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LED Chaser

Basic LED chaser circuit with 555 timer

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recap

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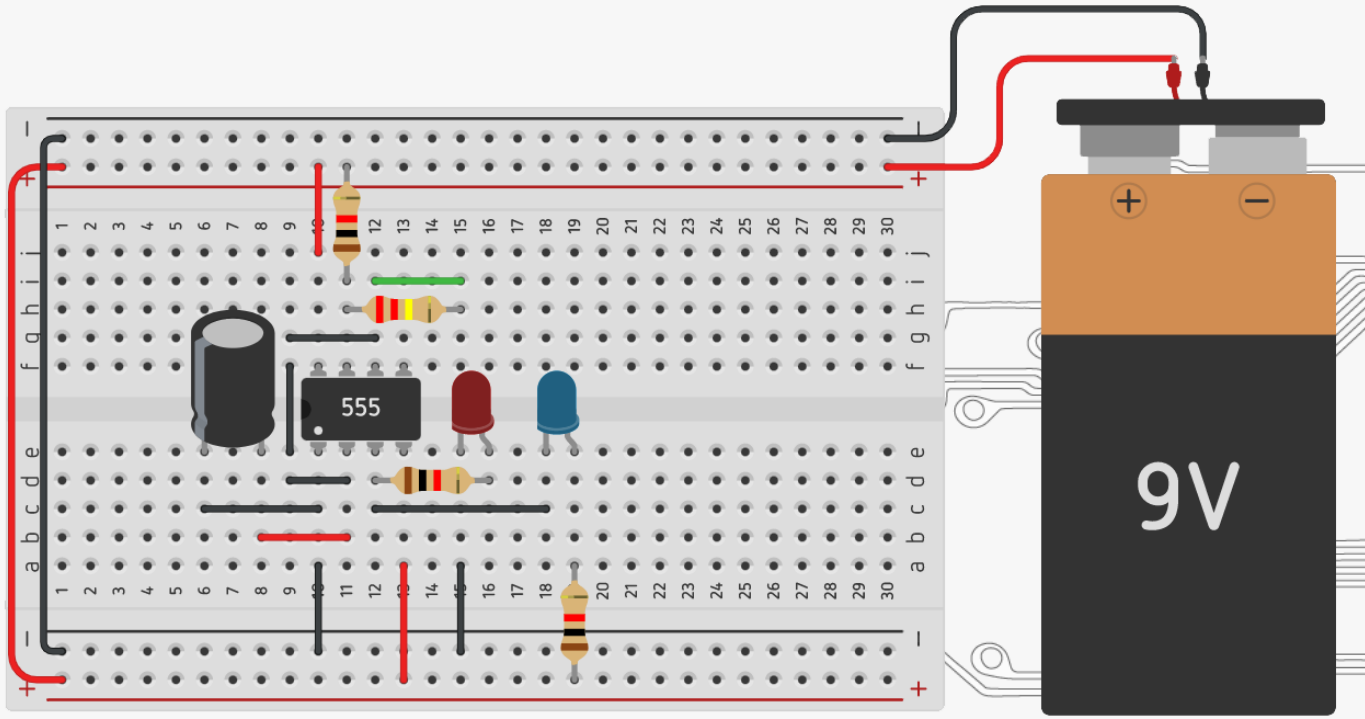
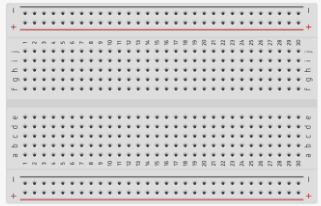
Introduction

LED chaser using 555 timer



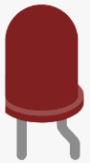
Required Components

- Breadboard
- 555 Timer
- LED
- Resistor
- Snap Connector
- Jumper Wires
- Battery 9v



Breadboard

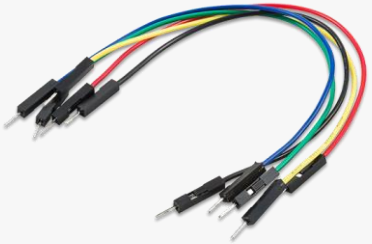
555 Timer



LED

Resistor

Snap Connector



Jumper Wires

Battery 9v

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Procedure

Connection Steps

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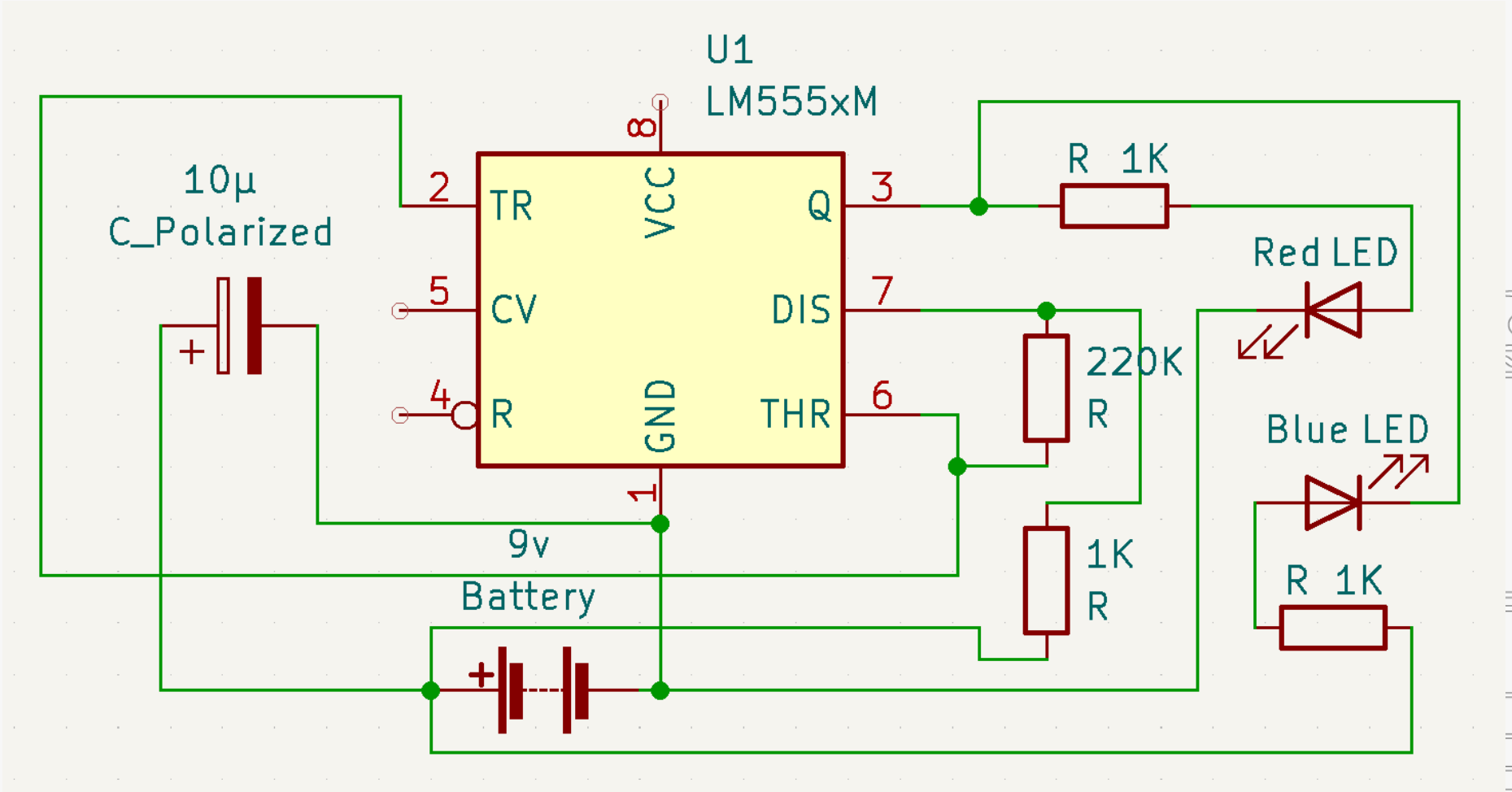
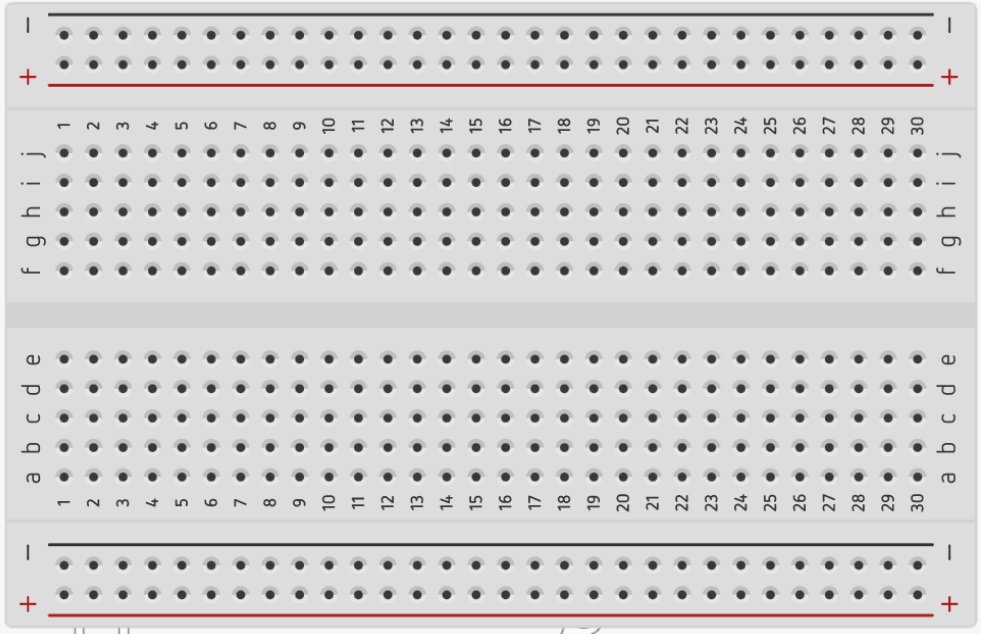
Circuit diagram



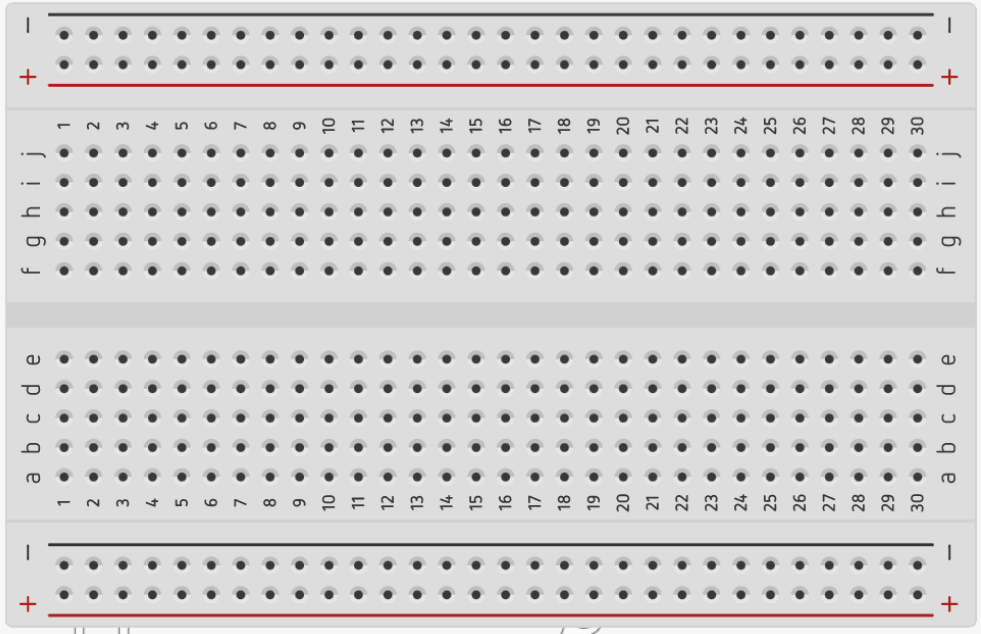
Connection Step 1

- Place breadboard



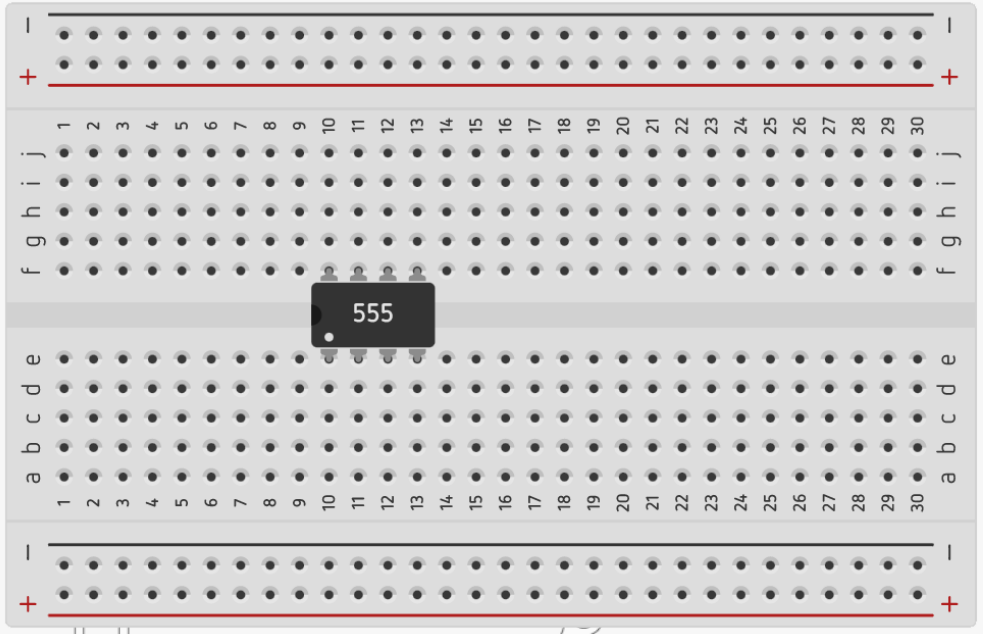
Connection Step 2

- Place battery



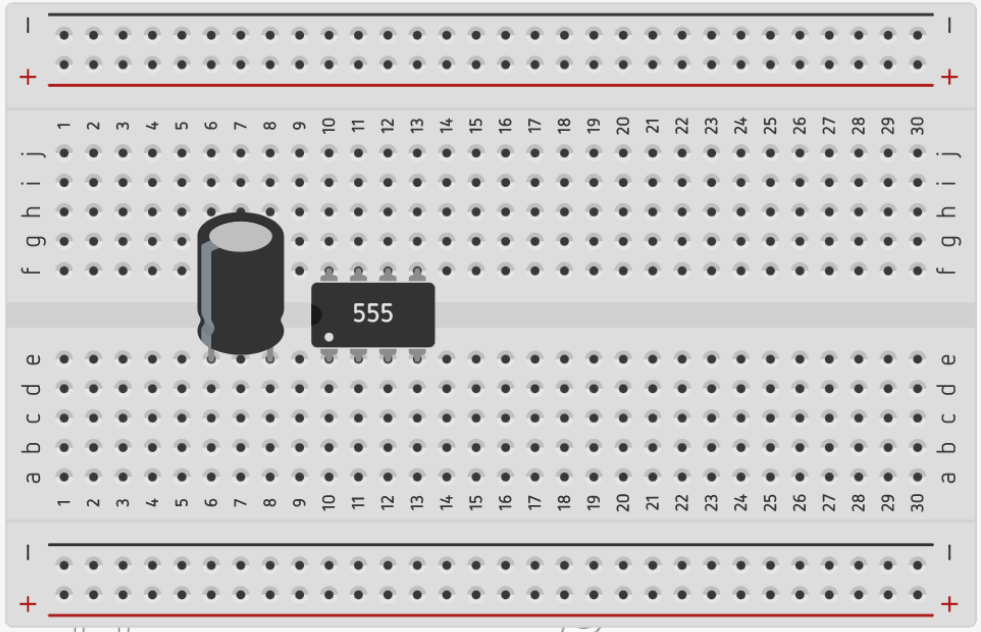
Connection Step 3

- Insert 555 timer in breadboard



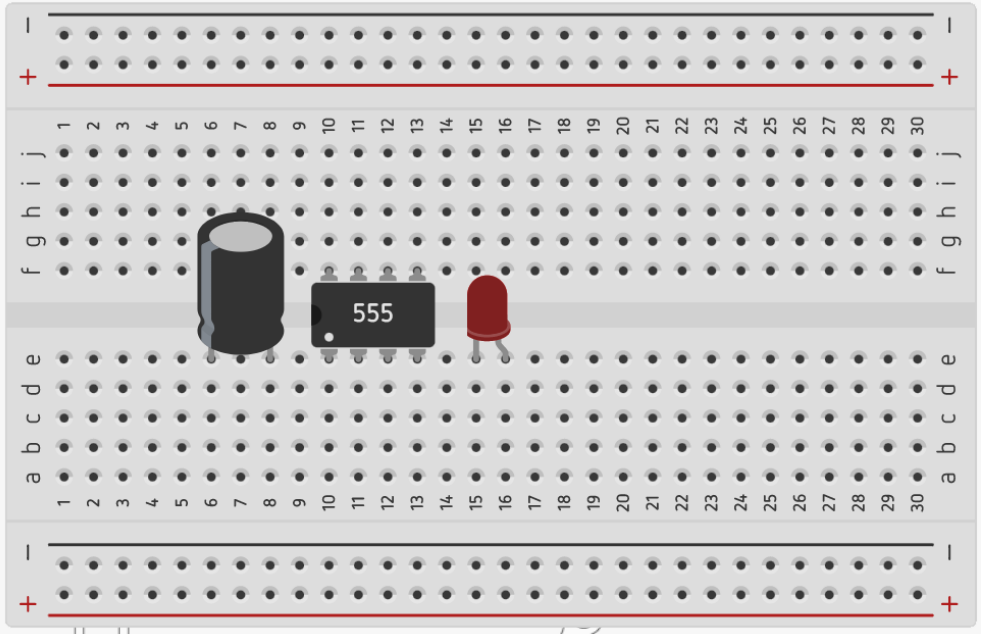
Connection Step 4

- Insert capacitor in breadboard



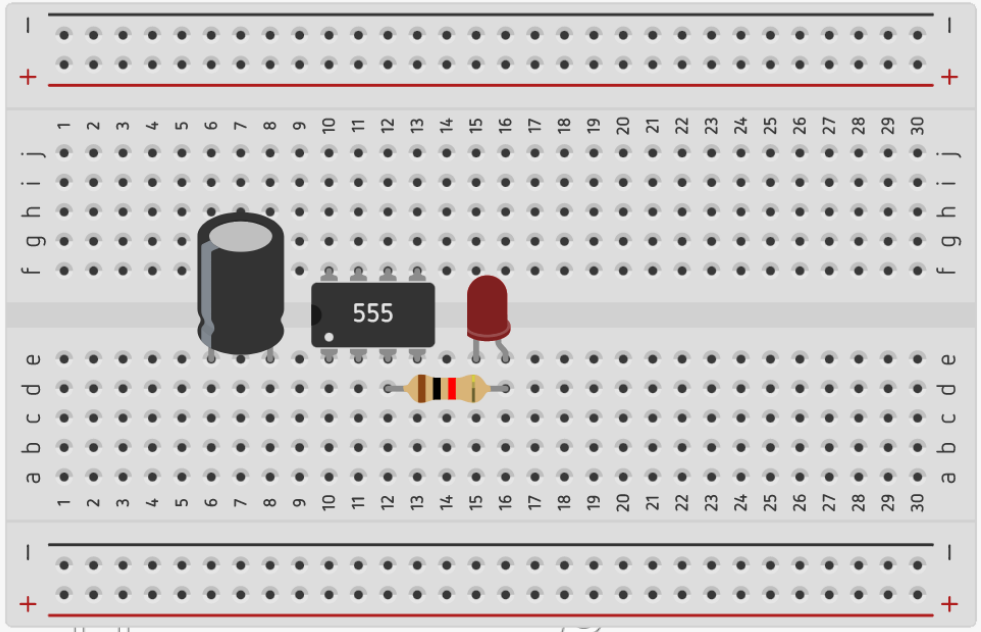
Connection Step 5

- Insert LED in breadboard



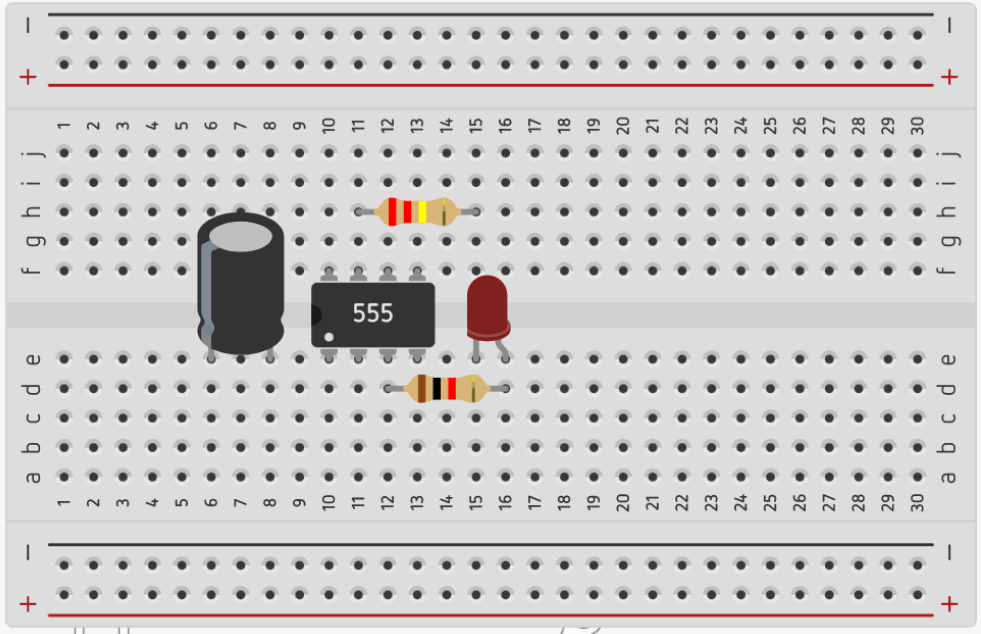
Connection Step 6

- Connect OUT (pin 3) of 555 timer to the anode terminal of LED using a resistor as shown in the diagram.



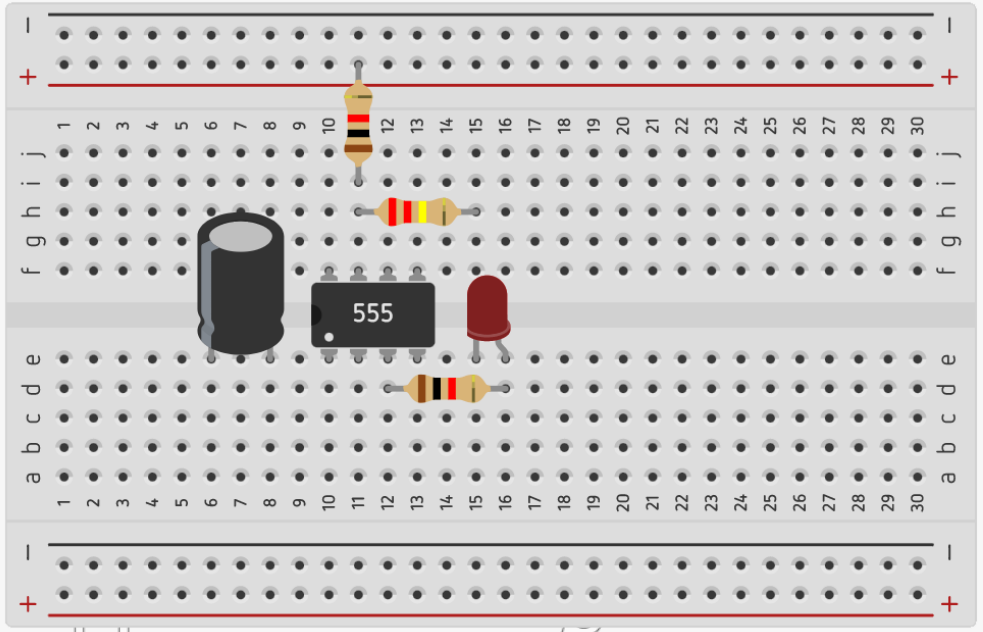
Connection Step 7

- Connect a resistor on DIS(pin 7) of 555 timer IC as shown in the diagram.



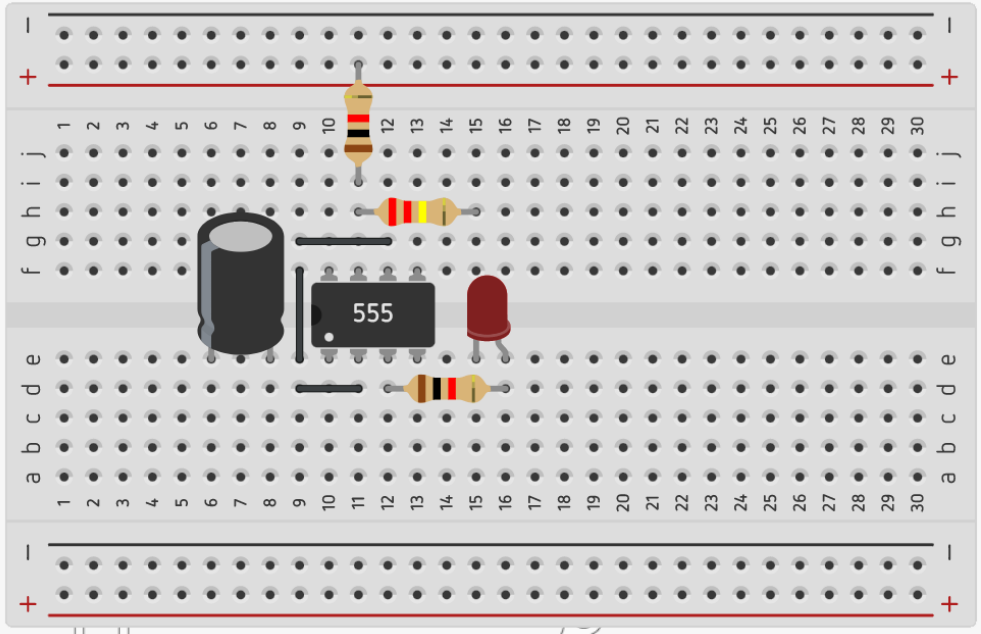
Connection Step 8

- Connect another resistor on DIS(pin 7) of 555 timer IC and other end of the resistor in the (+) power rail of breadboard as shown in the diagram.



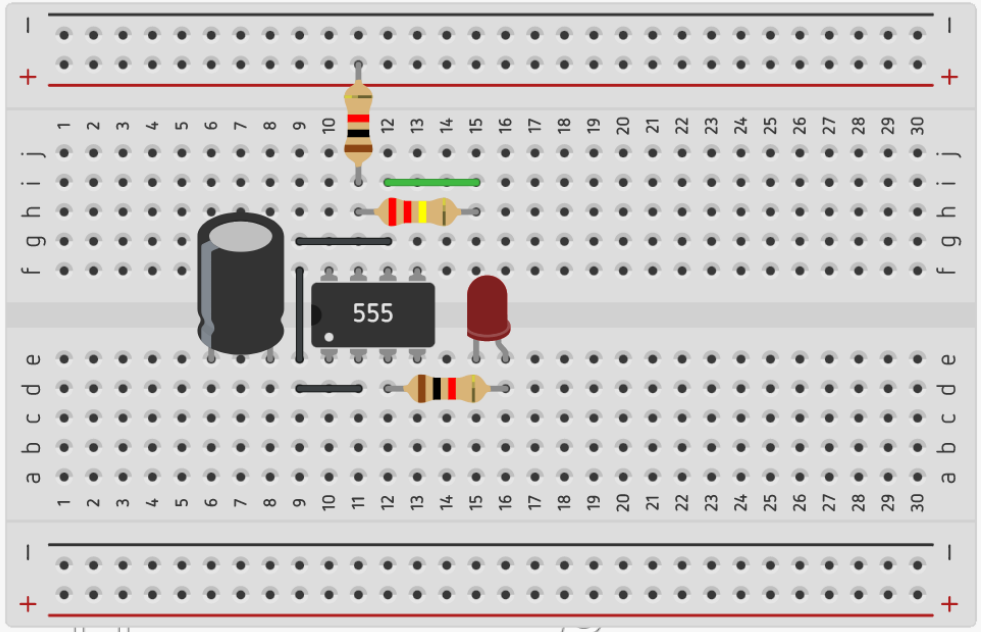
Connection Step 9

- Connect TRIG to THR pin of 555 timer as shown in the diagram.



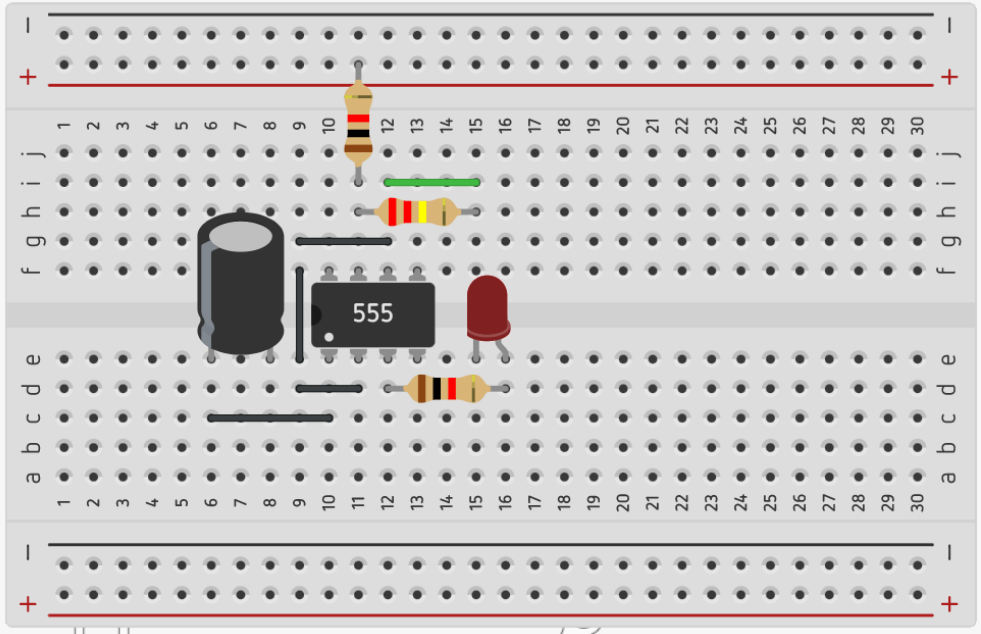
Connection Step 10

- Connect THR pin of 555 timer to the resistor open end as shown in the diagram.



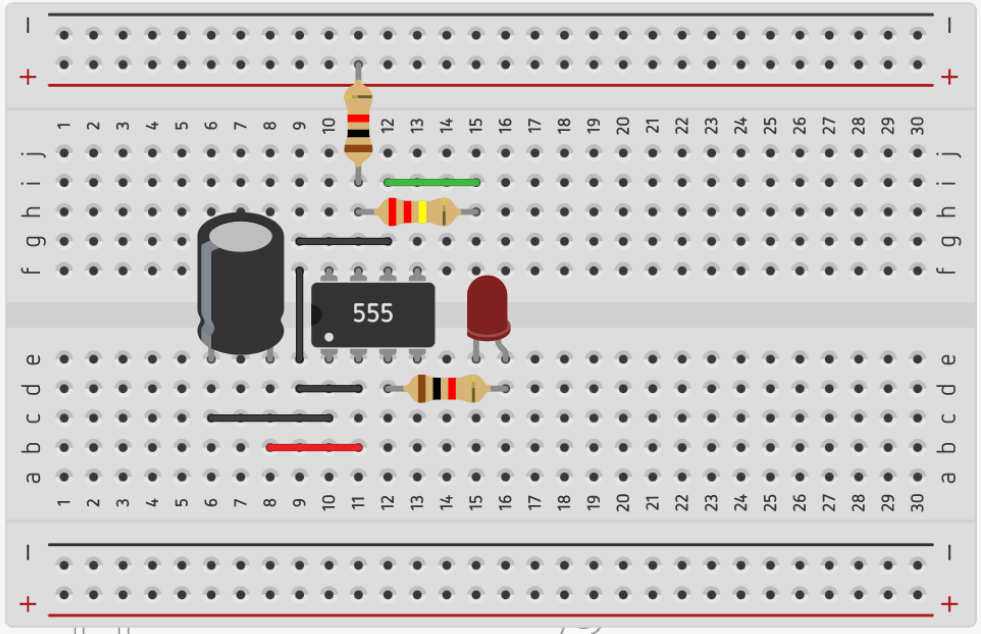
Connection Step 11

- Connect negative(-) terminal of capacitor to the GND pin of 555 timer as shown in the diagram.



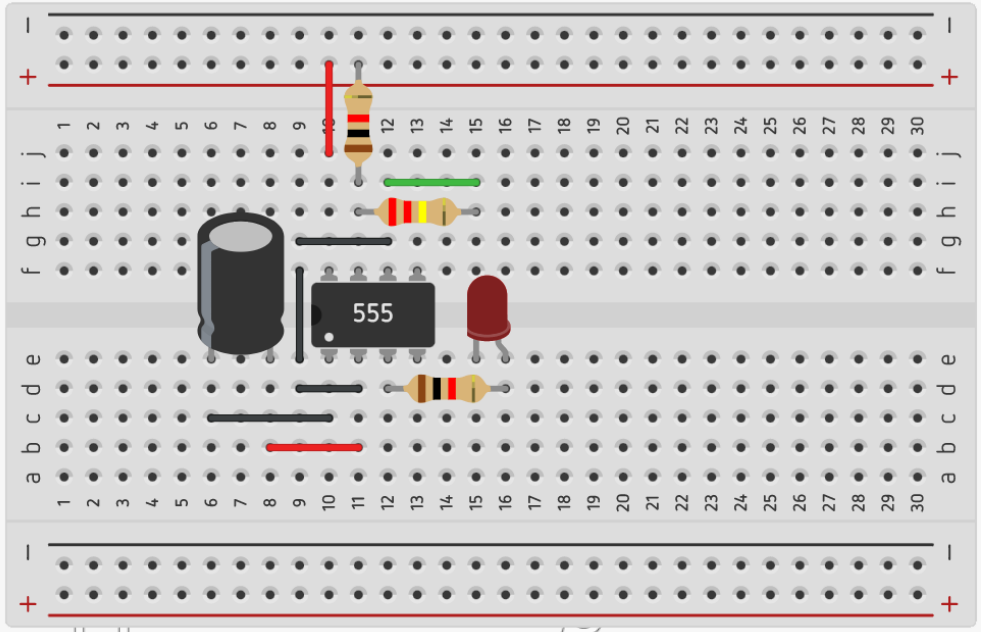
Connection Step 12

- Connect positive(+) terminal of the capacitor to the TRIG pin of the 555 timer as shown in the diagram.



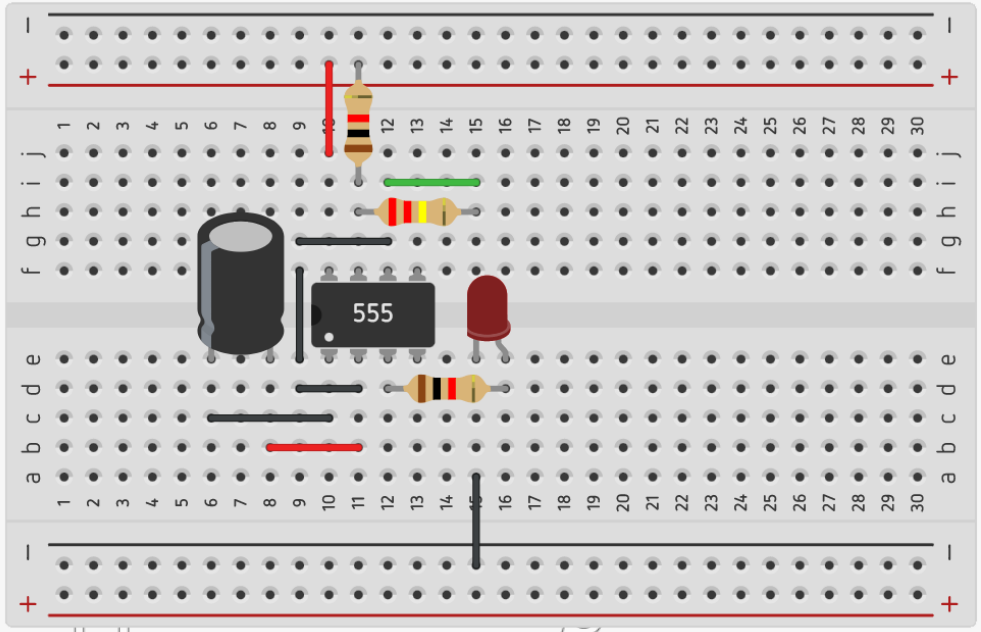
Connection Step 13

- Connect Vcc of 555 timer to the positive(+) power rail of the breadboard as shown in the diagram.



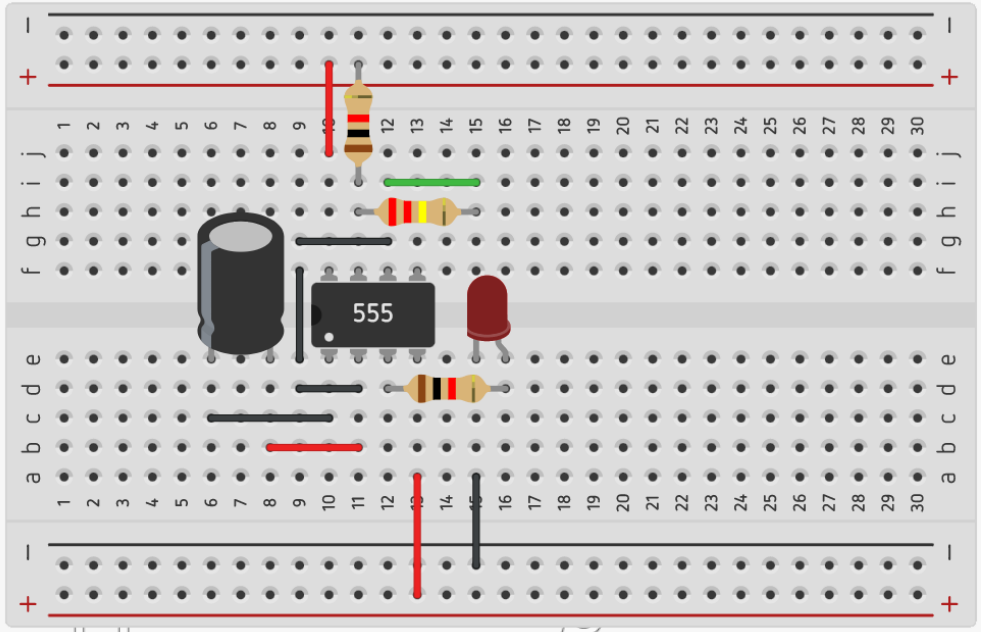
Connection Step 14

- Connect cathode(-) terminal of the LED to the negative(-) terminal of breadboard power rail as shown in the diagram.



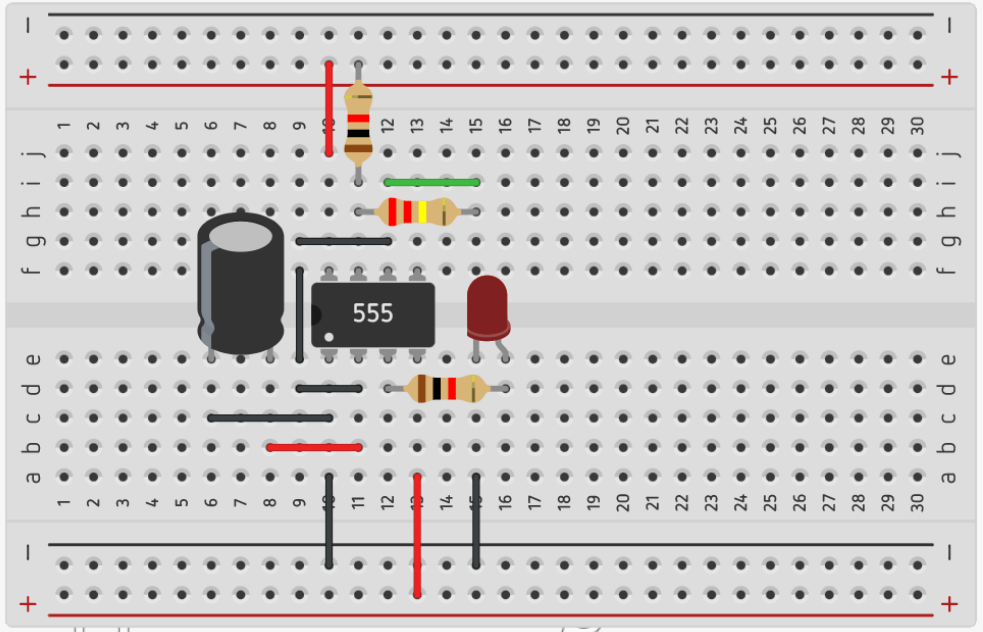
Connection Step 15

- Connect RESET(pin 4) of the 555 timer to the positive(+) power rail of the breadboard as shown in the diagram.



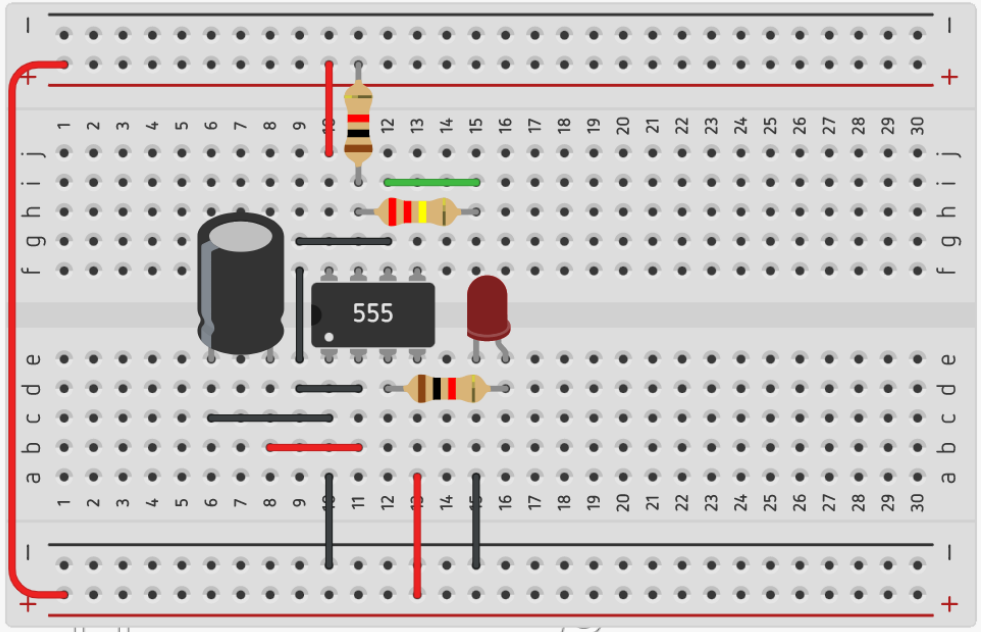
Connection Step 16

- Connect GND(pin 1) of the 555 timer to the negative(-) terminal of the breadboard power rail as shown in the figure.



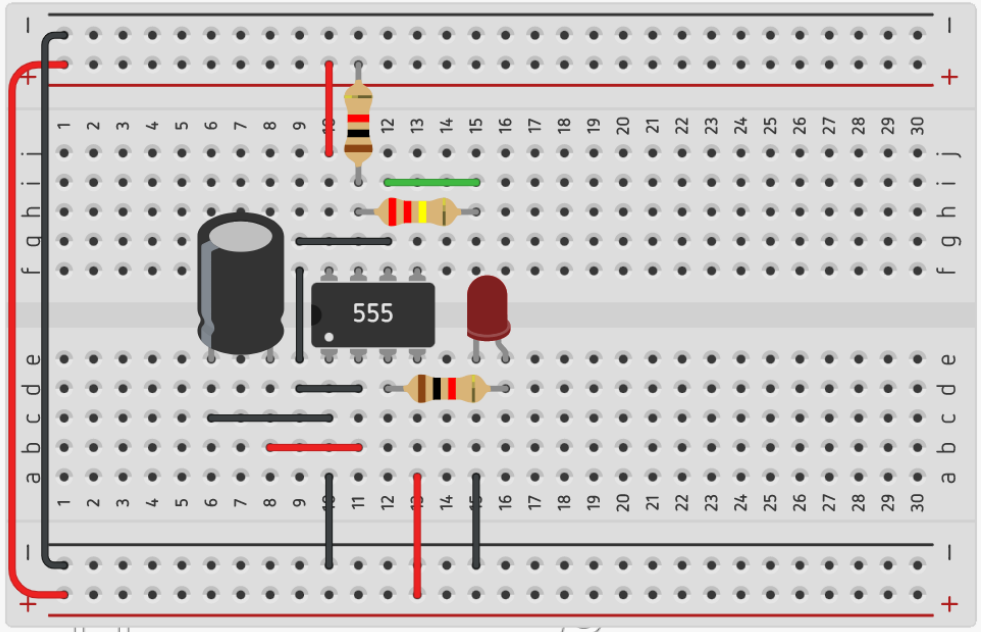
Connection Step 17

- Connect one side of positive(+) power rail to the another side of the power rail as shown in the figure.



Connection Step 18

- Connect one side of negative(-) power rail to the another side of the power rail as shown in the figure.



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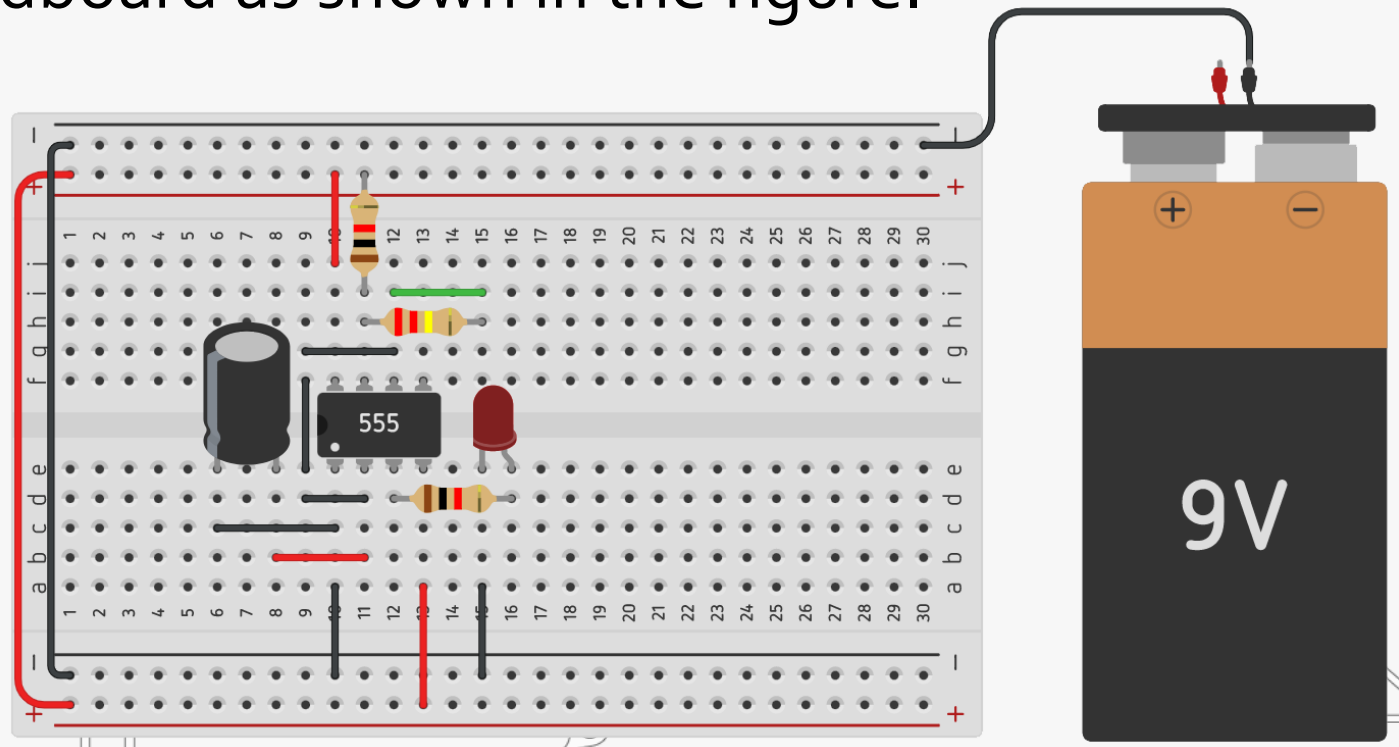
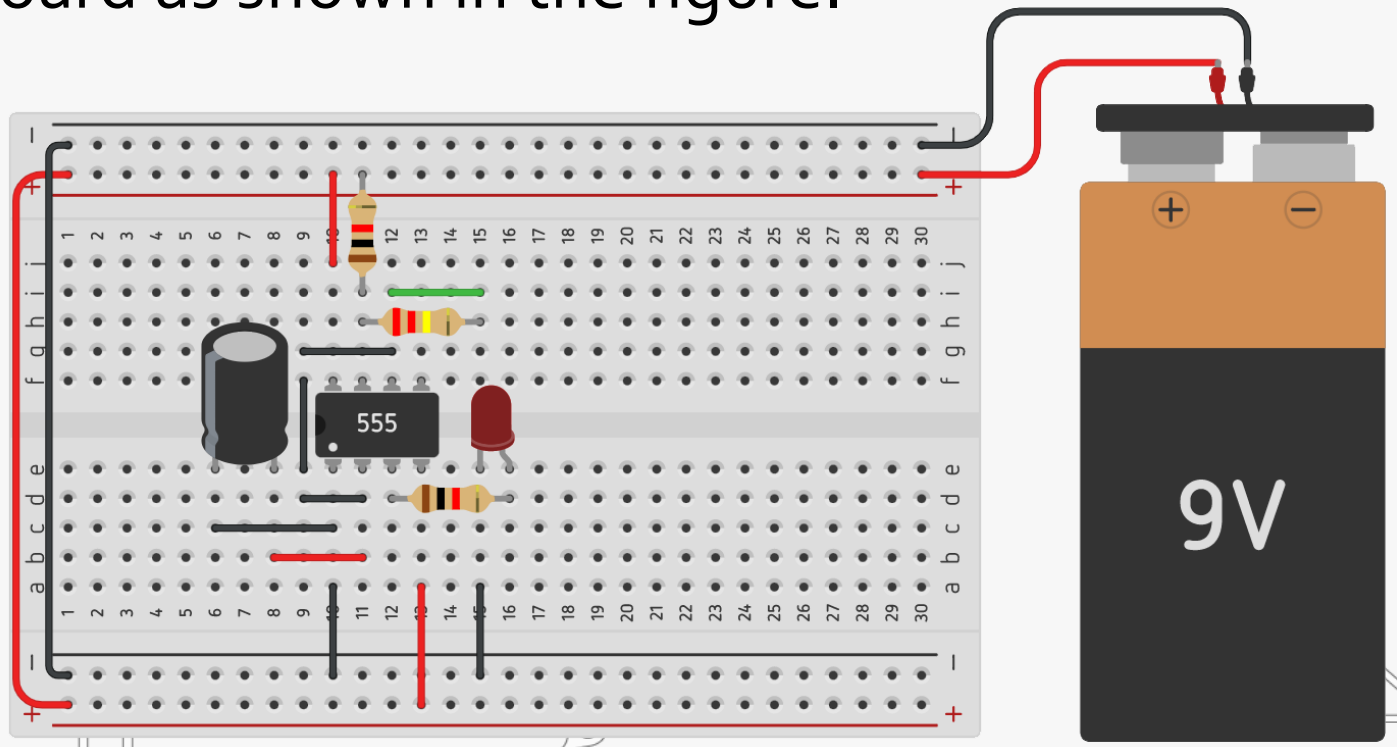
Connection Step 19

- Connect cathode(-) terminal of battery to the negative(-) power rail of the breadboard as shown in the figure.



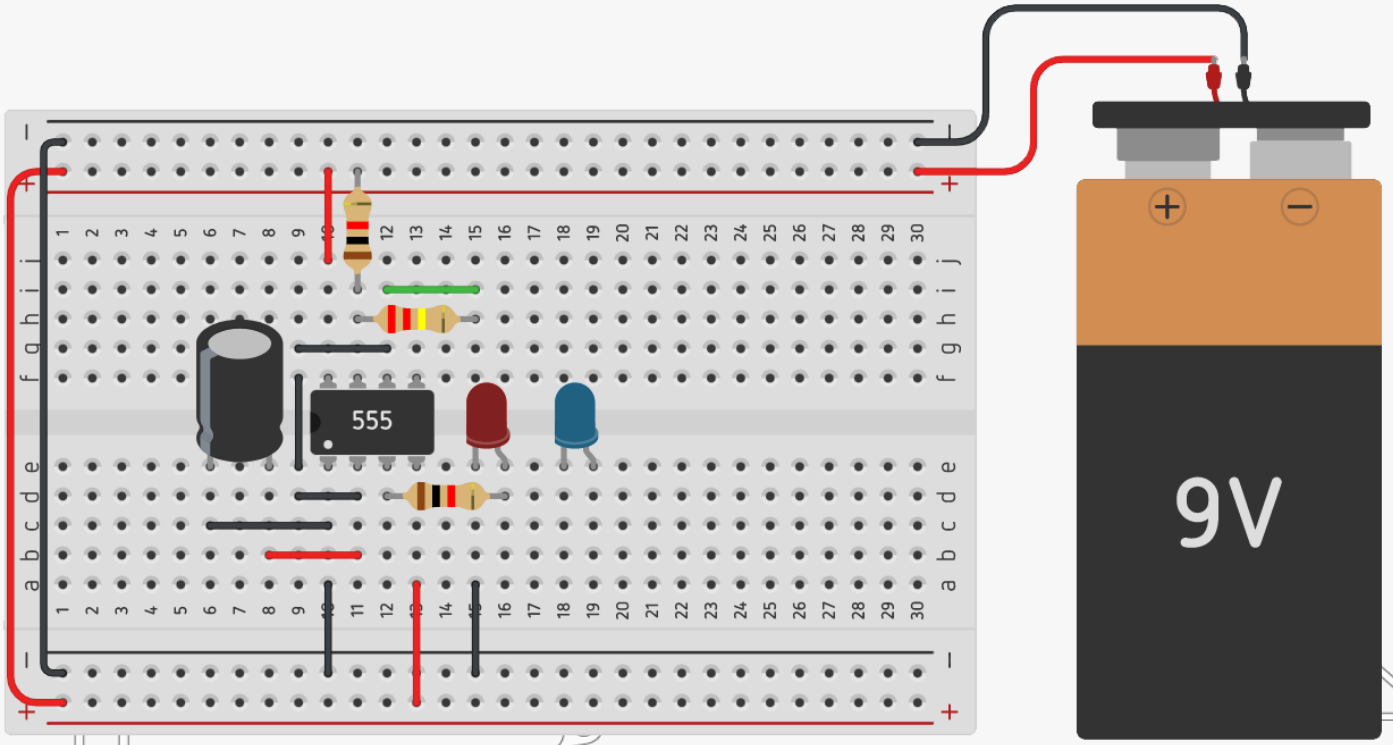
Connection Step 20

- Connect anode(+) terminal of battery to the positive(+) power rail of the breadboard as shown in the figure.



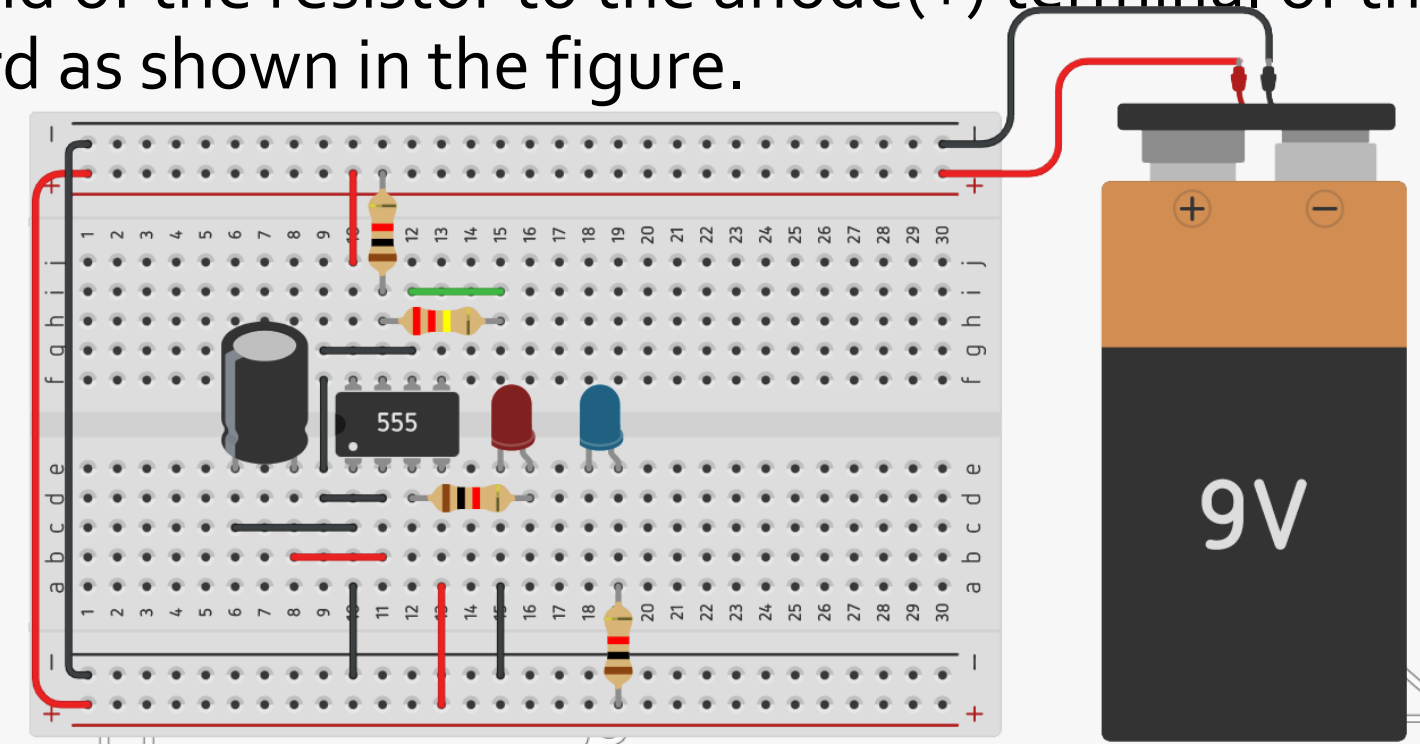
Connection Step 21

- Insert another LED in the breadboard as shown in the figure.



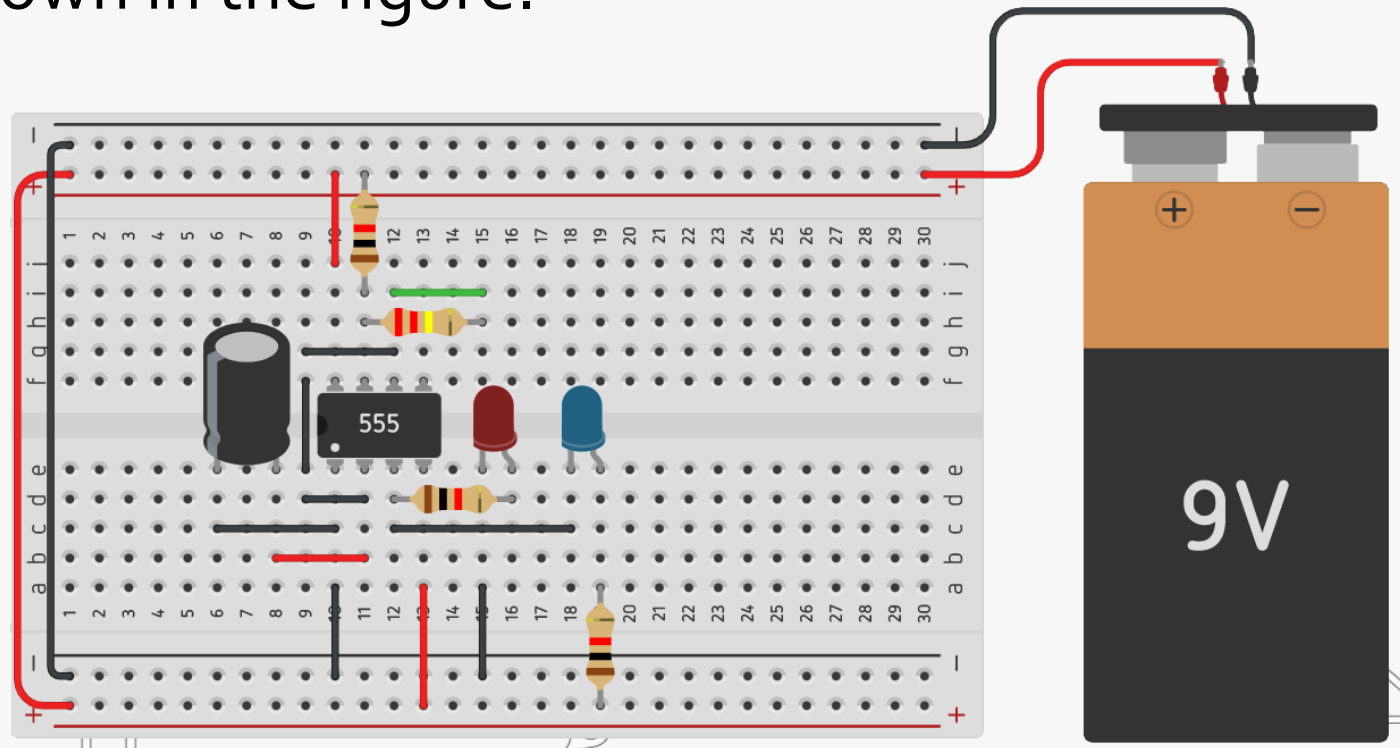
Connection Step 22

- Insert one resistor in the positive(+) power rail of breadboard and another end of the resistor to the anode(+) terminal of the LED in the breadboard as shown in the figure.



Connection Step 23

- Connect cathode(-) terminal of the LED to the OUT(pin 3) of the 555 timer as shown in the figure.



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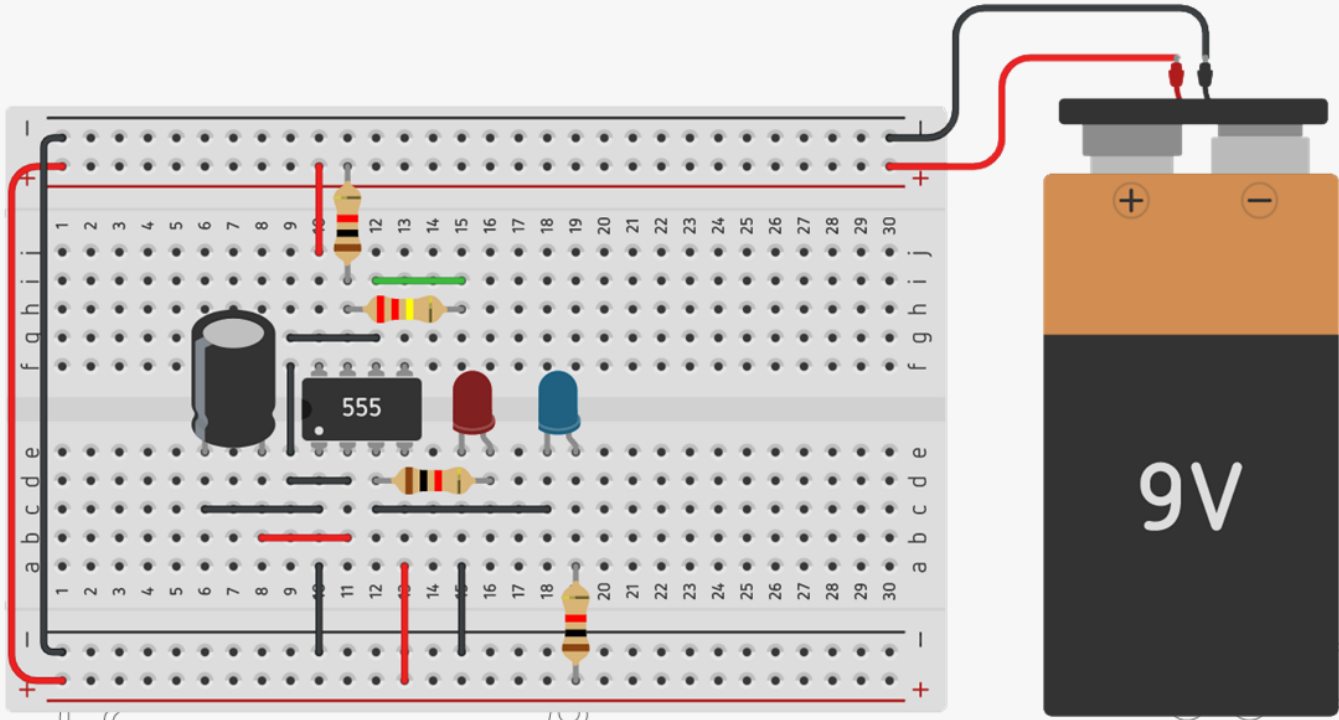
Connection Diagram

- Make sure your connections are made as per the diagram



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Data & Outcomes

Learning from the activity

Data

- Use of 555 timer
- How to make a chaser
- Generate pulse

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Learning from the activity

- How to use 555 timer
- How to make chaser using 555 timer

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Assessment

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Thank you