safety Foundations: Outdoor Power & Cable Doctrine

HAUNT #019 — the record this book treats as law. Your whole haunt runs on one outlet, probably through one heroic power strip. Every build in this series plugs in somewhere, and the power chapter is the one that keeps the haunt — and the haunter — running for a decade. This chapter appears in every book of the Guide, because every level plugs in.

What you need

- Outdoor-rated extension cords
- A GFCI-protected outlet
- A covered weatherproof box (connection housing)
- Flat cable covers (path crossings)
- Timers (circuit scheduling)

Build it

1. Rule 1 — DRY. Connections live off the ground, inside a covered weatherproof box, with a drip loop in the cord before the box so water runs down the loop instead of into the plug. A drip loop is a deliberate U of slack hanging below the connection — gravity does the waterproofing, for free, forever.

2. Rule 2 — RATED. Outdoor-rated cords only, on a GFCI-protected outlet. And add up the watts on the circuit — a fog machine plus a yard of lights adds up faster than you think. The arithmetic is in below; do it on paper before the first test night, not by tripping a breaker in front of an audience.

3. Rule 3 — ROUTED. Cables run along edges and fence lines, never loose across the walk path. Where one must cross, it goes under a flat cable cover. A cord a guest can catch with a toe is a failure the guest pays for.

4. The load arithmetic (doctrine). A standard household circuit is 15 amps; at 120 volts that is 1,800 watts of nameplate capacity, and the standing practice this book teaches is to plan at 80% of it — 1,440 watts — for anything that runs for hours. Add the nameplate watts of every device on the run: the record's fog machines draw on their wattage class (a 400W machine is 400 watts; the 1000W pro is 1,000). A 400W fog machine + a yard of LED uplights + a speaker sits comfortably under the plan line. A 1000W machine + a second machine + halogen spots can cross it — which is why the arithmetic happens on paper. Devices print their draw on the label; the label wins over any number in this book.

5. The architecture this book defaults to. Low-voltage DC at the prop wherever a build allows it (the SFX dive's genre-standard architecture): the Intermediate and Professional books run their motors and valves on 12V from a protected supply, so the only mains in the yard is the short list of Chapter 1 gear, each on the GFCI run, each connection boxed and drip-looped.

Haunter's note: The two-hour rule from the Starter Kit rides here too: run a 'lights-up, no scares' gentle hour for small kids and nervous neighbors, and post a strobe warning if you run any strobe — photosensitive guests deserve the choice. Heroes who survive the gentle hour come back for the real one next year.

Troubleshooting

- Breaker trips on the big night → you skipped §11.1. Split the run across two circuits (machine on one, lights on the other) and re-add the paper numbers before next season.
- GFCI trips in damp weather → a connection is wet. Find it by halving the run: unplug downstream halves until the trip stops, then box and drip-loop the guilty joint. Never defeat or bypass a GFCI to keep a show running — a tripping GFCI is a report, not an inconvenience.
- Guests keep finding a cable with their feet → it crosses the path outside a cover. Re-route along the fence line tonight; covers are for the one crossing you cannot avoid, not a license to carpet the yard in cords.

Video companion: HAUNT #019 — Outdoor Power & Cable Safety. This chapter carries the book's safety review (see the build report).

Chapter 12 — The Three Rules, the Lighting Palette & the First-Night Checklist

The closing chapter gathers the Starter Kit's doctrine into the Beginner book's operating system — the rules that govern every build above, plus the night-of checklist that turns a finished yard into a performed haunt.

What you need

- No parts — this is the doctrine chapter. Bring the yard you built.

Build it

1. The 3 Rules of a Scary Yard (Starter Kit, of record). Rule 1 — One focal scare beats ten decorations: the eye can't be scared in eleven directions at once; pick the spot every visitor must pass and spend your best effect there. Rule 2 — Sound does half the haunting: a silent yard reads as 'decorations,' a layered yard reads as 'something lives here.' Rule 3 — Stillness, then movement: the scare isn't the prop, it's the moment the prop that looked harmless *moves*.

2. The Three-Color Rule (Starter Kit lighting doctrine). Amber/orange is your base — candlelight and firelight live here; use it low, at ground level, aimed up. Sickly green is your accent for graves, fog, and anything undead — one green source is atmosphere, three is a nightclub. Moonlight blue is a single cool wash from high up for silhouettes and the Watchers. Blue from above + amber from below is the entire Hollywood horror palette, and it costs two bulbs. Add the Kit's three corollaries: keep light sources hidden; light the scene, never the audience's eyes; and put the whole rig on one switch or timer so the haunt can go dark in one motion — a full blackout before a big moment is a scare all by itself.

3. The first-night checklist (Starter Kit, of record, with the chiller rhythm added). ■ All builds tested from the sidewalk, in full dark. ■ Fog chiller charged; spare frozen bottles ready; refill marked at 90-minute intervals. ■ Sound bed looping; silence cue planned for the big moment. ■ Drop Spider stop-knot re-tested with weight. ■ Walkways walked in the dark, at kid height, twice; cords secured. ■ Strobe sign posted; gentle hour on the sign by the street. ■ One switch kills all lights; one person owns that switch. ■ Candy stocked — the haunt brings them in; the candy sends them home happy.

4. What happens next. A beginner who has run one full night owns something no purchase provides: a calibrated yard. The Intermediate book takes that yard and gives it motion with timing (Breathing Grave at full treatment, the 2-Second Delay Rule), surveyed layout, and the Horizon A builds — candles that float, stones that peek, skeletons made corpses. Pick one build from this book for this season. Add one every season. That's how the legendary houses got legendary.

Haunter's note: One promise, from the Starter Kit's welcome, kept as this book's closing word: everything here is designed to scare *delightedly* — a scream followed by a laugh, never an injury, never a terrified toddler, never a call from the fire marshal. The safety notes aren't fine print. They're part of the craft.

Series hub: HAUNT #010 — the pinned routing episode. Starter Kit (free) — the condensed companion to this book.

Chapter 13 — The Breathing Grave, Beginner Treatment: The Silent Mound

Starter Kit Build 2, at the Beginner level: the version a first-year haunter builds in an afternoon with a fan, a mound form, and patience. The Intermediate book's Chapter 1 is this same grave at full treatment — two drives, tuning doctrine, the works. This chapter is the gentle door into it, and plenty of yards stop here forever, happily.

What you need

- A small oscillating fan or a slow motor (a rotisserie motor is perfect — Kit, of record)
- Chicken wire or a tomato cage (the mound form)
- Burlap or landscape fabric
- Soil, mulch, or dead leaves (the dress)
- A foam tombstone (Chapter 3)

Build it

1. Form the mound. Chicken wire over the motor, roughly the size of a shallow grave. The form is the grave's skeleton; size it to read at yard distance — a mound too small is a lump, a mound too big is a landscaping project.

2. Couple the motion. Attach a light arm or cam to the motor shaft so one spot on the mound lifts a few inches as it turns. The Kit's build is deliberately simple: no relays, no timers — a slow, continuous, imperfect motion that the form's flex makes irregular for free.

3. Dress it. Drape burlap over the frame, then dress with soil and leaves until no mechanics show. Soil directly on burlap reads as fresh-dug earth, which is exactly the story this grave tells.

4. Set the stone. The tombstone goes at the head (Chapter 3's aging, Chapter 8's anchoring). Test from the sidewalk: you want movement you almost can't see — two inches, slow, irregular. This sentence is the Kit's own test, and it survives every version of this build, including the Intermediate treatment.

5. The second-mound trick. If the motion is too regular, add a second, smaller mound on a timer. Two unsynchronized breathers read as a whole restless plot — the cheapest upgrade in the Guide, and the first taste of the layering doctrine the whole Intermediate book teaches.

> **Haunter's note:** Slow is scary. If a guest can count the rhythm, slow it down. (The Starter Kit's haunter's note, word for word in spirit — it is the build's whole law.)

Troubleshooting

- Mound visibly 'machines' → the arm lifts at one hard point. Spread the lift with a wider cam or a fabric sling under the crown so the rise blooms instead of poking.
- Burlap shows its weave in the light → another soil pass, thinner, worked into the weave. The fabric is a soil-holder, not a surface.

Condensed version: Starter Kit Build 2. Full treatment: Intermediate Chapter 1.

Chapter 14 — The Drop Spider & the Lair Light: Timing the One Scare

The Drop Spider appeared in Chapter 9.1's set-piece chapter as a build; this closing chapter is its performance doctrine — and the Spider Lair's light, the two pieces of Kit craft that are about *when* and *how lit* rather than how built.

What you need

- The Drop Spider rig (Chapter 9.2)
- One green or UV light source, low (the lair light)
- A hidden operator spot or a motion-sensor spotlight (trigger options of record)

Build it

1. The one-drop rule. One drop per group, after the bravest person passes the mark. Scare the confident one; the rest is laughter (Kit doctrine). A spider that drops for every guest becomes a ride; a spider that drops once, for the right person, becomes the story the whole group tells at the next house.

2. The reset discipline. Pull the line back up slowly *after* the group passes — never during. A spider visibly reeling itself up breaks the spell for the dropped group and spoils it for the next one. If two groups overlap, the second group gets no drop. Scarcity is the mechanism.

3. The lair light. One green or UV light from below. Spiders lit from above look like toys; lit from below they look alive (Kit rule). The light sits low, aimed up through the webbing, so the mother's shadow multiplies across the porch ceiling and the egg sacs glow at the foundation line. One source: a second color turns the lair into a display.

4. The web-free path. Keep one path web-free and clearly lit (Kit rule). Guests should choose the lair, never be trapped by it — the choice is what makes walking through it brave instead of rude.

Haunter's note: The performance chapters are why the Kit's builds are written with trigger discipline and light placement inside them: in this craft, *operating* a build is half of building it. A perfect prop run carelessly is a decoration.

Troubleshooting

- Drop gets gasps, then complaints → it fell too close or over the wrong heads. Re-check the 7-foot stop and the never-over-a-walkway rule; the scare must be escapable in one step backward.
- Lair looks flat → the light is at eye level or above. Drop it to the ground line and aim up; the under-light does the sculpting.

Condensed versions: Starter Kit Builds 6 and 7. Builds: Chapter 9 of this book.

BOOK II — INTERMEDIATE BUILDS

Chapter 1 — The Breathing Grave, Full Treatment: The Hidden Motion System

HAUNT #002's grave breathes on THE HIDDEN MOTION SYSTEM: motor, timer, concealment. This is the full treatment — the version where the mechanism is drawn, dimensioned in words, and tuned — plus the genre's second drive (the low-speed motor and cam) documented as the alternate mechanism, with the record's own two-spec flag stated instead of hidden.

What you need

- Air pump, quiet aquarium class — hygger
- Timer relay, 12V programmable — UCTRONICS (set to 4-second cycles, of record)
- Orange spotlights, 2-pack — LOHAS (backlight)
- A hollow foam mound + a small lifting platform
- Dark fabric (mound cover)
- A tombstone for the head of the grave (Beginner Chapter 3)
- ALTERNATE DRIVE (dive spec): low-speed / rotisserie motor · cam arm · burlap over a foam or chicken-wire mound form · zip ties / screws · extension cord

Build it

1. 1.1 The effect standard. A grave mound that slowly rises and falls, as if something underneath is breathing. Subtle, silent, and deeply wrong — guests stare for a full minute before they realize why they are uneasy (Starter Kit Build 2). The Beginner test applies at full strength here: you want movement you almost can't see — about two inches of lift, slow, irregular. If a guest can count the rhythm, slow it down.

2. 1.2 Build the mound. Form the mound over the mechanism: chicken wire or a foam shell over the drive, roughly the size of a shallow grave. Under it, the lifting platform — a small plate that rises a few inches at the mound's crown. Drape dark fabric (or burlap, on the motor drive) over the form, then dress with soil, mulch, or dead leaves until no mechanics show. Set the tombstone at the head.

3. 1.3 Drive A — the series drive (of record). An air pump on the UCTRONICS timer relay, set to 4-second cycles (HAUNT #002's own setting), inflates and releases on rhythm; the platform under the mound translates the cycle into lift. The record frames the system's three legs exactly: MOTOR (the platform does the lifting), TIMER (the pump on the relay is the inhale/exhale rhythm), CONCEALMENT (dark fabric hides everything; orange backlight behind the mound sells the silhouette).

4. 1.4 Drive B — the motor-and-cam drive (dive spec). The genre's classic version (genre dive §1.7, Build #1 spec): a low-speed/rotisserie motor turns a cam; the cam arm lifts a lifter plate under the mound skin, so rotation becomes lift. Assembly order from the dive spec: shape the mound → skin with burlap → mount the motor → fit the cam arm → test the cycle → dress with dirt and leaf litter. The cam profile is the tuning: a smooth cam breathes evenly; a cam with a slightly flattened dwell holds the 'inhale' a beat longer, which is the irregularity that reads as alive.

5. 1.5 The two-spec flag, honestly. The parts map of record carries this warning and this book repeats it rather than resolving it silently: two mechanism specs exist on the record for the animated Breathing Grave — the series' air-pump drive (#002 as produced) and the dive's motor-and-cam drive. Both mechanisms are real and both produce the effect. Drive A is what the series showed; Drive B is the genre-standard build with the fuller diagram tradition. Build A if you want the episode's exact prop; build B if you want the version you can tune. Do not hybridize them mid-build.

6. 1.6 Tuning. Rise height ≈ 2 inches at the crown. Cycle: the record's 4-second relay rhythm on Drive A; on Drive B, the motor's native slow speed with the cam dwell doing the irregularity. If the motion is too regular, the Kit's trick still works: add a second, smaller mound on a different timer — two unsynchronized breathers read as a whole restless plot.

Haunter's note: Light it from HAUNT #002's own staging: orange backlight behind the mound, fog from the Beginner book's Chapter 2 drifting across it. Motion you discover inside fog and backlight is the strongest minute in a home haunt.

Troubleshooting

- Mound moves in a visible count → the rhythm is too regular or too fast. Slow the drive; on Drive B, lengthen the cam dwell; on Drive A, lengthen the relay cycle off 4 seconds in small steps.
- Lift is jerky → the platform is binding on the mound form. Give the plate clearance on all sides; the mound skin must float on the plate, never hang on it.
- Mechanism audible from the path → the pump/motor is coupled to a hollow form that acts as a drum. Isolate the drive on a fabric pad and bury the form's edges in soil so the mound reads as earth, not instrument.

Video companion: HAUNT #002 — The Breathing Grave. Drive B diagram tradition: genre dive §1.7, Build #1.

Chapter 2 — Uplight Placement: The Yard Map

HAUNT #013 is the survey that HAUNT #004's system needed: where each zone actually goes. Draw the map before you touch a light — on paper, at dusk, from the street.

What you need

- RGB uplights, 6-pack — Onforu
- Orange spotlights, 2-pack — LOHAS
- Flicker flame bulbs — TMAM
- Paper and a pencil (the map itself — keep it; it is next year's setup sheet)

Build it

1. WASH placement. Floods at the two corners of the house, aimed up the facade. One unnatural color, whole wall. Corner placement wraps the wash around the facade's edges so the house reads as a volume, not a lit billboard.

2. ACCENT placement. One uplight IN FRONT of each tombstone cluster, close to the stone, aimed up at its face. The record's warning is the chapter in one line: behind the prop buys you a silhouette and nothing else — a silhouette has its uses (the Watchers), but an accent light behind a stone lights the yard behind the stone and leaves the face you aged in darkness.

3. FLICKER placement. One bulb, one window, placed on the map, not by vibes (the record's phrase and the rule). Choose the window by sightline: the one a guest sees at the end of the path's longest straight, so the flicker owns the deepest view in the yard.

4. The map discipline. The zones themselves are Beginner Chapter 4; fog for the paths between the lights is Beginner Chapter 2; the whole yard composes in Chapter 4 of this book (Cemetery Layout). The map is where those chapters meet — draw all three layers (wash, accent, fog path) on one sheet and the conflicts show themselves before the ladders come out.

Haunter's note: Setup order on the night: wash first (it defines the background), accent second (aimed at dressed, anchored stones), flicker last (it is one bulb; it takes ten seconds and deserves a decision, not a default).

Troubleshooting

- Accent light creates a hot spot on one stone and leaves its neighbor dark → the light is too close. Back it off and widen; cluster lighting is area lighting at small scale.
- Wash shows the siding's texture like a crime scene → the floods are raking at too shallow an angle from too close. Move them out from the wall; the wash should color the facade, not inspect it.

Video companion: HAUNT #013 — Uplight Placement: The Yard Map. System: Beginner Chapter 4.

Chapter 3 — Sound Timing: The 2-Second Delay Rule

HAUNT #016 is the trigger layer's timing rule — the one that decides whether the scream actually lands. HAUNT #005 built the 3-Layer Audio System (Beginner Chapter 5); this chapter times its second layer.

What you need

- PIR motion-sensor MP3 player (trigger) — Waytronic
- Outdoor Bluetooth speaker, waterproof — SumYanHing IPX7
- A walking guest's pace — the measuring instrument is you, at guest speed

Build it

1. Rule 1 — PLACE. The motion sensor sits about two seconds of walking BEFORE the scare point, aimed ACROSS the path, never down it. A sensor aimed down the path detects the guest head-on at maximum range and gives the sound no time to fire in the right place; across the path, the sensor trips at a known point on the walk, and the two seconds between trip and arrival are your working time.

2. Rule 2 — TIME. The stinger should peak as the guest ARRIVES, not as they trip the sensor. Two seconds of walking is roughly six feet of path (of record). Set the player's delay so the scream's peak — not its onset — lands on the arrival step. A scream that peaks behind the guest is a sound effect; a scream that peaks on the guest is an event.

3. Rule 3 — TEST. Walk it yourself at guest speed and count. Move the sensor, not the prop, until the landing feels unfair (the record's test standard). The sensor is light and repositionable; the prop is dressed and anchored. Every timing problem in this system is a sensor problem until proven otherwise.

4. The same logic, everywhere. The record closes with the generalization this book teaches as doctrine: the same timing logic runs the launch in HAUNT #020 (Professional book, pneumatics) — a jumpscare is a sound-timing problem with air attached. Master the 2 seconds here, on a $30 player, before you time a cylinder.

Haunter's note: Sensor discipline: PIR units need a warm-up after power-on before their detection settles (the SFX dive's control-layer note). Power the trigger layer first, dress the yard while it warms, test last.

Troubleshooting

- Scream fires as the guest leaves the scare point → the sensor is too close to the point, or aimed down-path. Move it two seconds earlier and across the path.
- Scream fires for guests on the sidewalk who never enter → the sensor's cone reaches past the path. Angle it down and across; the trigger zone is the path, not the neighborhood.

- Double-fires on one guest → no lockout. Where the player supports a retrigger delay, set it past the group's pass time; where it doesn't, aim the sensor so a guest crosses its beam once, decisively.

Video companion: HAUNT #016 — Sound Timing: The 2-Second Delay Rule. System: Beginner Chapter 5.

Chapter 4 — Cemetery Layout: Fence, Path, Sightlines

HAUNT #018: random tombstones aren't a cemetery. Layout is the difference. Every system in the Guide lands in one yard — this chapter lays the yard out first, with THE LAYOUT TRIANGLE.

What you need

- Fog machine, 400W — VIRFUN (the fog layer)
- RGB uplights, 6-pack — Onforu (the focal lights)
- Foam tombstones (aged, Beginner Chapter 3) behind a low fence line
- Low garden edging / low fence material (the frame)

Build it

1. Leg 1 — FENCE. A low fence line frames the scene and quietly keeps guests, and their feet, out of the gear. The fence is a contract: inside it, the dead; outside it, the audience. It also hides the ground line where cables, stakes, and chiller duct live.

2. Leg 2 — PATH. One clear route through the yard, and curve it. An S-curve reveals one scene at a time; a straight path spoils the whole yard from the gate. Every curve is a curtain: what is around it is a reveal, and reveals are the currency the whole Guide trades in.

3. Leg 3 — SIGHTLINES. From every step on the path, one lit focal point owns the view. Machines, cables, and cords hide BELOW the sightline, behind the fence and the shrubs. Walk the path at guest height — including kid height — and whatever you can see that isn't a scene is a defect to bury, reroute, or dress.

4. Composing the layers. Build the fog layer with Beginner Chapter 2, place the lights with Chapter 2 of this book, anchor every stone with Beginner Chapter 8. The layout is drawn before any of them go in — the triangle is a plan, and the plan is what makes ten good builds into one haunted place instead of a yard sale of effects.

Haunter's note: The layout chapter is also the safety chapter in disguise: the fence keeps feet off cables, the path keeps guests out of fog-slick grass, and the sightline rule keeps every mechanism invisible *and* untouchable.

Troubleshooting

- Yard reads as a collection, not a place → two focal points are competing in one sightline. Kill one light or turn one scene off-axis; every view gets one owner.
- Guests shortcut across the plot → the path's curve fights the natural desire line. Move the path to where feet already want to go, or fence the shortcut — never scold a guest for the layout's failure.

Video companion: HAUNT #018 — Cemetery Layout: Fence, Path, Sightlines.

Chapter 5 — The Floating Candle: Rated Suspension, Honest Sway

Horizon A Build #2 (genre dive §1.7), with the Work harvest correction applied: the reveal is static/sway — a passive line cannot bob a candle up and down, and this book does not pretend otherwise. Five to seven lit candles hang over a dark porch, drifting almost imperceptibly in the night air — impossible for one second, then you see it, and the seeing is the delight.

What you need

- LED taper candles, flameless
- Clear fishing line
- Eye screws / hooks (rated for the load — the candle is light; the rating is the doctrine)

Build it

1. The rig. Pick the rig point: a branch, a beam, a porch joist — overhead structure you trust. Cut lines at staggered lengths. Tie or loop each candle to its line, hang the lines from eye screws set into the structure, and adjust heights after dark until the constellation reads as random, not arranged. The mechanism diagram is one card: overhead point, clear line drops, LED tapers. At night the line is invisible — that's the whole trick (dive spec, of record).

2. The honesty note (harvest patch F01). A suspended candle sways; it does not travel. Any version of this build that shows candles bobbing vertically on plain line is showing you a mechanism it isn't naming. If you want vertical motion, that is a different build with a drive — this chapter is the static/sway candle, hung well. Hung well is enough: the sway of seven candles at seven heights in a light breeze outperforms most motorized props, because the audience can't file it.

3. Composition. The dive's staging note still governs: compose the candles WITH the yard's other builds in frame — above the breathing grave, along the cemetery path. The series is a yard accumulating, and the candle chapter is where a single porch becomes a scene.

Haunter's note: Cost context from the dive: viewer cost ≈ $15–20 — labeled UNVERIFIED in the dive's own record and repeated here as indicative only. The parts are commodity; the craft is the hanging.

Troubleshooting

- Candles read as 'hung' instead of 'floating' → the lines are catching light. Use the thinnest clear line that holds the candle, keep light sources below the rig (uplight, not downlight), and hang after dark so you judge the effect in its real conditions.
- Candles tangle in wind → lines too long for the spacing. Shorten drops or widen the constellation; a tangled candle announces the rig louder than any visible line.

Source: genre dive §1.7 Build #2 spec · parts map of record, queued-builds section.

Chapter 6 — The Tombstone Peeper: The Crank-Slider

Horizon A Build #3, with the Work harvest correction applied as the mechanism of record: a head rises slowly from behind a tombstone, pauses, sinks back — one pivot does almost everything, but a pivot with a counterweight does not drive itself. The drive is a crank-slider, and this chapter builds that drive.

What you need

- Foam tombstone blank
- PVC or wood pivot arm
- Counterweight
- Low-speed motor (shares the Breathing Grave's motor class)

Build it

1. The mechanism. The motor turns a crank. A connecting rod from the crank pin drives the pivot arm's lower end, so rotation becomes a slow rise-and-fall arc at the arm's top, where the figure rides. The counterweight balances the figure so the motor works against friction, not gravity — a balanced peeper runs on the smallest motor in the class and runs quietly. Rise, dwell at the top (the crank's geometry gives a natural slow at the arc's peak), sink, rest. One full cycle, endlessly, seamlessly.

2. The build order (dive spec, drive corrected). Cut the foam tombstone → mount the pivot base behind it, hidden → attach the figure to the arm → balance the counterweight until the arm floats neutral → connect the crank-slider and set the arc stop so the figure clears the stone's top edge by a head, no more. A figure that rises too high reads as a puppet; a head that barely dares to look is a haunting.

3. Clearance and load. The harvest gate on this build is a clearance/load check: the figure's arc must clear the stone through the whole cycle (foam flexes; check at the arc's extremes, not the middle), and the counterweight must be secured so it can never drop — a counterweight is a suspended mass over a mechanism guests stand near. Pin it, cage it, or place it where a fall lands in soil behind the fence line (Intermediate Chapter 4's contract).

Haunter's note: Cost context from the dive: viewer cost ≈ $20–35 — UNVERIFIED in the dive's record, indicative only.

Troubleshooting

- Figure rises but won't sink → the counterweight is over-balanced or the slider binds at the arc's top. Re-balance toward neutral and check the rod's alignment through the full revolution, by hand, motor off.

- Motion reads mechanical — same speed up and down → that is the crank telling the truth; soften it with a slightly offset crank pin path or accept a slower motor speed. The genre's answer is slower, not fancier.

Source: genre dive §1.7 Build #3 spec, drive per Work harvest patch · parts map, queued-builds section (two-spec flag of record).

Chapter 7 — Zombie Arm Groundbreaker: One Motor, One Wave

From the genre dive's harvest: a single oscillating motor, an arm waving from ground level — cheap, legible, and the friendliest first motor build in this book (harvest rank: effect 4, simplicity 4, cost $).

What you need

- Low-speed motor (the oscillating class — a gutted oscillating fan's neck drive is the genre's donor mechanism, per the SFX dive's F1 family)
- A zombie arm prop or a built arm (glove, sleeve, stuffing over a light frame)
- Ground cover: soil, mulch, leaf litter, a cracked-earth dress (foam or fabric)

Build it

1. The mechanism. An oscillating drive swings its output shaft through a fixed arc and back — the fan neck's whole job. Mount the drive at ground level, couple the arm to the shaft so the wave reads at the wrist, and dress the base until the mechanism vanishes into the plot: the arm emerges from cracked earth beside a stone, not from a visible machine.

2. The staging. Ground level is the discipline: the arm waves from the dirt line, low and wrong, where guests don't expect motion. Place it at the path's edge inside the fence line (Chapter 4) so it performs inside the scene, at the distance a guest's peripheral vision catches first. A wave that starts in peripheral vision gets a double-take; a wave stared at directly gets a critique.

3. Why one motor matters. This is the F1 family's entry lesson (SFX dive): rotation → oscillation → character. The same drive class, re-costumed, rocks chairs and stirs cauldrons in the Professional book's planned chapters. Learn it here, at ground level, for the price of a fan.

> **Haunter's note:** Keep the drive's arc clear of the fence and the path: an arm that slaps the fence on every cycle announces its arc and its limits in one sound.

Troubleshooting

- Wave reads as a machine waving → the arc is too wide or too fast. Narrow the coupling point toward the shaft (shorter throw) and let the glove's looseness add the irregularity.
- Arm stalls at the arc's ends → the load is off-axis. Re-mount so the shaft's plane matches the arm's swing plane; side-load is what kills small drives.

Source: genre dive §1.4 harvest (#5) · SFX dive F1 mechanism family.

Chapter 8 — Moving Portraits: The Frames That Change

An indoor build, cheap and very adaptable (genre dive harvest): portraits on a hallway wall that are not the same portraits when a guest looks twice.

What you need

- Frames with glass (thrifted, mismatched — uniformity is the enemy)
- Printed portrait pairs: the sitter, and the sitter *changed* (the two-state print set)
- OR a small screen/tablet per frame for the swap version
- Matte prints (gloss telegraphs the trick under haunt light)

Build it

1. The static version. Print each portrait in two states — composed, and wrong (eyes darkened, head turned a few degrees, a second figure in the background who wasn't there). Hang state one. Between groups — or between a guest's first pass and their return down the hall — swap to state two. The scare is the argument afterward: 'that wasn't like that before.' 'Yes it was.' It wasn't.

2. The screen version. A tablet behind a frame's mat, running a loop that holds the composed portrait for minutes, then cross-fades to the changed one and holds. The change must be slower than attention: a fade a guest can catch mid-change is a video; a portrait that is simply *different* now is a haunting. This is the Beginner Haunted Mirror's discipline (Chapter 7 of the Beginner book) pointed at a wall of ancestors.

3. Print craft. Age both states identically — same paper tone, same vignette — so the only difference is the wrongness. Print at the frame's full size; a small print floating in a big frame reads as a poster, not a portrait.

Haunter's note: Hang portraits in a sequence a guest walks along, and put the boldest change in the middle frame: the first change primes suspicion, the middle one confirms it, and the last frame — unchanged — becomes the scariest, because now they're checking all of them.

Troubleshooting

- Guests spot the change happening → the loop's fade is too fast or too frequent. Lengthen the hold; rarer is stronger. One change per guest-visit is the ceiling.
- Portraits read as prints, not paintings → gloss and bright whites. Print matte, tone the whites down to cream, and light the wall dim and warm (Beginner Chapter 12's palette).

Source: genre dive §1.4 harvest (#19) · Horizon A candidate list, SPOOKY_BUILD_QUEUE.

Chapter 9 — Corpsed Skeleton: Wrap, Melt, Stain

No motor at all — a transformation build and a genre rite of passage (genre dive harvest: effect 4, simplicity 5, cost $). A bargain skeleton becomes a corpse with three materials and patience. As a chapter it is a process, not a mechanism — and the physical-truth rule applies to process too: every step below is the real craft, in the real order.

What you need

- A plastic skeleton (the standard articulated kind)
- Clear plastic sheeting / plastic wrap (the skin)
- A heat gun
- Stain — wood stain or thinned dark paint (the rot)
- Optional: a little cotton or latex for tendon texture

Build it

1. Step 1 — Pose first. Decide the corpse's final pose before any corpsing: reclined in the coffin (Beginner Chapter 9), seated against a stone, reaching from the plot. Corpsing locks a pose; pose is storytelling, so pose like it matters.

2. Step 2 — Wrap. Wrap the bones in clear plastic sheeting, unevenly — tight where tendons would pull, loose where skin would sag. Overlap seams along the limbs' undersides. The wrap is the skin layer; its wrinkles become the corpse's wrinkles, so wrap with intent, not coverage.

3. Step 3 — Melt. Heat gun on a low-to-medium setting, kept moving: the sheeting shrinks, puckers, and fuses into something organic and wrong. Work in passes and step back often — the line between 'corpse' and 'melted toy' is about ten seconds of heat. Ventilate: you are heating plastic. Outdoors or a open garage, always, and never leave the gun resting on the work.

4. Step 4 — Stain. Stain settles where rot would: joints, recesses, the low side of every bone. Apply, then wipe back so the high points keep a bone pallor under the grime. Two thin passes beat one thick one — a corpse is translucent decay, not brown paint.

5. Step 5 — Rest. Let it cure fully before dressing the scene. A fresh corpsing under haunt light looks wet; a cured one looks old. Old is the goal.

Haunter's note: Safety, plainly: heat gun + plastic = fumes and burns. Ventilation, gloves for the stain, and the gun never points at anything you aren't corpsing — including the skeleton's own thin sections, which warp past character into damage.

Troubleshooting

- Skeleton still reads as a toy → the wrap was too uniform or the stain too even. Add a second, partial wrap layer at the torso and hands, and deepen stain only in the joints.
- Plastic melted through in spots → heat lingered. Patch with a fresh sheeting scrap fused at the edges — a patch, honestly worked in, reads as a wound, which this prop forgives.

Source: genre dive §1.4 harvest (#6) · Horizon A candidate list.

Chapter 10 — The Levitating Object: The Hidden Support

A static illusion (genre dive harvest): a teapot pours forever into a cup it never fills, or a lantern hangs in a doorway with nothing above it. Tabletop scale, one hidden relationship: the support you cannot see.

What you need

- The object (teapot + cup, lantern, book — anything with a story)
- A rigid support rod or strip (steel or stiff acrylic), matte black or painted to the background
- A weighted base hidden inside the lower element
- Background-matched paint

Build it

1. The principle. The support runs where the eye doesn't audit: inside the pour stream, behind the object's own silhouette, along the line the scene already draws. A teapot's support hides in the falling 'water' — a clear or dark rod inside a stream of hot-glue or resin reads as the pour itself. A lantern's support runs flat against the door frame's shadow edge, painted to the frame.

2. The build. Anchor the support to a base with real weight — the illusion fails mechanically before it fails visually if the base can tip. Fix the object to the support's top, then view from every audience angle and move the support within the object's shadow until no angle betrays it. Light from the front-side, never from behind: backlight silhouettes the support into a confession.

3. The discipline of stillness. A levitating object must not tremble. Any sway reads as 'hung,' and hung is death to this illusion (compare Chapter 5's candles, where sway is the charm — different illusion, different physics, different promise). Rigid, weighted, still.

Haunter's note: Judge it in a photograph. The camera finds supports the eye forgives — and guests will photograph this one, so the photo *is* the acceptance test.

Troubleshooting

- Support visible in photos → it catches a highlight. Matte it flatter and re-angle the key light; a support in shadow is invisible, a support in specular is a diagram of the trick.
- Object drifts off-level → the base shifted or the support flexed. Re-weight the base and shorten the support's free length.

Source: genre dive §1.4 harvest (#9) · Horizon A candidate list.

Chapter 11 — Poison Apple & the Morphing Statue: Two Tabletop-Scale Effects

Two small builds that share a chapter because they share a lesson: a single light source, honestly used. One LED makes a poison apple glow in a hand or a bowl (genre dive harvest: tabletop, fairy-tale recognition). One blacklight makes a statue change its face.

What you need

- A prop apple (or a real one, night-of)
- One LED + coin cell or a small battery pack (the glow heart)
- A hand prop or a bowl (the presentation)
- A statue or bust prop
- UV-reactive paint + a matching non-reactive paint (the two faces)
- A UV blacklight source (Yacolit class, per HAUNT #008/#014)

Build it

1. **11.1 Poison Apple.** Hollow the apple from the base, seat the LED inside, and let the fruit's own skin be the diffuser — a real apple glows like a coal; a prop apple needs its interior thinned or a frosted inner surface to glow evenly rather than spot. Present it offered: in a hag's hand at the path's edge, or in a bowl of dull apples where one is lit. One lit apple among dull ones is a story; a bowl of lit apples is a store display. Battery discipline: coin cells dim across a long night — test the glow at hour four, not hour zero, or use a wired pack hidden in the bowl.

2. **11.2 Ghostly Morphing Statue.** Paint the statue twice: the daylight face in ordinary paint, the second face — eyes, mouth, the wrong expression — in UV-reactive paint, invisible under normal light. Under blacklight the second face surfaces through the first and the statue changes. The craft is registration: the two faces must share the sculpture's real features (the UV eyes sit in the statue's actual eye sockets) or the morph reads as graffiti instead of possession. Light it on a switch or a timer: normal light, the ancestor; blacklight, the tenant. The Glow Test (HAUNT #014) applies — test your paints under your bar before the statue gets either face.

Haunter's note: Both effects are threshold effects: small, close, and timed for the guest who leans in. Place them where the path slows — at the fence gate, at the coffin's shoulder — never in the fast walk-through where tabletop scale gets missed.

Troubleshooting

- Apple glows with a visible hot spot → the LED points at the skin. Turn it to fire into the fruit's core or add a diffuser layer; the glow must come from the apple, not from a bulb inside an apple.
- Statue's second face shows in daylight → the UV paint is visible as a sheen difference. Match the paints' finish (matte to matte) and test under the actual daylight the statue will sit in.

Sources: genre dive §1.4 harvest (#11, #10) · Horizon A candidate list.

Chapter 12 — The Dollar-Store Skeleton Upgrade: $1.25 to Pro-Prop

The before/after build (genre dive harvest: huge search demand for cheap, simplicity 5). The dollar-store skeleton is a toy because of three specific failures — shiny, jointed like a toy, and the color of a pool noodle. This chapter fixes the three failures, in order, for the price of the paints you already own from Beginner Chapter 3.

What you need

- A dollar-store skeleton (the $1.25 class, price of the record's naming)
- Matte spray (the shine killer — Beginner Chapter 3's base discipline)
- Dark wash / stain (the age)
- A few screws or glue + wire (the pose lock)
- Optional: Chapter 9's sheeting for a partial corpsing

Build it

1. Fix 1 — Kill the shine. A full matte coat. Shine is the sound of plastic; matte is the beginning of bone. This is the 3-Coat system's base coat pointed at a whole figure instead of a stone.

2. Fix 2 — Age it. The wash: dark tone into every joint, socket, and tooth line, wiped back from the high points. A toy skeleton is one color; a real one is fifty. The corpsing chapter (Chapter 9) is this fix's big sibling — a partial corpsing (hands, ribs, skull) upgrades this build into that one at half the time.

3. Fix 3 — Lock the pose. Toy joints flop to neutral; corpses hold a decision. Wire or screw the joints into one committed pose — head turned, one arm raised mid-reach — and dress it into the scene so the pose is a sentence: reaching for the gate, climbing from the plot, sitting in the chair it died in.

4. The before/after discipline. Photograph the skeleton as bought, under haunt light, before you touch it. The upgrade's proof — and the build's whole social life — is the pair of photographs. This is the harvest's note on the build: before/after IS the hook.

Haunter's note: The dollar-store upgrade is the Beginner book's aging doctrine wearing a new skeleton: same matte, same shadow, same life. If Chapter 3's stones aged well in your yard, this chapter cannot fail — it can only be rushed.

Troubleshooting

- Upgraded skeleton still reads cheap → the joints are at factory neutral. The pose is the price tag: commit it harder, and add grime specifically at the joints where the toy articulation shows.
- Wash made it muddy instead of old → too much tone, left too long. Wipe back harder; bone should dominate, grime should argue.

Source: genre dive §1.4 harvest (#7) · Horizon A candidate list.

Chapter 13 — Safety Foundations: Outdoor Power & Cable Doctrine

The safety chapter runs in every book of the Guide, unchanged — because every level plugs in, and because a haunter who adds motors adds loads. HAUNT #019 is the record; the doctrine below is Beginner Chapter 11, carried verbatim in substance, with the Intermediate load note added.

What you need

- Outdoor-rated extension cords
- A GFCI-protected outlet
- A covered weatherproof box
- Flat cable covers
- Timers

Build it

1. Rule 1 — DRY. Connections live off the ground, inside a covered weatherproof box, with a drip loop in the cord before the box so water runs down the loop instead of into the plug.

2. Rule 2 — RATED. Outdoor-rated cords only, on a GFCI-protected outlet. Add up the watts on the circuit: a standard household circuit is 15 amps / 1,800 watts nameplate; plan at 80% — 1,440 watts — for loads that run for hours. Devices print their draw on the label; the label wins over any number in this book.

3. Rule 3 — ROUTED. Cables along edges and fence lines, never loose across the walk path; where one must cross, under a flat cable cover.

4. The Intermediate note. This book adds motors — small DC loads, but they arrive with power supplies, and power supplies are mains devices. Every supply lives in the weatherproof box on the GFCI run, and only the 12V line travels to the prop (the SFX dive's genre-standard architecture, and the Professional book's whole power doctrine). A yard of 12V props on one boxed supply is a safer yard than a yard of extension cords — count the supply's draw in the power chapter's arithmetic, not each motor's.

Haunter's note: A tripping GFCI is a report, not an inconvenience. Never defeat or bypass one to keep a show running. Find the wet connection by halving the run, then box and drip-loop the guilty joint.

Troubleshooting

- Breaker trips after adding a build → re-run the paper arithmetic; split machine loads and light loads across two circuits.
- A motor's supply runs hot in the box → it is undersized for the load or the box is sealed in sun. Size supplies with headroom and shade the box; heat is the review your wiring gives you before the failure.

Video companion: HAUNT #019 — Outdoor Power & Cable Safety. Safety review: see the build report.

Planned Contents — In Production

Professional preview — in this book's final pages, the Professional Builds launch chapters (Projection Mapping, Pneumatics, the Flying Crank Ghost) are the road ahead. The Intermediate book's own next layer — the Life-Size Crypt Fog Chiller, the Rocking Tombstone, and the Modular Cemetery Fence — is in production and joins this book as chapters complete, announced to owners of record. Nothing on this page is a chapter you are missing today; it is the map of where the Guide goes next.

How completion works: chapters are added to the same books as they clear the verification standard — never as a seasonal edition, never as a new purchase for owners of record. Announcements ride the Spooky At Heart page and the list first.

BOOK III — PROFESSIONAL BUILDS

Chapter 1 — Projection Mapping, Full Treatment: The 3-Surface System

HAUNT #007: you're not animating anything — you buy the loop and aim the projector. That is the beginner's summary. This chapter is the professional's version: the three surfaces as separate crafts, the brightness truth, and the alignment discipline that separates a mapped house from a house with a movie on it.

What you need

- Rear-projection screen, 120-inch — AAJK holographic (window surface)
- Digital decorations USB kit — HoliScapes Ghostly Apparitions (AtmosFX) (content layer)
- A projector — deliberately unlinked in this book (the record's rule, §1.3 below)
- A media player or laptop (playback)

Build it

1. 1.1 Surface one — WINDOWS. Rear-projection film or screen on the inside of the glass, projector inside the house. Ghosts in the windows: the figure is inside the room, the glass is the screen, and the yard sees an occupied house. The window is the easiest surface — it is flat, framed, and its size is fixed, which makes it the calibration surface for everything else you project.

2. 1.2 Surface two — WALLS. Project straight onto siding or brick: crawling textures, bleeding walls, swarms. The wall is the spectacle surface and the least forgiving — every seam and texture of the siding joins the image. Choose content that uses the texture (cracks, creep, swarm) rather than fighting it (faces and text belong on the window).

3. 1.3 Surface three — GROUND. Aim down at the driveway or yard: cracks opening, things crawling out. The ground surface performs for guests standing in it, which makes it the interactive one — and the one where the projector's mounting height and the guests' sightlines must be planned together (Chapter 2's throw math governs all three).

4. 1.4 The brightness truth (the record's rule). Projector listings change fast and advertised lumens lie: buy on TRUE ANSI lumens, not marketing lumens. The SFX dive's figure for outdoor work is 3,000+ true ANSI lumens (F6). The episode's minimum viable setup is of record: one 3000-lumen projector plus one window — about $250 that stops traffic, reusable every year (HAUNT #007). This book does not link a projector, on purpose, for the record's reason: the listing you buy must be judged by its manual's ANSI figure and throw ratio at purchase time, not by any book's snapshot.

5. 1.5 Content. The digital decorations kit is the content layer of record (HoliScapes / AtmosFX class) — ready-made loops built for these three surfaces. Bought content is not a shortcut in projection; it is the medium. The craft this chapter teaches is surface, aim, and alignment. (Home-animated content is real — the lane's own studio produces it — but a first mapping season should calibrate on loops made for the purpose.)

Haunter's note: Minimum viable, maximum lesson: start with the window. One projector, one surface, one loop, aligned perfectly teaches more about mapping than three surfaces aligned approximately — and it is the setup the after-season score can fund.

Troubleshooting

- Ghost looks washed out → ambient light is winning. Map after full dark, kill the porch light on that face, and check the ANSI figure you actually bought against the surface's size — an under-lumened projector on a big wall is a gray rectangle with ambitions.
- Wall content looks broken → the siding's texture is fighting detailed content. Move faces and fine detail to the window; give the wall textures, weather, and swarms.
- Image bleeds past the window frame → the projector is too close or the loop's frame doesn't match the window's aspect. Back the projector up or choose the loop framed for the surface; keystone is for tilt, not for framing (Chapter 2).

Video companion: HAUNT #007 — Projection-Mapping Your House. Throw math: Chapter 2.

Chapter 2 — Projection Throw Distance, Measured

HAUNT #017 — THE THROW RULE. The measurement that makes the window ghost the right size, written as the working procedure the Professional book owes you.

What you need

- Your projector's manual (the throw ratio lives there — it is a source document, not packaging)
- A tape measure
- The surface itself, measured first

Build it

1. **Step 1 — MEASURE the image you want.** Decide the image width first — most builders fill the window — then check the throw ratio in YOUR projector's manual. Throw ratio is the projector's own constant: distance divided by image width. The manual's number governs; no other projector's number substitutes.

2. **Step 2 — PLACE by the math.** Throw distance is lens to screen, and wider image means more feet. The record's field figure: most budget projectors land somewhere around a foot and a half back per foot of image width. Count it out — don't eyeball it. Mark the projector's position on the floor before the first test night and the setup becomes repeatable every night of the season.

3. **Step 3 — TEST in real dark.** Set up before dark and focus once, in real dark. Fix tilt with the keystone setting, not by re-shimming the projector all night — keystone corrects geometry; shims correct a setup that should have been measured. Re-focusing nightly is a symptom: it means the projector moved, which means its position wasn't marked, which means Step 2 was eyeballed.

4. **The surfaces, by throw.** Windows fix the image size for you (the frame decides), which is why Chapter 1 calibrates there. Walls let you choose size — and therefore distance — so the wall's throw is a design decision: bigger is dimmer at the same lumens (the same light spread over more surface). Ground throws are short and steep; the constraint is mounting height and keeping guests' shadows out of the image, or in it, on purpose.

Haunter's note: Write your throw numbers on the yard map (Intermediate Chapter 2's sheet, extended). A mapped house that can be re-aimed from a written sheet in twenty minutes is a professional setup; one that lives in someone's memory is a rehearsal that never ends.

Troubleshooting

- Ghost smaller than the window with the projector at the wall → the room is too shallow for that projector's ratio on that window. Swap to a shorter-throw unit or accept a smaller ghost framed inside the window with black borders — a framed ghost beats a cropped one.
- Focus drifts between nights → the projector is being moved by cleaning, pets, or vibration. Mark the feet positions, and focus becomes a check, not a ritual.

Video companion: HAUNT #017 — Projection Throw Distance, Measured.

Chapter 3 — Pneumatics I: The Jumpscare Stack

HAUNT #009: how pro haunts do jumpscares. A prop that does nothing — then, in a fraction of a second, lunges. Speed is the scare: electric motors ease in; compressed air snaps. This chapter builds the stack; Chapter 4 teaches the pressure doctrine that keeps it honest. Read both before you buy a single fitting.

What you need

- Solenoid valve, 12V pneumatic — Baomain (of record)
- PIR motion-sensor trigger — Waytronic player/controller class (of record)
- A pneumatic cylinder, sized to your prop (bore and stroke verified against the listing before buying — the record's caveat)
- A small air compressor — or a CO2 tank for portability
- Rated air line, fittings, and a regulator with gauge (Chapter 4 — metal/rated components only)

Build it

1. Leg 1 — MECHANISM. A pneumatic cylinder mounted vertically behind or below the prop body. The cylinder is the muscle: on the valve's signal it extends and the prop lunges along the cylinder's line. Mount for the lunge you want — the prop travels the stroke, so the stroke is the scare's distance. Keep the arc's end padded and its path empty (Chapter 4's test-zone doctrine).

2. Leg 2 — AIR. A solenoid valve on a small compressor (or a CO2 tank for portability) does the firing. The signal flow is: trigger → valve opens → air dumps to the cylinder → prop fires → exhaust sets the return. Exhaust flow controls set the return speed so the prop resets without slamming (SFX dive, F3) — a prop that slams home teaches the audience it's a machine; a prop that settles back teaches them nothing, which is the point.

3. Leg 3 — TRIGGER. A PIR motion sensor launches the prop when someone gets close. The build is straightforward; the SCARE is in the timing (the record's line). Timing doctrine is Intermediate Chapter 3 — the 2-Second Delay Rule — applied to air: sensor placed by walking time, peak of the lunge on the guest's arrival step. Hide the mechanism completely: the prop should look static until it isn't.

4. The audience truth (SFX dive, F3). Most viewers will never build one of these — and they follow the series to watch it fire. Build yours to the doctrine anyway. A jumpscare that hurts someone ends a haunt, a street's trust, and possibly more; a jumpscare built to Chapter 4 becomes the story guests tell at work on Monday.

Haunter's note: SAFETY — non-negotiable, from the episode record, repeated here and expanded in Chapter 4: limit the stroke, pad the prop, never aim at face height, and test without guests first.

Troubleshooting

- Prop fires late → the trigger leg, not the air leg. Apply Intermediate Chapter 3: move the sensor earlier and across the path; air is fast, walking is slow, and the math is walking math.

- Return slams → exhaust flow too open. Close the exhaust control in small steps until the prop settles; slamming also fatigues mounts and shortens the cylinder's life.
- Prop creeps or half-fires → pressure too low for the load or a leaking fitting. Chapter 4's doctrine: find the lowest pressure that reliably moves the prop — after the leak is fixed, with soap solution on the joints, not by ear.

Video companion: HAUNT #009 — The Pneumatic Jumpscare. Pressure doctrine: Chapter 4.

Chapter 4 — Pneumatics II: Pressure Doctrine, Safely

HAUNT #020 plus the SFX dive's safety block — the chapter this book exists to get right. HAUNT #009 built the stack and glossed the question this chapter answers: how much air to actually give it.

What you need

- The air path, in order: tank → regulator → valve → cylinder
- A regulator with a gauge (the boss of the rig)
- A pressure-relief valve (rated, on the storage side)
- Metal / rated components throughout the air path

Build it

1. 4.1 THE PATH. Tank, regulator, valve, cylinder. The regulator dial is the boss of the whole rig (the record's doctrine). Everything downstream of the regulator lives at the pressure the regulator allows; everything upstream lives at storage pressure and is treated with storage respect.

2. 4.2 START LOW. Set the lowest pressure that reliably moves the prop, then creep up in small turns, testing every change. More pressure is not more scare — it is more wear, more noise, and a harder hit (of record). The dive's working band for the family: a reservoir at 60–120 psi — and your prop's number is the lowest reliable point you find by testing, not the top of any band.

3. 4.3 THE TEST ZONE. Every test happens with the swing path empty, inside a marked zone, before guests ever see the prop move. The zone is marked physically — a rope, a fence line (Intermediate Chapter 4's contract), a second person whose only job is the zone. No test is casual: a test is a firing with paperwork habits.

4. 4.4 NEVER PVC. The dive's rule, in the dive's emphasis: NEVER PVC for air storage or air lines — brittle shrapnel failure; ASME B31 / OSHA prohibit above-ground PVC in compressed-gas service. Metal and rated components only. This rule has no exceptions, no 'just for the short run,' no 'it's only 40 psi.' PVC is fine as structure (a prop's frame) and never as an air path. The two uses are different materials decisions and this book never blurs them.

5. 4.5 The rest of the standing block (SFX dive §5, pneumatics). Regulator + pressure-relief valve, always. Working pressure stated and capped. Dump stored air when unattended — a charged rig with nobody home is a stored decision nobody is supervising. Cylinders pinned, never clamped by the rod. No face-height trajectories. Stroke limiters + padded impact surfaces — #009's rule, carried forward.

6. 4.6 Power for the rig. The valve and trigger run on 12V DC from a protected supply (dive architecture): mains stays at the supply, in the weatherproof box, on the GFCI run (Intermediate Chapter 13). The air is the hazard this chapter manages; the power doctrine keeps electricity from becoming a second one.

Haunter's note: The lane's trust position IS this chapter (the dive names it for Monster in a Box; it is true for every air build): a guide for beginners and experts that gets a pressure number wrong destroys the brand the funnel monetizes. When this chapter and your enthusiasm disagree, this chapter wins.

Troubleshooting

- Prop won't move at low pressure → do not reach for the dial first. Check for leaks, a binding mount, and an undersized cylinder (bore/stroke against the prop's weight) — pressure is the last variable, not the first.
- Valve chatters or fires weakly → supply voltage sag at the solenoid. Shorten the 12V run or size the supply with headroom; a starving valve mimics an air problem.
- You are tempted to store the rig charged 'just for the weekend' → dump it. The doctrine in 4.5 is one line long because it is meant to survive tired evenings in late October.

Video companion: HAUNT #020 — Jumpscare Pressure Basics, Safely. Stack: Chapter 3.

Chapter 5 — The Flying Crank Ghost: The Flagship

The genre's crown jewel (SFX dive, F4): a blacklit ghost that floats in a yard or window, rising, falling, and gesturing with both arms — independently, organically, endlessly. It stops traffic. Doug Ferguson (Phantasmechanics) pioneered it and made the plans public domain in 1997; Make: calls it 'a haunting classic' that 'literally stops cars in front of homes.' This chapter joins that tradition with the Guide's own full treatment.

What you need

- One slow motor (the crank drive — low-speed class)
- The crank + pulley system (three lines: head + two hands)
- Black monofilament line (the rigging — invisible by design)
- A cheesecloth-and-wireframe figure
- A UV/blacklight source (the Yacolit class — Beginner Chapter 6's bars serve here)

Build it

1. **5.1 The mechanism — one motor, three lines.** One slow motor turns a crank. Three lines — head and two hands — run from the crank/pulley system to the figure. Because the three lines attach at different crank radii and phases, head and arms move on different cycles from a single motor: the head bobs on the long cycle, one hand gestures against it, the other answers late. The complexity is in the geometry, not the parts count (dive, F4). The harvest correction rides here too: the line motions share a period — one crank, one revolution — with geometry-dependent phase. Nothing in this rig moves on its own clock; the illusion of independence is phase, arranged.

2. **5.2 The figure.** Cheesecloth over a wireframe: light enough for the lines to carry all night, translucent enough to take blacklight like a body takes moonlight. UV makes the dyed cheesecloth glow while the black monofilament rigging vanishes — the rigging is invisible, so the brain can't file the ghost as a machine. Build the frame at the scale of your throw: the ghost reads at the distance the yard gives it, and a too-small ghost at a long distance is a rumor, not a haunting.

3. **5.3 The rig.** The crank wants height and an anchor the wind respects — the overhead line runs are long, and long lines are sails in a gust. Anchor the drive point like the Intermediate book anchors its counterweights: pinned, caged, or placed where a failure lands in soil behind the fence line. Set the crank's speed slow: the ghost's whole authority is patience. A hurried ghost is a puppet; a patient one is a presence.

4. **5.4 The blacklight.** Phantasmechanics' own rule, quoted in the dive: blacklight never aimed at audience eyes. The UV source lights the figure from the side or below and its beam never crosses a sightline at face height. Test from every audience position: the figure should glow; the audience should never see the source.

5. **5.5 Why this is the flagship.** It is the most beautiful motion in the genre and the most mysterious, because there is nothing to see. Every other build in this Guide shows you its

mechanism somewhere — a pump, a valve, a projector. The crank ghost shows you a ghost. When your yard can do this, the yard is done arguing about whether it is a real haunt.

Haunter's note: Cost context from the dive: parts band $60–150, Tier 2 tools — labeled ESTIMATE in the dive's record (motor + pulleys/line + cheesecloth + blacklight, the blacklight pillar-verified at $15–25). Indicative, not a quote.

Troubleshooting

- Arms move in lockstep with the head → the three lines share a radius or a phase. Spread the attach points across the crank's radii; phase difference is the whole choreography.
- Ghost looks like laundry in daylight → it does. This build is judged only after dark, under its UV, from the street. Daylight opinions of night builds are how good haunts get talked out of existing.
- Lines tangle across a windy night → the run is too long for the exposure. Shorten the throw, add a guide pulley to discipline the longest line, or move the ghost to the yard's sheltered face.

Dive source: SFX dive F4 (mechanism + lineage) · Queue: Flagship #1 of the SPOOKY SFX pipeline.

Chapter 6 — Safety Foundations: Outdoor Power & the 12V Doctrine

The safety chapter, Professional edition. The doctrine is HAUNT #019 — unchanged — plus the architecture this level runs on: 12V DC at the prop, mains at the supply, and the discipline that keeps a professional yard's power boring. (The dive's rule: a plan that undersells a hazard is a refund-and-reputation event; in pneumatics and mains work it is worse than that. Chapter 4 covers air; this chapter covers everything that plugs in.)

What you need

- Outdoor-rated extension cords
- A GFCI-protected outlet
- A covered weatherproof box
- Flat cable covers
- Timers
- 12V DC supplies, sized with headroom (the prop-side architecture)

Build it

1. The three rules (of record). DRY — connections off the ground, in a covered weatherproof box, drip loop before the box. RATED — outdoor-rated cords only, on a GFCI-protected outlet; add up the watts (15A circuit = 1,800W nameplate; plan at 80% = 1,440W for hours-long loads; the device's label wins over any number in this book). ROUTED — cables along edges and fence lines; crossings under flat cable covers, never loose across the path.

2. The 12V doctrine (SFX dive §5). The genre-standard architecture is 12V DC at the prop from an indoor or protected supply — and this book defaults to it everywhere a build allows. Valves, triggers, motors: 12V at the device, so the yard's working runs carry low voltage and the only mains in the yard is the short, boxed, GFCI-protected list of supplies and Chapter 1-class gear. Anything mains: GFCI circuit, outdoor-rated enclosures and connectors, drip loops, no connections lying in water or fog paths.

3. Weather and weatherproofing. IP-rated components outdoors; vented-but-covered controller boxes; fog and rain rules stated per build — what must come in when it rains is part of each chapter's doctrine, not a judgment call at midnight. Wind and anchoring govern the tall builds: the dive's giant-build warning applies to the crank ghost's rig (Chapter 5) — a figure or a line run is a sail, and the plan states the anchor, not a hope.

4. The test rule. Every build in this book ships with the genre's standing rule: test without guests. First firings, first projections, first ghost flights happen on an empty yard, in the test zone, with the person who built it holding the stop. A professional is not someone who never has a failure — it is someone whose failures have no audience.

Haunter's note: This chapter and Chapter 4 are the book's safety review surface. They were written as a pair, and they are the two chapters to re-read every season before the yard goes live — doctrine decays, and re-reading is the maintenance.

Troubleshooting

- A supply runs hot → undersized or sun-baked. Size with headroom; shade the box; heat is a review, not a smell to ignore.
- GFCI trips when fog runs → a connection sits in the fog path. Move the joint out of the wet line and box it; never bypass the GFCI (Beginner Chapter 11's rule, repeated at every level because every level is tempted).

Video companion: HAUNT #019 — Outdoor Power & Cable Safety. Air doctrine: Chapter 4.

Planned Contents — In Production

In production for this book (planned contents — these chapters do not ship today): Cauldron Creep, the stirring witch (crank/linkage) · the Trigger & Control Layer ('Make Any Prop Smart') · Servo Characters & the Talking Skull · Pepper's Ghost at Room Scale · SPOOKY YARD SYNC, the synchronized full-yard show · Monster in a Box (the cam-lid build) · Axworthy Flying Ghost · the 12-Foot Class: giant-build engineering. Chapters join this book as they clear the Guide's verification standard — mechanism re-check, safety review, second reader — and owners of record are completed first, through the delivery page of record. The Collection carries the same promise for all three books.

How completion works: chapters are added to the same books as they clear the verification standard — never as a seasonal edition, never as a new purchase for owners of record. Announcements ride the Spooky At Heart page and the list first.

Parts links in this book are Amazon searches for the exact part class each build uses, on the Spooky At Heart Associates tag — check the current listing against the build before you buy. As an Amazon Associate, Spooky At Heart earns from qualifying purchases. Prices marked 'of record' are the figures stated in the HAUNT series records and dives at their writing; live prices move, and this book never pretends otherwise.

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