



Slim Workcell



No Compressor



Compressor and Display



Compressor and Backlight

## Overview

Visual Robotics manufactures a wide variety of Vision Guided Robotic Workcells to suit various manufacturing tasks. They all include a Universal Robot and VIM-303 camera and can include an appropriate gripper for the task at hand. Our slim model has a human-scale footprint. Our carts come with a work surface and optional back lighting. Workcells can come with an on-board compressor to provide stand-alone operation with vacuum grippers. Contact Visual Robotics to discuss your requirements in detail.










## VIM-303 Camera

The VIM-303 camera forms the heart of the workcell, providing vision guidance and program control to the robot for pick and place operations.



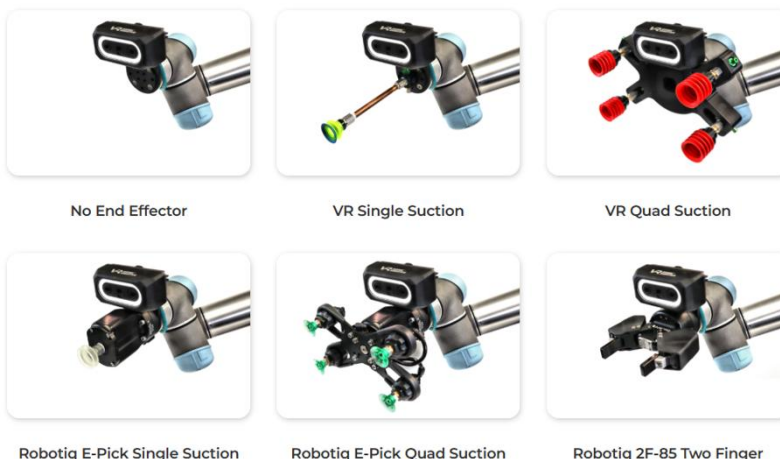
## Robot Arm

Workcells are compatible with the Universal Robots line of robot arms. Some models lend themselves to fixed mounting rather than mobile mounting, in particular any robots with payload over 15kg.

								
<b>UR3e</b>	<b>UR7e</b>	<b>UR12e</b>	<b>UR16e</b>	<b>UR18</b>	<b>UR15</b>	<b>UR30</b>	<b>UR8 Long</b>	<b>UR20</b>
<b>Payload</b>	<b>Payload</b>	<b>Payload</b>	<b>Payload</b>	<b>Payload</b>	<b>Payload</b>	<b>Payload</b>	<b>Payload</b>	<b>Payload</b>
3 kg	7.5 kg	12.5 kg	16 kg	18 kg	17.5 kg	35 kg	10 kg	25 kg
6.6 lbs	16 lbs	27.5 lbs	35.3 lbs	39.7 lbs	38.58 lbs	77.1 lbs	22 lbs	55.1 lbs
<b>Reach</b>	<b>Reach</b>	<b>Reach</b>	<b>Reach</b>	<b>Reach</b>	<b>Reach</b>	<b>Reach</b>	<b>Reach</b>	<b>Reach</b>
500 mm	850 mm	1300 mm	900 mm	950 mm	1300 mm	1300 mm	1750 mm	1750 mm
19.7 in	33.5 in	51.2 in	35.4 in	37.4 in	51.2 in	51.2 in	68.9 in	68.9 in

## End Effector

Select an end effector that is appropriate to the task at hand. For inspection-only tasks, choose no end effector. Our line of single and quad suction grippers are a cost-effective and compact solution for picking small objects and boxes, requiring compressed air. Choosing the on-board compressor results in stand-alone operation. The Robotiq E-Pick gripper is ideal for non-porous surfaces. With its included vacuum pump, no external compressor is needed. For picking up metallic, wood, or plastic objects, the Robotiq two finger gripper is ideal.



## Workcell Frame

Workcell frames are by Visual Robotics using components available from Vention. Frames are assembled from aluminum extrusions, aluminum interconnect plates, plastic panels, locking caster wheels, handles, and fastening hardware. Frames provide mounting for a Universal Robot, and optional accessories such as an air compressor, monitor mount, and interface electronics. Frames can be designed for the task at hand. The frame below is 32" long x 25" wide x 39" tall for reference.



## Air Compressor

The California Air Tools CAT-4610AC provides good air flow and quiet operation. It is mounted on the bottom of the robot cart.



## Return on Investment

Pricing for the workcell depends on the size of the robot, gripper, and cart selection, with some workcells priced under \$100,000. Return on investment depends on labor costs and number of shifts of use, but payback can be under a year. Costs after the payback period are just electricity and maintenance, providing \$50,000 per year in labor savings.

Human Labor Costs	
Warehouse Worker Wages	\$20.00 / hr
Fully Burdened Cost (+30%)	\$26.00 / hr

Robotic Workcell Costs	
Purchase Price	\$100,000
ROI	Single Shift 22 Months
	Two Shifts 11 Months
	Three Shifts 7.5 Months

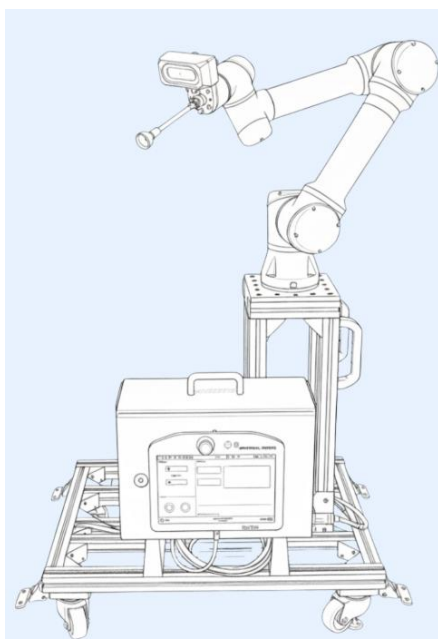
Our robotic workcells are designed to maximize Return on Investment, even in low-volume production environments that are typically challenging for conventional automation techniques. Our ease of programming minimizes development time, enabling you to rapidly adapt to changing work requirements.

The ROI table considers only the burdened cost of labor (taxes, benefits, and infrastructure), without considering other important factors such as safety, worker's compensation claims, quality, availability of labor, and morale.

Our workcells provide you \$50,000 per year in labor savings, with a payback period as little as 7.5 months.

## Next Steps

Contact Visual Robotics to discuss your application in detail. We can choose a turnkey workcell or design you a custom one to meet your requirements.



1

### Discover Your Use Case

Whether you have clearly defined requirements or need some help to determine how to automate your task, Visual Robotics is here to assist you.

2

### Pick a Robot That Matches The Task

The VIM-303 vision guidance camera supports the full product line of robot arms from Universal Robots with payloads up to 75 pounds.

3

### Choose a Gripper and Base

Choose from a wide variety of grippers including vacuum and multi-fingered. Robots can be mounted on mobile or fixed bases.

4

### Deploy and Enjoy!

The workcell will be custom-built to meet your requirements and delivered anywhere in the United States, complete with on-site installation and support.