

How to make a powerful flashlight with just \$2

Introduction: why do we need a flashlight? Well we need it everywhere, including dark streets, walking in the nights, searching for a lost ring or coin, looking through a dark window, searching for a big cockroach who has intimidated your children or even committing burglary! It was a joke... I thought buying a powerful flashlight is expensive and if it is Chinese made it would be prone to failure, so why not making a cheap and funny one, so I have started to do it and it is incredibly easy as follows:

Materials:

- 1- An empty box of cream
- 2- A cylinder container of Vitamin C
- 3- A COB 5 W LED white color
- 4- A small switch
- 5- Two 9 V batteries
- 6- 2 pcs 9v Volt Clip on Type Battery Snap Connector Lead Wire Plastic Head
- 7- Two screws
- 8- A circle made of metal sheet with 0.6 mm thickness, the diameter of that should be equal to the internal diameter of cream container.
- 9- 10 cm of electrical duct
- 10- Good Glue
- 11- 10 cm wire

Tools:

- 1- Soldering Iron
- 2- A drill
- 3- A cutter

Instruction:

- 1- Make a hole equal to the external diameter of Vitamin C container on the cream box and then insert the cylinder inside the hole and glue it.

- 2- Split the duct in two halves and glue it to the back of cream box.
- 3- Make the connection for a circuit in which two 9 V batteries are in series connection to make 18 V potential difference to activate the COB 5W LED
- 4- Make for holes on the metal circle two to hold the LED with two screws and two to insert the connecting wires.
- 5- Make a small rectangle on the Vitamin C container to install the switch, but the switch should already soldered to wires.
- 6- Put the batteries inside battery holders and screw the LED to the metal circle base circle and solder the wires to it
- 7- Close the cream box door and switch on the light and enjoy your powerful torch light.

Guiding Figures:





