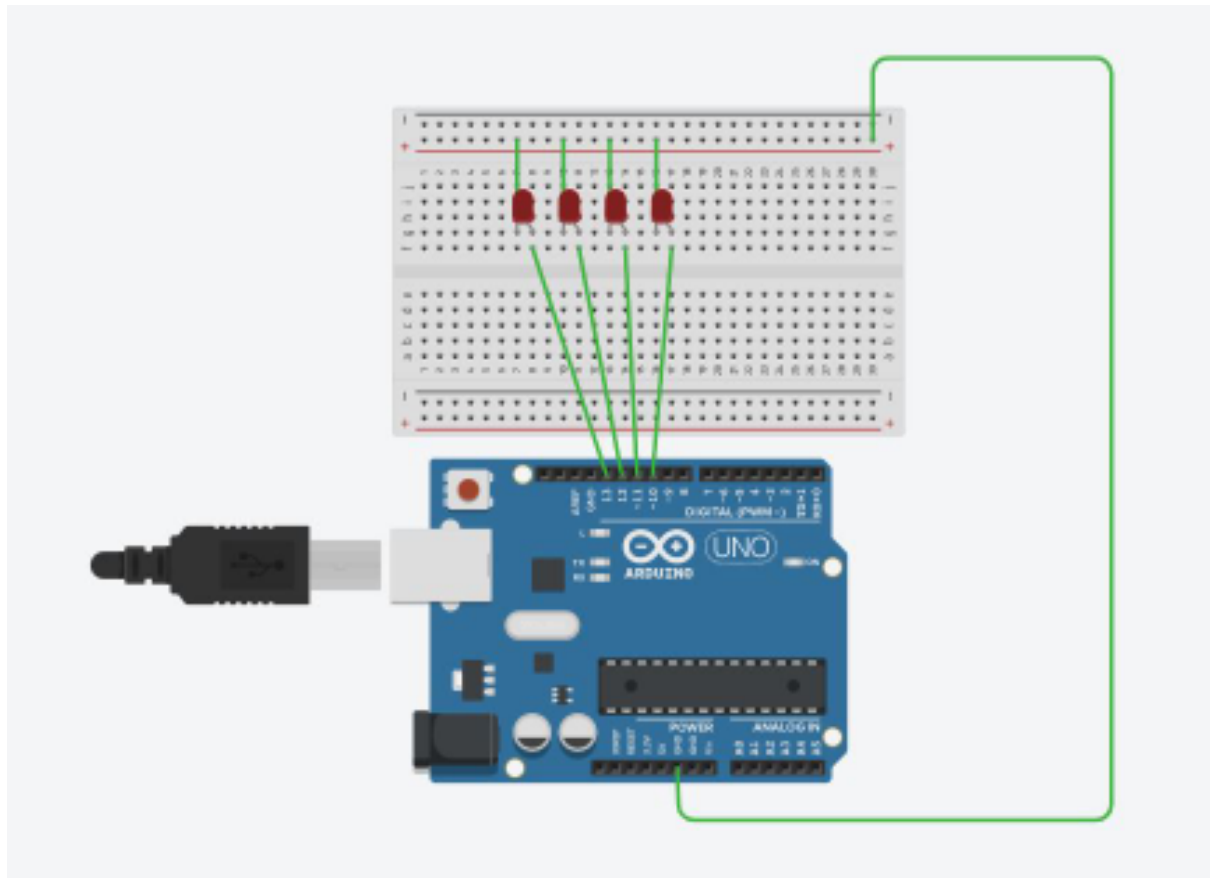# Exp. 2 Design Christmas dual led chaser lights.

Circuit Diagram:

Theory: 555 timer IC. The 555 timer IC is

an integrated circuit (chip) used in a variety of timer, pulse generation, and oscillator applications. The 555 can be used to provide time delays, as an oscillator, and as a flip-flop element. Derivatives provide two (556) or four (558) timing circuits in one package.

Learning & Observation:

1. Working of LED chaser.
2. Code for Arduino to Run LED Chaser.

Precautions:

1. There should not be any loose connection in the circuit.
2. Code should be written properly.
3. Arduino should be attached to pc/laptop properly.

Code:

```
void setup(){
// setting up output pins
for (int i = 10; i <= 13; i++) {
pinMode(i, OUTPUT);
}
}
void loop(){
for (int i = 10; i <14; i++) {
allLEDsOff();
 if (i!=13){
digitalWrite(i,HIGH);
digitalWrite(i+1,HIGH);
delay(200);
```

```
  }

else
digitalWrite(i,HIGH);
digitalWrite(i-3,HIGH);
delay(200);
allLEDsOff();
}
}


void allLEDsOff(void)
{
for (int i = 10; i <= 14; i++) {
digitalWrite(i, LOW);
}
delay(100);
}
```