


Step 3: Solder the capacitors


C1

100u



C2

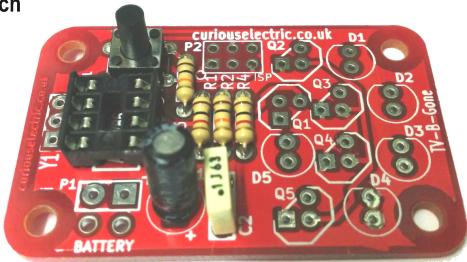
0.1u



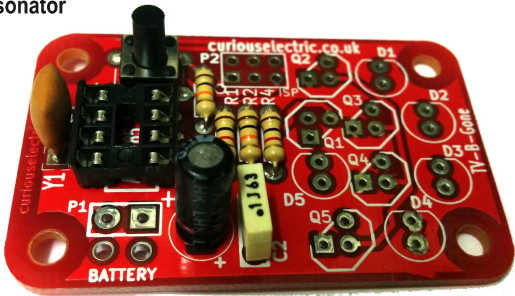
**Note:**  
Polarity on C1: White stripe is GND. Long lead is +ve  
C2 is marked “.1J63”



Step 4: Solder the push switch



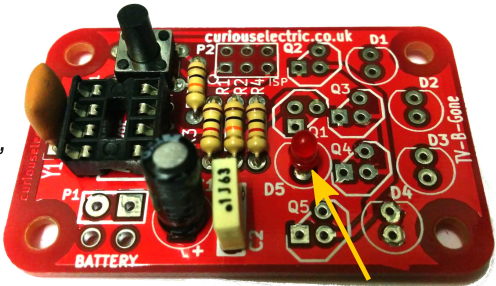
Step 5: Solder the 8MHz resonator



*Note: The resonator can be inserted in either direction.*

Step 6: Solder the red LED

*Note polarity:  
flat side negative,  
long leg +ve*

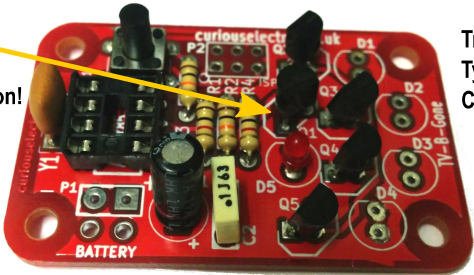


Step 7: Solder the transistors

3mm Red LED

Transistor Q1  
Type: BC640  
Check orientation!

Transistors Q2-5  
Type: BC548  
Check orientation!



Transistor orientation:

Flat side of transistor here

Round side of transistor here

Step 8: Solder the infra-red LEDs



Use pliers to bend LED  
leads 90 deg.



*Note polarity: flat side negative, long leg +ve*