

Stop and Go 555 Test Build Instructions

Directions:

A text description will be given:

1) Insert 100K Ohm Resistor, from Base (B) of each transistor (Column 4), to Positive (Red) Rail

Then a more concise grid based description will be given:

100K Ohm Resistor A4 to PR

100K Ohm Resistor J4 to NR

Where PR is Positive Rail, and NR is Negative Rail

In the case of polarized components, + and - will be used, referring to legs on the component.

LED A10- to PR+

LED J10+ to NR-

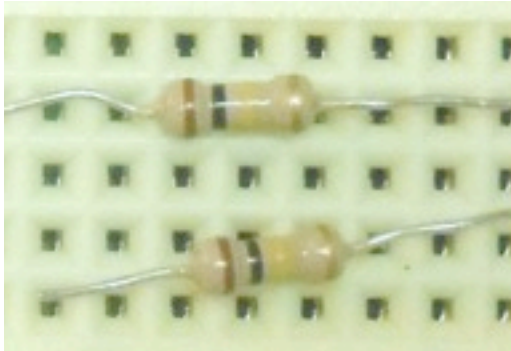
In the first case, LED short leg goes into A10, while long leg goes into Positive Rail.

Note that for clarity, leads have been trimmed to reduce complexity.

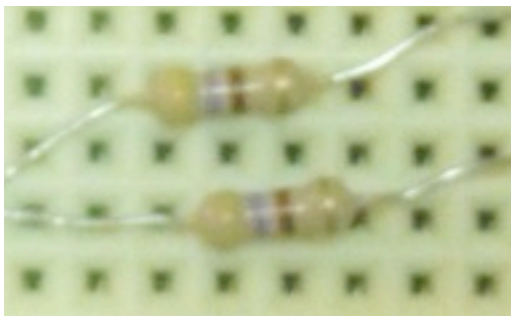
It would be a good idea not to trim leads as they may be required in a final design.

Parts List:

100k ohm Resistor x 2, Brown Black Yellow



470 ohm Resistor x 2 Yellow Violet Brown



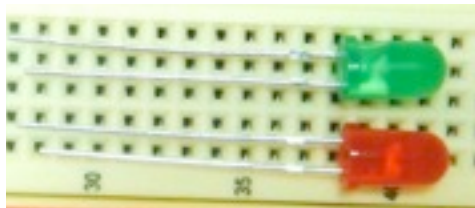
10uf Capacitor

Polarized Long Lead is Positive



LEDs, Red and Green

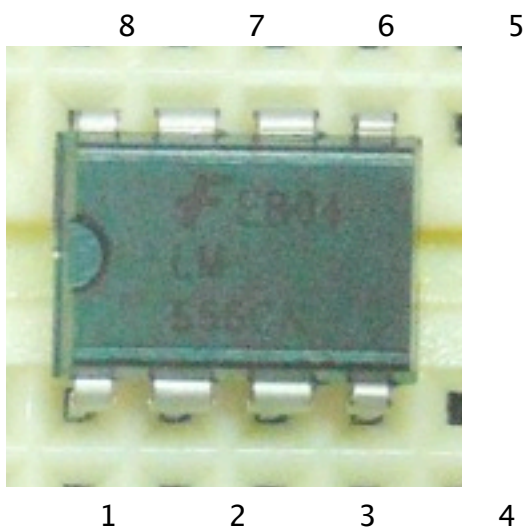
Polarized: Long Lead is Positive



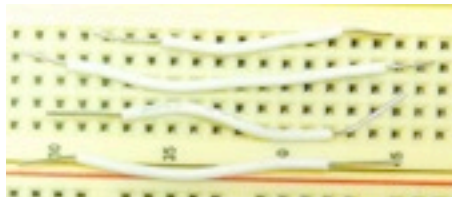
55 Timer IC

Pin 1 is to the left of the notch.

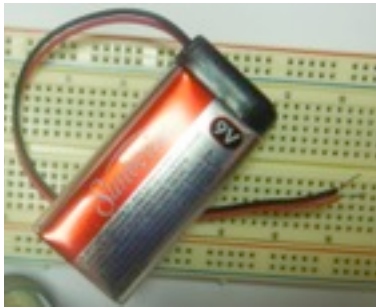
Pin Out:



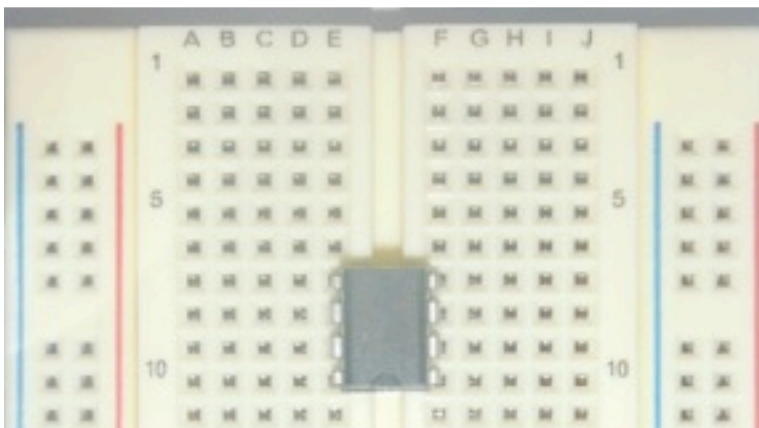
Jumper Wire x4, approx. 40mm



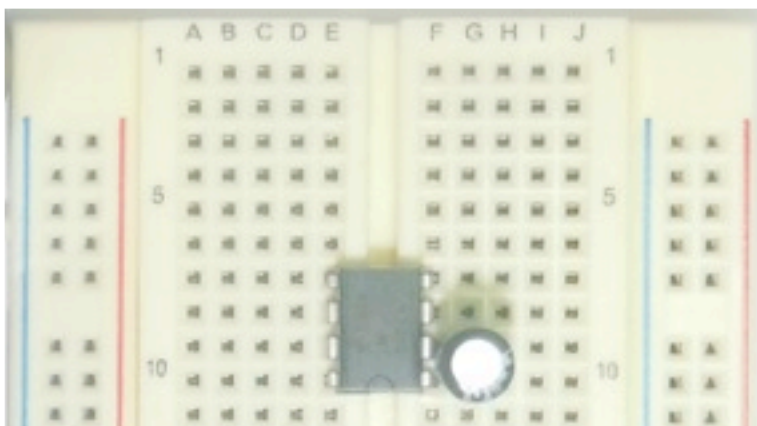
9V Battery and Clip



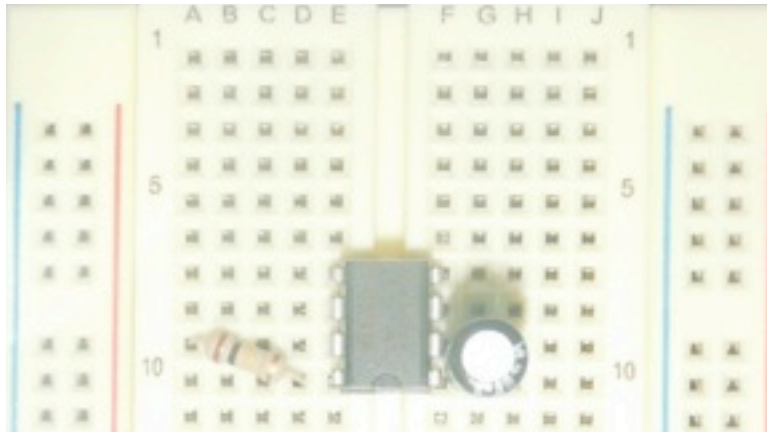
- 1) Start with lowest number on breadboard columns to top left.
Insert 555 IC with pin 1 at F10, pin 5 at E7.



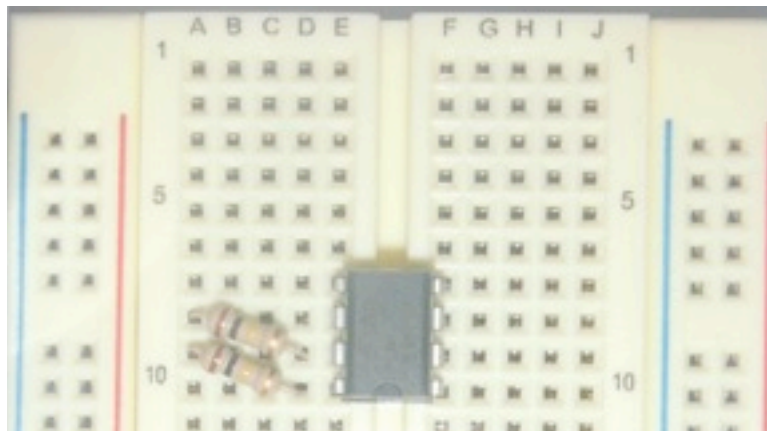
- 2.) Insert 10uf Capacitor, Long Lead at Pin 2, Short Lead at Pin 1.
10uf Capacitor G10- to G9+.



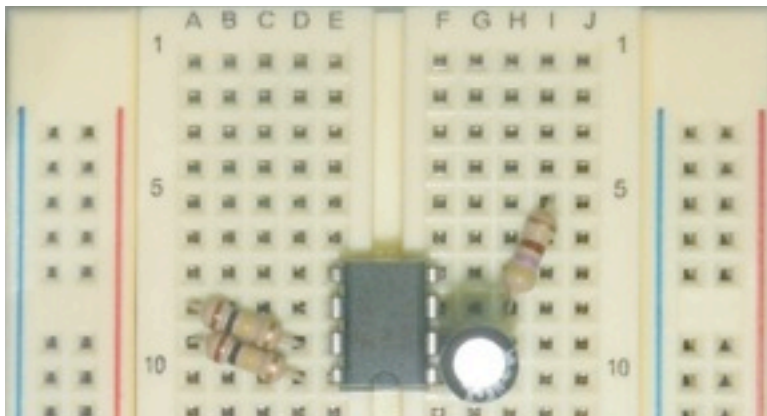
3.) Insert 100k Ohm Resistor (Brown, Black, Yellow) from Pin 8 to Pin 7.
100k ohm resistor from A9 to D10.



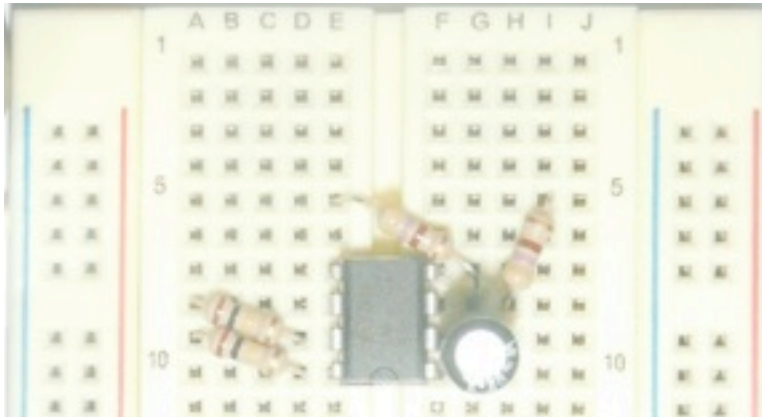
4) Insert 100k Ohm Resistor (Brown, Black, Yellow) from Pin 7 to Pin 6.
100k ohm resistor from A8 to D9.



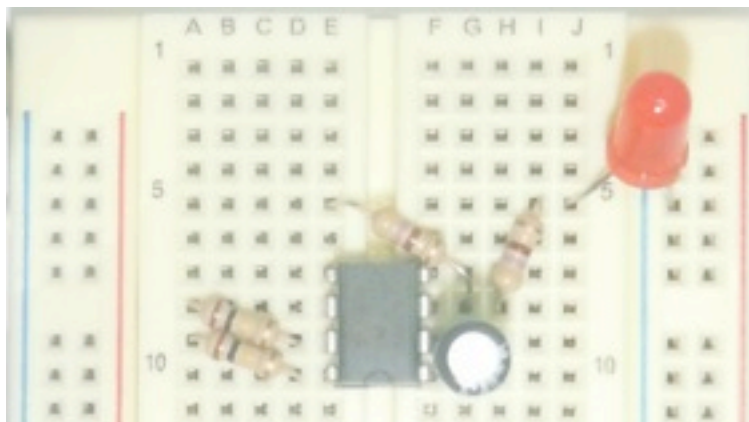
5) Insert 470 Ohm Resistor from Pin 3 to I5.
470 Ohm Resistor G8 to I5.



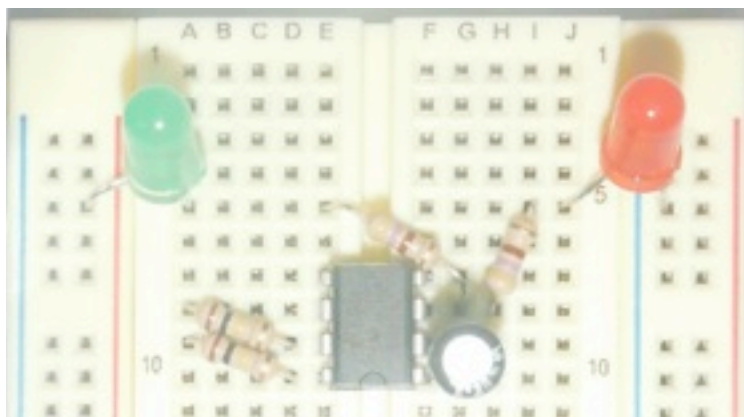
- 6) Insert 470n Ohm Resistor from Pin 3 to E5.
470 ohm Resistor G8 to E8.



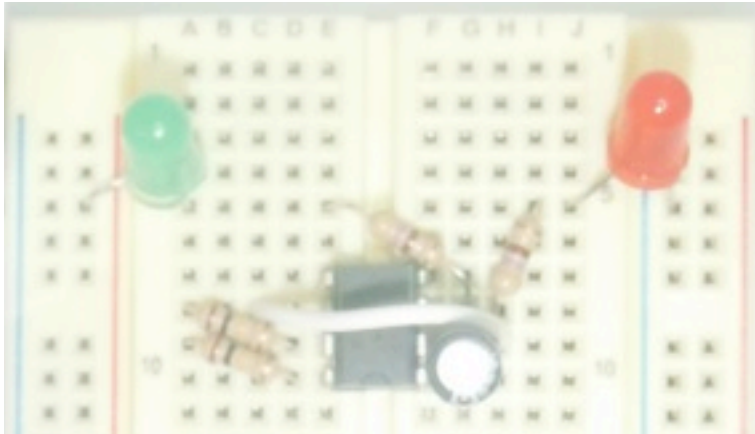
- 7) Insert RED led, Long Lead at J5, Short Lead at Ground Rail.
Red LED J5+ to GR-



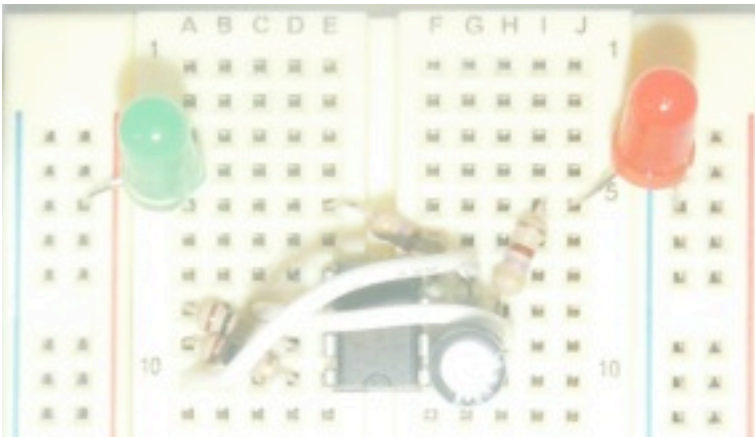
- 8) Insert Green LED, Long Lead at Positive Rail, Short Lead at A5.
Green LED PR+ to A5-.



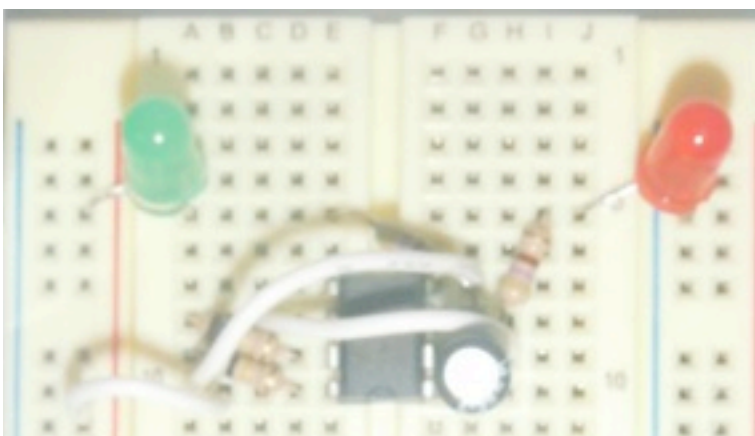
9) Insert Jump from Pin 6 to Pin 2.
Jumper from C8 to H9.



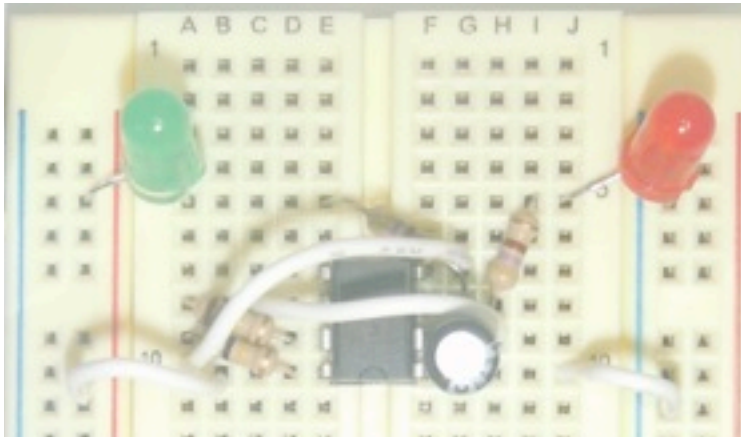
10) Insert Jumper from Pin 8 to Pin 4.
Jumper from A10 to G7.



11) Jumper from Pin 8 to Positive Rail.
Jumper B10 to PR.



12) Jumper Pin 1 to Negative Rail.
Jumper J10 to NR.



13) Attach Battery Clip to Battery.
Positive (Red) to Positive Rail
Negative (Black) to Negative Rail.
LEDs should immediately start to alternate, blinking slowly.

