

Red Dot

COMPONENTS

1. Lipo Battery Rechargeable Lithium Polymer ion Battery Pack
 - a. I like to buy the gas station disposable vapes, and steal the battery out of it
2. Switch, 3 prong
3. 10k ohm potentiometer
4. s8050 transistor
5. 10k ohm resistor
6. Led dot of your chosen color
7. Battery Charging Board with Battery Protection BMS 5V Micro USB 1A 18650 Charge Module
8. Connection wires
9. polarized lens (I use cheap sunglasses)

3D PRINTING STUFF

1. Elagoo PLA+
2. Top half –
3. Rail Connection base left side clamp –
4. right side clamp -

HARDWARE

1. 4 m2 screws
2. 2 bolts and nuts m4

SOFTWARE

1. Slicer software

STEP ONE: PRINT IT

Bring the STL files into your preferred slicer program, I Used Anycubic Slicer as I have a Anycubic Kobra 3 printer.

My Print Setting:

60 to 100% infill – this is up to you, more infill = more durability.

Normal PLA+ settings for your printer

I use organic supports from build plate only

Red Dot

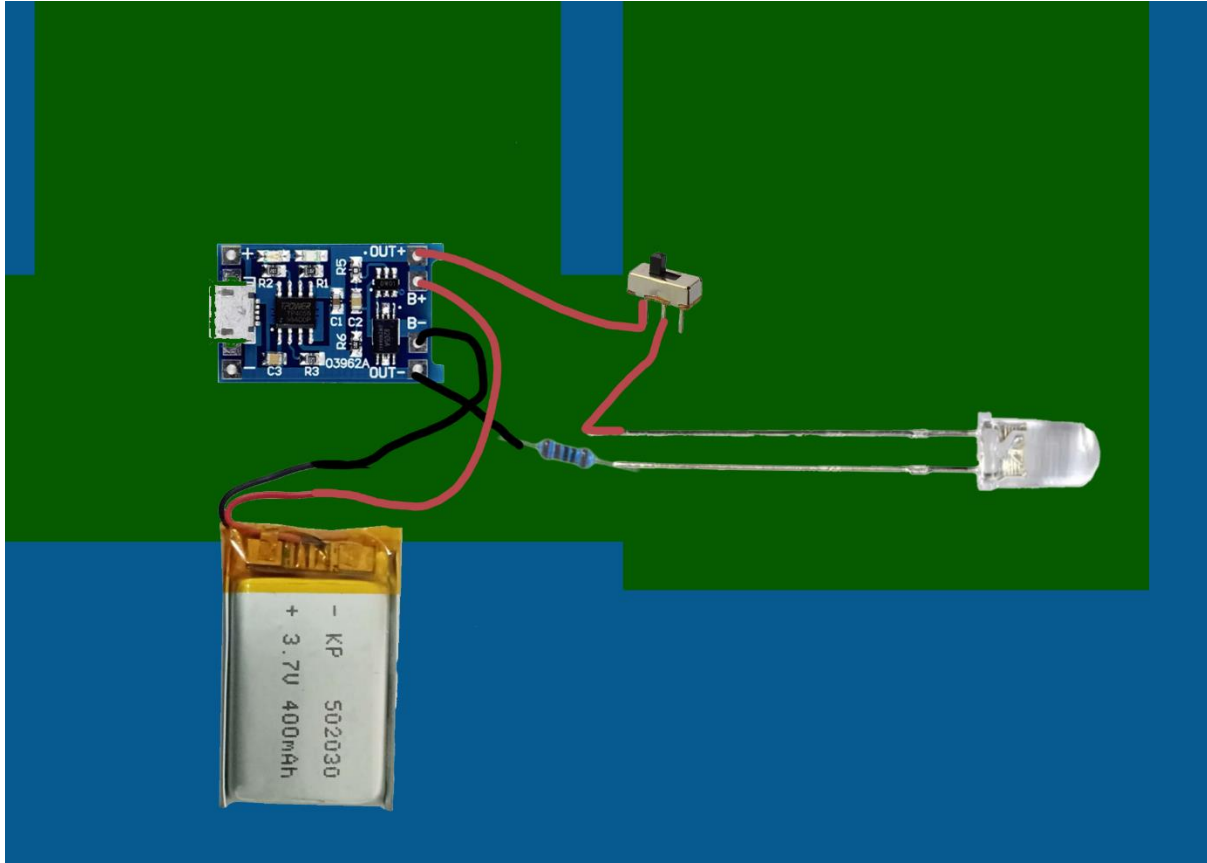
Print orientation

-leave it as it is in the STL it should be in the proper rotation see images for reference.

STEP TWO: ASSEMBLY

I like to place my components in the frame without securing them.

From here I measure my wires to cut for proper lengths and so as not to have too much wire inside. Follow this Diagram



Rechargeable battery :

Solder the batter + to recharge board bat+

Solder battery – to recharge board bat

Solder + out of recharge board to left prong of switch

From the middle prong of the switch Solder to the positive leg of the led

Solder other – prong of the led to the 10k resistor

Solder the other side of the resistor to the – out on the recharge board

Put it all into place and you have a single brightness red dot sight!

Red Dot

Want to make it have adjustable brightness? Follow this next section.

With the flat side of the s8050 transistor facing you, place the left prong in the left hole of the potentiometer

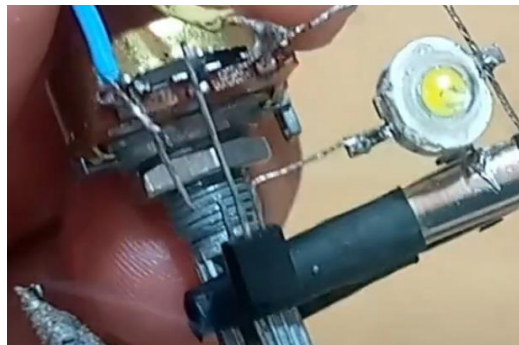
Put the middle prong in the middle hole, leave the 3rd prong on the transistor out and bend it to the side for easy access in a moment.



Connect the positive side of your led to the leg you stuck out on the transistor.

Wire the free leg of the led to the 3rd hole on the potentiometer

Connect 2 wires, one to the left holes, and one to the right holes onto the potentiometer



Now, line this potentiometer know up with the hole in the bottom of the top part of the sight

+ wire is the one on same hole as the led

Connect it to the outside pin of the 3 prong switch

Connect a wire from the middle prong of the switch to the + out on the recharge board

Connect the other wire to the recharge board –

You can check by just touching the terminals to make sure you have the wires right.

Lets add the lens to it.

This will take some fine touches and tuning to get it in just the right place. But once its there, secure it

A version with Windage and elevation adjustments coming soon!