

Rainbow Butterfly



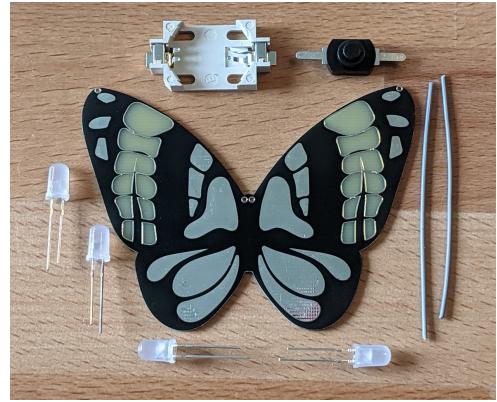
Quantity	Description
4	RGB LEDs 5 mm
1	Push button
1	CR2032 battery holder
1	Cable, stiff
1	CR2032 battery (not included)
1	Board (PCB)

Difficulty: ●●○○○ Build-Time: 30 – 60 Minutes

Manual v1.0 CC BY-SA 4.0 Binary Kitchen e.V.
Board v1.0 CC BY-SA 4.0 Timo Schindler

Step 1

- a) Check your parts.
- b) A CR2032 battery is not included. You can get them online or at bigger electronic stores. It's possible you have one long cable instead of two shorter ones. You can cut them in half later.



Step 2

- a) Turn the PCB to the back-side.
- b) Add solder to all four long LED-Pads marked with an +.



Step 3

- a) The long leg of the LED marks the positive side.
- b) Bend the legs, so that the LED lays flat on the board and the legs are also touching the board.
- c) Solder the posive leg (long) to the positive pad where you've added the solder already.
- d) Ensure that the second leg also touches the other pad without solder.



Step 4

- a) Solder the other leg of the LED (cathode, negative side) to the board.
- b) Cut away the excess of the legs.



Step 5

- a) The button has no direction
- b) Add solder to one pad of the button.
- c) Bend the legs of the button so it can touch the surface of the board.
- d) Heat up the pad with the solder again and push the button from the side onto the pad.
- e) Make sure the other leg of the button touches the other pad.



Step 6

- a) Solder the other leg of the button onto the board.



Step 7

- a) The battery holder has a direction marked with a cut edge. You can find the same missing edge also on the board
- b) Add solder to one pad of the battery holder.
- c) Heat up the pad with the solder again and push the batteryholder from the side onto the pad.
- d) Make sure the other leg of the battery holder touches the other pad.
- e) Solder the other leg onto the other pad on the board.



Step 8

- a) Remove the plastic insulation from the wires and straighten them
- b) insert the wires into the holes at the head of the butterfly and bend the wires upwards
- c) solder the two wires in place
- d) optional: cut a short piece of wire beforehand to form a small ring. Put the ring through the holes at the wing tips and solder the rings. Here you can hang necklace links.



Step 9

- a) If you wish, you can add hot glue to the yellow part of the board on the back-side. This helps distribute the light of the LED better.



Step 10

- a) Insert the battery as shown of the picture.
- b) The receivers of the positive side need to touch the top of the battery. Slide it from the left in and push only the left side down.



Step 11

- a) You are finished!
- b) Alternatively, you can thread a necklace through the loops and wear it as a brooch.

