



LEARN ABOUT SIMPLE CIRCUITS WITH THIS

SQUEEZY TORCH KIT



BUILD INSTRUCTIONS

Build the torch by following these simple steps.

1

INSERT COIN CELL INTO FOAM

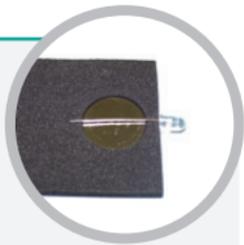
Insert the coin cell battery into the circular cut out in the neoprene foam core. The result should look like the picture shown.



2

PUT THE LED INTO PLACE

Now place the legs of the LED either side of the battery and foam layer, as shown in the picture to the right. The result should look like the picture below. **It is important that the LED is connected to the battery the correct way around otherwise the torch will not work.**



The **longest leg of the LED** should be placed on the **side of the battery marked with the '+' sign**. You can check this by gently holding the legs against the battery. If the LEDs lights then everything is the correct way around.



3

APPLY DOUBLE SIDED TAPE

The next step is to apply double sided tape to one side of each of the white PVC pieces.



4

ATTACH THE FIRST PVC PIECE

Take one of the pieces of PVC, remove the cover of the double sided tape and lay it over the foam inner layer.

Be careful to ensure that it is aligned with the foam centre. When you are happy stick it in place.



5

ATTACH THE SECOND PVC PIECE

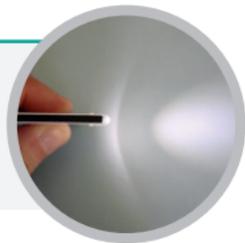
Now turn the torch over and stick the other piece of PVC to the other side of the foam by repeating the actions in step 4.



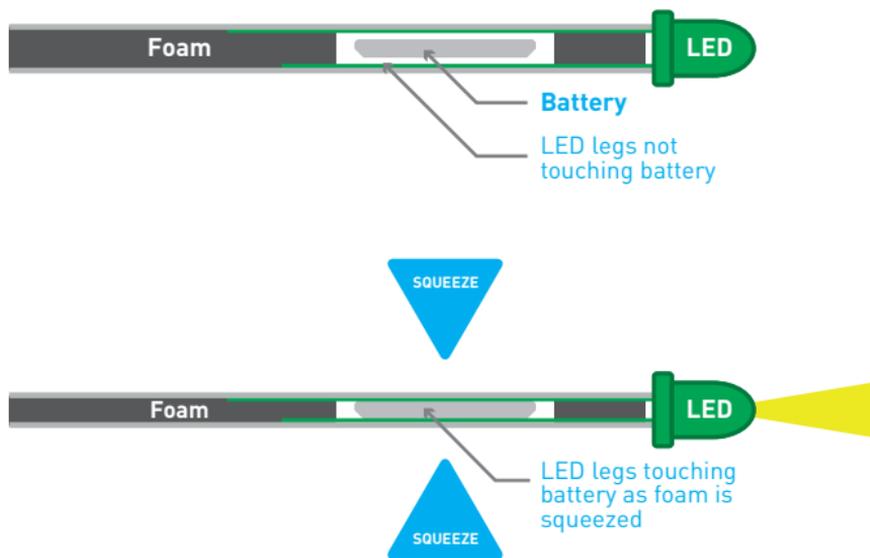
6

TEST THE CIRCUIT

It's time to see if your torch works! Gently squeeze the two white sides of the torch together and the LED should come on.



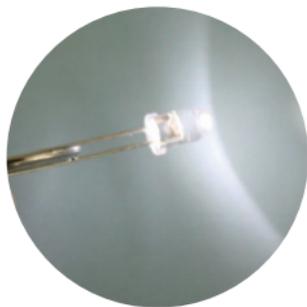
HOW THE TORCH WORKS



The torch works by powering a white LED from a coin cell battery. When the legs of the LED are touched against the terminals (faces) of the coin cell battery by squeezing the foam core, electricity flows from the battery through the LED, causing it to light up.

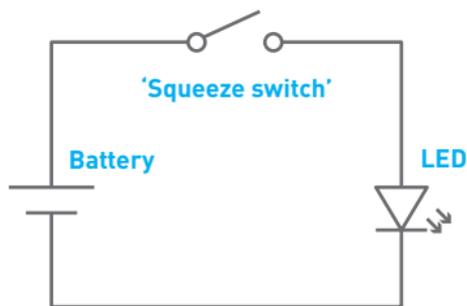
You can try this by placing the coin cell battery between the legs of the LED as shown in the picture to the right. It is important to connect the battery the correct way around

otherwise it will not work. **The longest leg of the LED should touch the side of the battery marked with the '+' sign.**



CIRCUIT DIAGRAM

The diagram below shows the very simple torch circuit.



WHAT'S IN THE KIT?



1 x Ultra bright white LED



1 x 3V coin cell battery (CR2016)



1 x Neoprene foam core



2 x White PVC outer pieces

Optional parts

- Paints, glue, glitter etc to decorate the finished torch.

The corners can be cut and shaped and torch can be decorated.

BATTERY LIFE

The battery will last for approximately 4 hours while the torch is in use.



The squeeze torch kit is an incredibly simple kit. It requires no soldering and can be built by people who have no electronics experience at all. Once built the torch is turned on by squeezing/squashing the torch. This compresses the foam core which causes the legs of the LED to touch the battery, turning it on.

Kit of parts



TOOLS REQUIRED:

- Double sided tape (included in retail version)
- Scissors



INSTRUCTIONS:

This booklet contains build instructions and a circuit explanation. For more detailed resources please visit our website at www.kitronik.co.uk/2148



KIT INCLUDES

Coin cell battery



STOCK CODE

2148 or 1048 (Retail Version)



WARNING: Contents may inspire creativity

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For more information on RoHS and CE please visit kitronik.co.uk/rohs-ce. Children assembling this product should be supervised by a competent adult. The product contains small parts so should be kept out of reach of children under 3 years old.