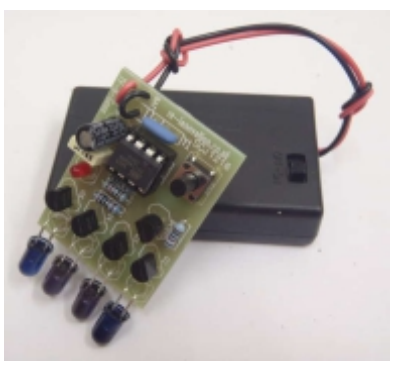


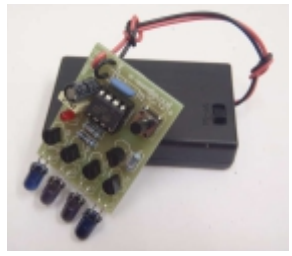
Step 9: Insert programmed IC into socket

*Ensure IC orientation correct
- double check the notch.*



TV-B-Gone KIT

Instructions



The TV-B-Gone switches off TVs from a distance of up to 30m. It sends out the 'standby' command for the top 125 European and 125 US TV specifications. It is based upon an idea and product from Mitch Altman and a kit by Adafruit Industries.

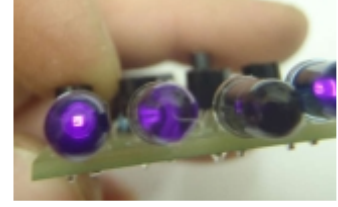
In use: Switch on the battery pack and point at an unwanted TV. Press the black button and the red light should flash, showing it is sending out the various TV codes. The most popular codes are sent first, but it takes over 60seconds to run through all the codes.

Step 10: Add 3 x AAA batteries and test.

Insert 3 AAA batteries into the battery box. Use the switch on the battery box to turn on the device. You should see the 3mm red LED flash. This means the unit is working. It will flash for around 60 seconds and then switch off. Press the black push-button switch to start the sequence again. The device sends out all the TV codes in sequence. Pressing the black button will cause it to start the sequence again.



Use a camera to check IR LEDs working



*Note: This is viewed through a camera
You would not normally see the LEDs flash.*

Use a digital camera to check the IR LEDs are working. A phone camera works well for this. You should see the LEDs flashing purple, which proves the device is sending IR codes.

Note: Most popular TV codes are used first but it may take over 60 seconds to scroll through all the codes.

Step 11: Finished! Go and switch off some annoying TVs....

This kit is based upon a circuit originally produced by Mitch Altman:
http://www.tvbgone.com/cfe_tvbg_main.php
 The circuit is based upon the kit by Adafruit Industries:
<http://www.ladyada.net/make/tvbgone/index.html>
 Kit developed by Matt Little: www.re-innovation.co.uk
 for Nottingham Hackspace: www.nottinghack.org.uk



Tools required

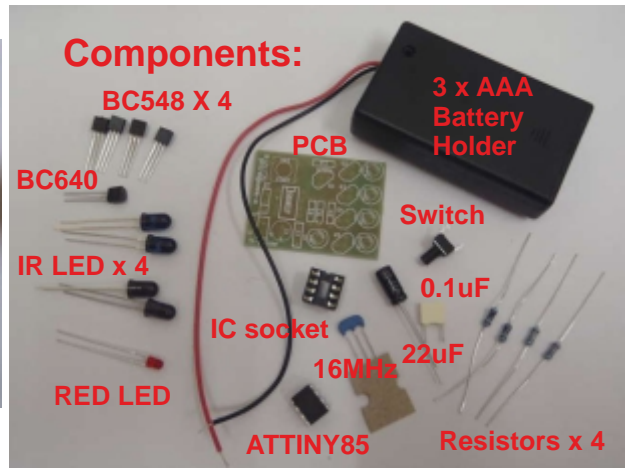
Soldering Iron

Cutters

Solder

Pliers

*You will also need:
3 x AAA batteries*

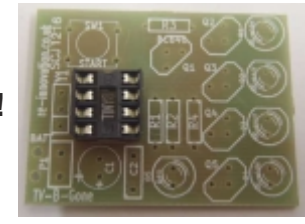


Components:

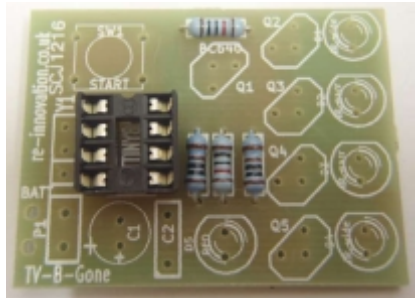
- BC548 X 4
- BC640
- IR LED x 4
- RED LED
- ATTINY85
- 16MHz
- 22uF
- 0.1uF
- Resistors x 4
- 3 x AAA Battery Holder
- Switch
- PCB
- IC socket

Step 1: Solder the IC socket

Check notch!



Step 2: Solder the resistors



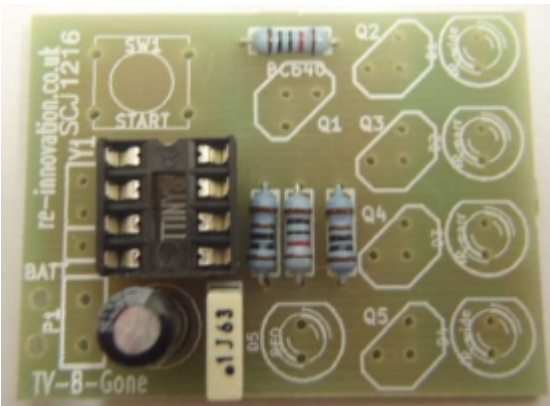
- | | | | |
|----|-----|--|----------------|
| R1 | 1k | | Br Bk Bk Br Br |
| R2 | 10k | | Br Bk Bk Rd Br |
| R3 | 10k | | Br Bk Bk Rd Br |
| R4 | 1k | | Br Bk Bk Br Br |

Step 3: Solder the capacitors

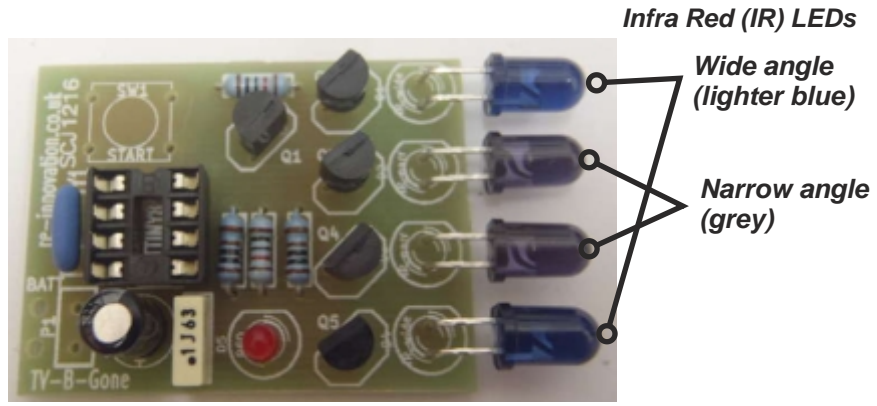
C1 22u 

C2 0.1u 

Note: polarity on C1. C2 is marked ".1J63"



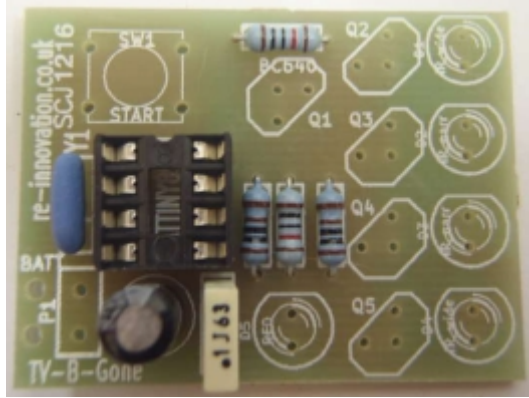
Step 6: Solder the LEDs



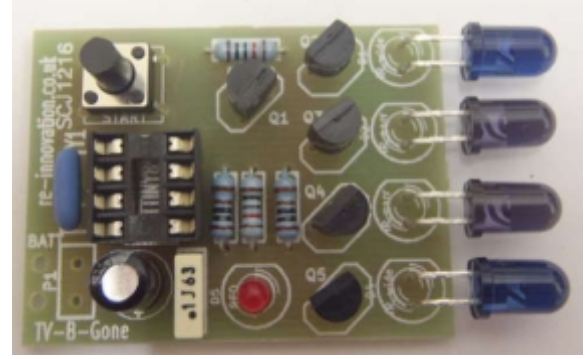
Note polarity: flat side negative, long leg positive

Step 4: Solder the 16MHz resonator

Note: The resonator can be inserted in either direction.



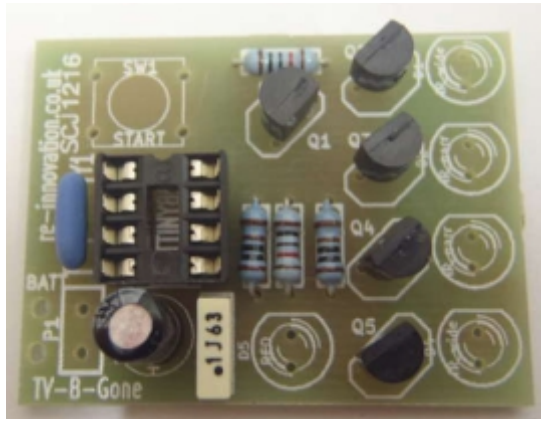
Step 7: Solder the switch



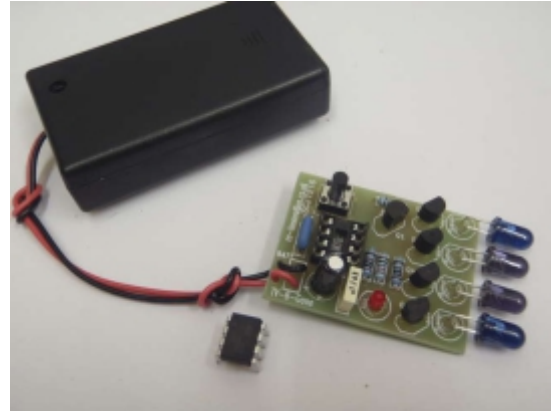
Step 5: Solder the transistors

*Transistor Q1
Type: BC640
Note orientation.*

*Transistors Q2-5
Type: BC548
Note orientation.*



Step 8: Solder the battery pack



Wires go through PCB

Solder battery pack to PCB. Note the polarity - red wire is +ve, black wire -ve.