Glowing Figurines (with LEDs and Hot glue)

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Specialized tools/technology used:	**Experience level required:**
Simple circuits with LEDs and coin cell batteries	Low

Grade Level (of this example): 4 - 8

Topic/Content Standards (for this example):

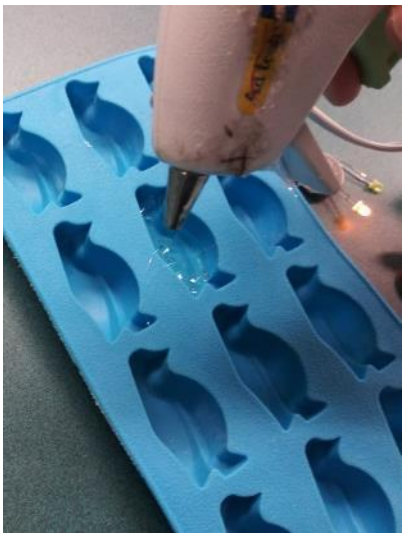
Summary of Project:

Students create decorative/meaningful figures and make them light up with embedded LEDs. Novelty silicone ice cube trays are used for the molds. Hot glue is squirted into the molds to create the shapes. LEDs are embedded in the glue before it hardens. Colored and glitter hot glue sticks work well to create colors and glowing effects. Other items could be embedded in the figure such as sticks for mounting or wire for hanging.

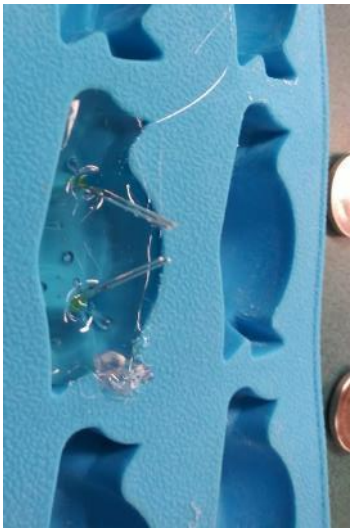
Little experience is needed. Use a couple of hot glue guns to melt enough glue quickly.

The figures can be used as decorations or emblems, and can be controlled by any circuit that provides 3V and 20 mA per LED. Coin cell batteries (CR2032) are fine for powering several LEDs, and do not require current-limiting resistors.

Materials

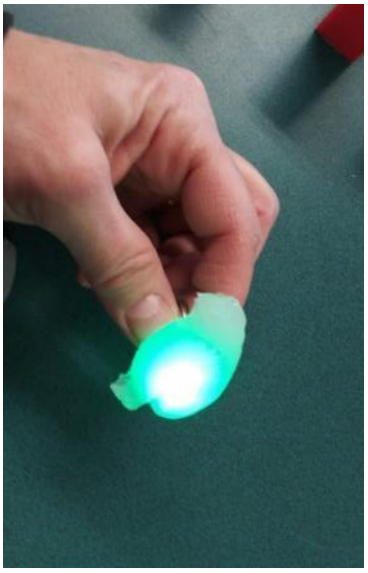


Squirt glue into molds

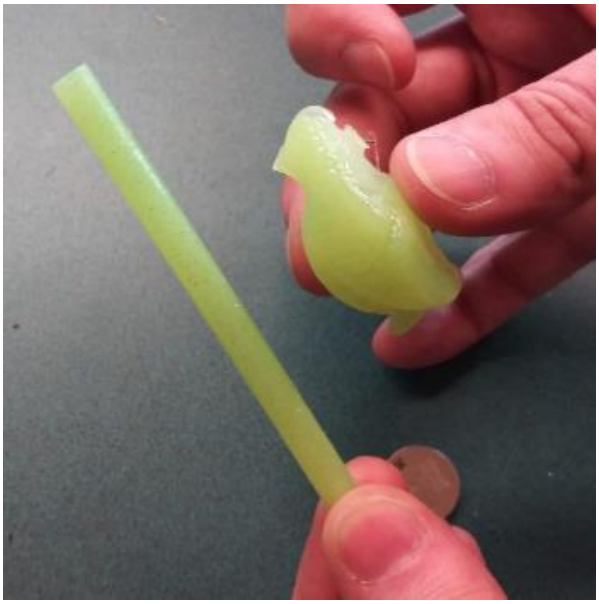


Embed 1 or more LEDs,

keep long wires on same side



Remove figure from mold when cool test with coin cell battery (3V CR 2032)



Try other kinds of glue sticks

Compare and find the materials that work best