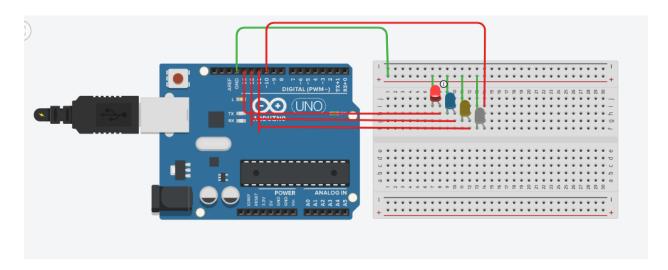
## EXP.2

#### **DESIGN AN LED Chaser.**

### **Circuit diagram:**



# **Theory:**

### **Concept used:**

- > By using kirchoff's voltage law
  - &
- > By using kirchoff's current law
- > Series or parallel connections

**Learning and observations:** 

Connections in Breadboard and wiring.

How to control arduino and its coding.

Use of multimeter for continuity.

## **OBSERVATION:**

- ➤ Blinking of leds in a pattern and in chasing form.
- > Relation between software and hardware.

## **Programming:**

```
void setup()
{
 pinMode(13, OUTPUT);
 pinMode(12, OUTPUT);
 pinMode(11, OUTPUT);
 pinMode(10, OUTPUT);
}
void loop()
{
 digitalWrite(13, HIGH);
 digitalWrite(12, LOW);
 digitalWrite(11, LOW);
 digitalWrite(10,LOW);
 delay(1000);
 digitalWrite(13, LOW);
 digitalWrite(12, HIGH);
 digitalWrite(11, LOW);
 digitalWrite(10,LOW);
```

delay(1000);

```
digitalWrite(13, LOW);
digitalWrite(12, LOW);
digitalWrite(11, HIGH);
digitalWrite(10,LOW);
delay(1000);
digitalWrite(13, LOW);
digitalWrite(12, LOW);
digitalWrite(11, LOW);
digitalWrite(11, LOW);
digitalWrite(10,HIGH);
delay(1000);
}
```

# **Problems & Troubleshooting:**

- To select the right port and type of arduino
- To check the loose connections
- To check the connections according to the codes
- To check the continuity of the circuit
- To check the flow of current in the circuit

#### **Precautions:**

- Handle tools carefully
- Wear gloves
- Do not connect arduino till the circuit is complete

#### **Outcomes:**

- LEDs glows in a chasing pattern
- It can be used as for decorating purpose