

TAKE & MAKE
CRAFT KIT

DIY | MAGNETIC
NIGHTLIGHT
Lights up on metal



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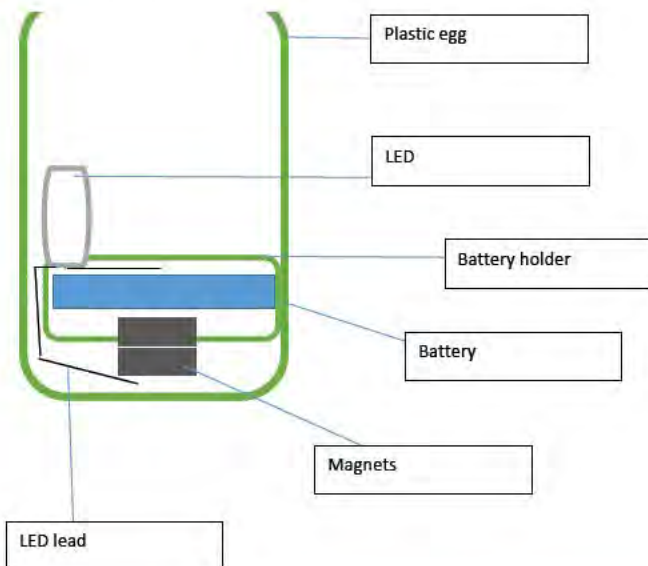


Parts

- Plastic egg
- Battery holder
- Plastic blocker
- 2 neodymium magnets
- 1 button cell battery

How it works

Inside the egg, there is a battery and a magnet connected in an open loop (no current flowing, LED is off). When the egg is placed on a magnetic surface, the magnet connects the lead and completes the loop. The current flows and the LED lights up. Below is a diagram.



Step 1:

Lay out all of your parts. The wires coming out of your LED are called leads. Test the LED on the magnet to determine which wire is the positive lead and which is the negative lead. When the light illuminates, you have completed the circuit.



Step 2:

Take the LED and bend the negative lead away from the positive lead, so it looks like the picture.



Step 3:

Take the battery holder and insert the battery and the unbent side of the LED into the battery holder. In the picture, the negative side of the battery is facing the side of the battery holder WITH NO HOLE. This part can be tricky, so take your time.





Step 4:

Turn over the battery holder so that the hole is facing upwards.



Step 5:

Place both magnets, one on top of the other, into the hole.



Step 6:

Bend the exposed lead of the LED down until it almost touches the magnets. If you push a little farther, your LED should light up.

Step 7:

Flip your battery holder over and nestle the LED into the cutout spot. You may need to adjust the lead on the underside afterwards.

Step 8:

Drop your battery holder + LED + battery into the larger half of the plastic egg. Magnets should be at the bottom of the egg.



Step 9:

Take the blocker and place it into the egg, with the four legs sticking up. Let the legs poke up over the edge just a bit.



Step 10:

Place the lid on the egg. Find something magnetic to stick your egg to. If it lights up, you're done! If not, check the troubleshooting guide.



Troubleshooting:

The egg doesn't light up when placed on metal:

Take the battery + LED component out of the egg and make sure the lead is hanging over the battery. No overlap means no completed circuit.

The LED doesn't light up at all:

Make sure that you have your leads connected properly. (Try putting the LED on with the wires on different sides of the battery).

I broke the leads on my LED:

You'll need to get a new LED.



This project comes from

<https://www.instructables.com/How-to-Make-a-Magnetic-Nightlight-Egg/>



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A Natural Connection