



# Update your Torch

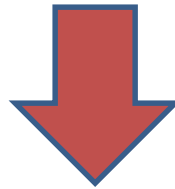
4º E.S.O. Colegio San José



# We start from:



Normal Torch



Whose elements inside are the following



Light



x 2

Battery



Iron connections



# And we want to change



**LIGHT**

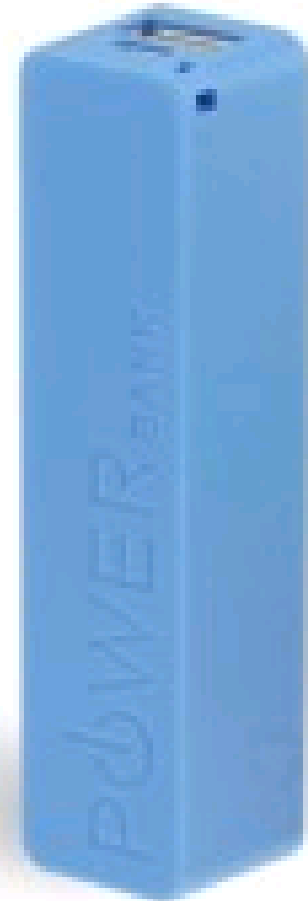
To



**LEDS**

# STEP 1 Know your new ítem

- Leds work between 3-4 volts
- Our bateries are not enough, so **we should have to change them:**
- It gives us 5 volts.

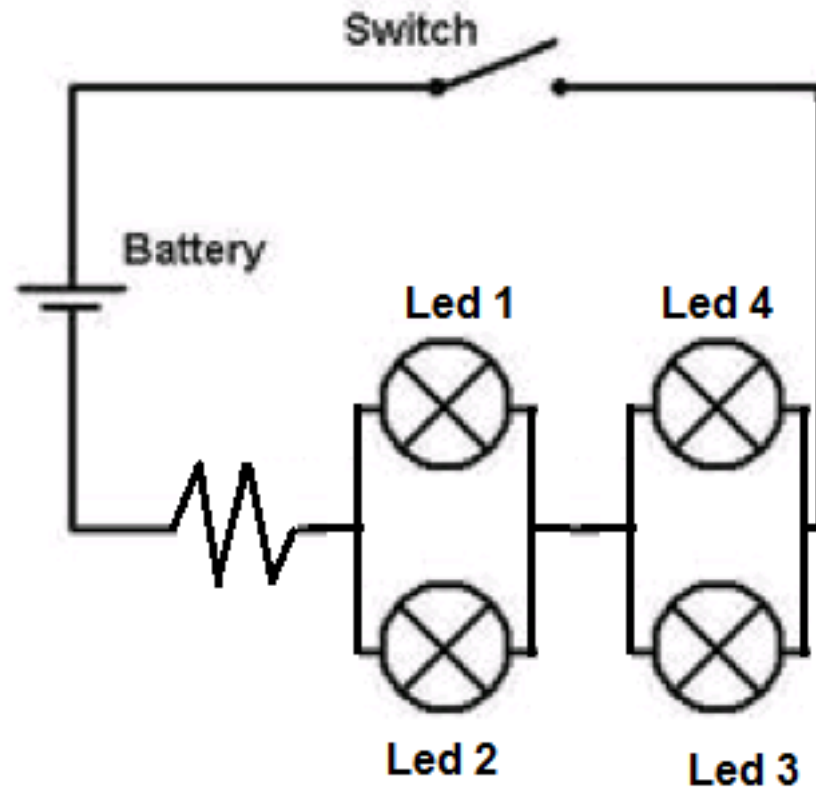
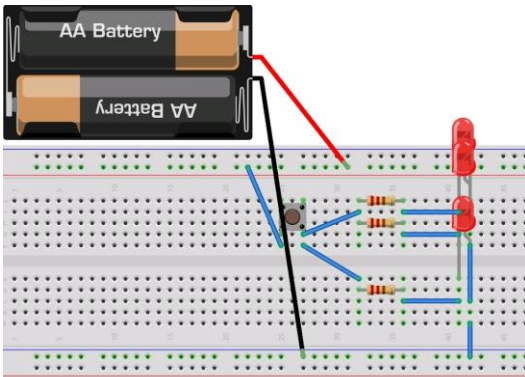


External mobile battery

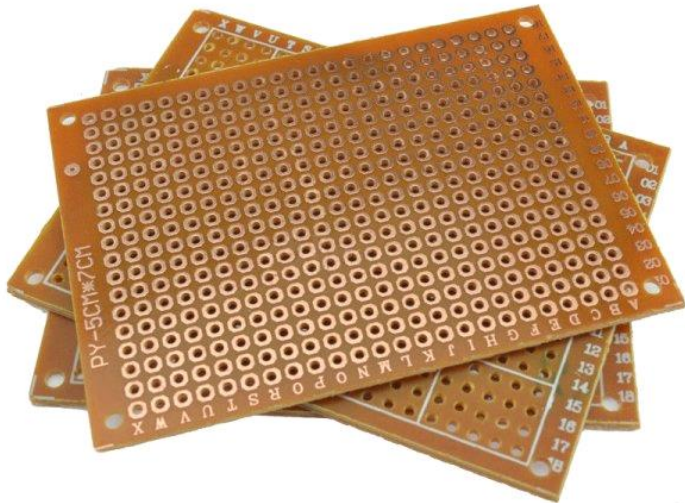
# STEP 2 -Test our circuit in a protoboard



# Our circuit



# Step 3 – Put it in a permanent board



PCB board



Cables



Welder



Silicone Pistol

# Step 4: Put it all in our Torch

- We have to connect everything in our Torch.





# And we will get our new Torch

- It doesn't illuminate so much because our leds are not very good.... But it was fun to learn how to build it!!!!

