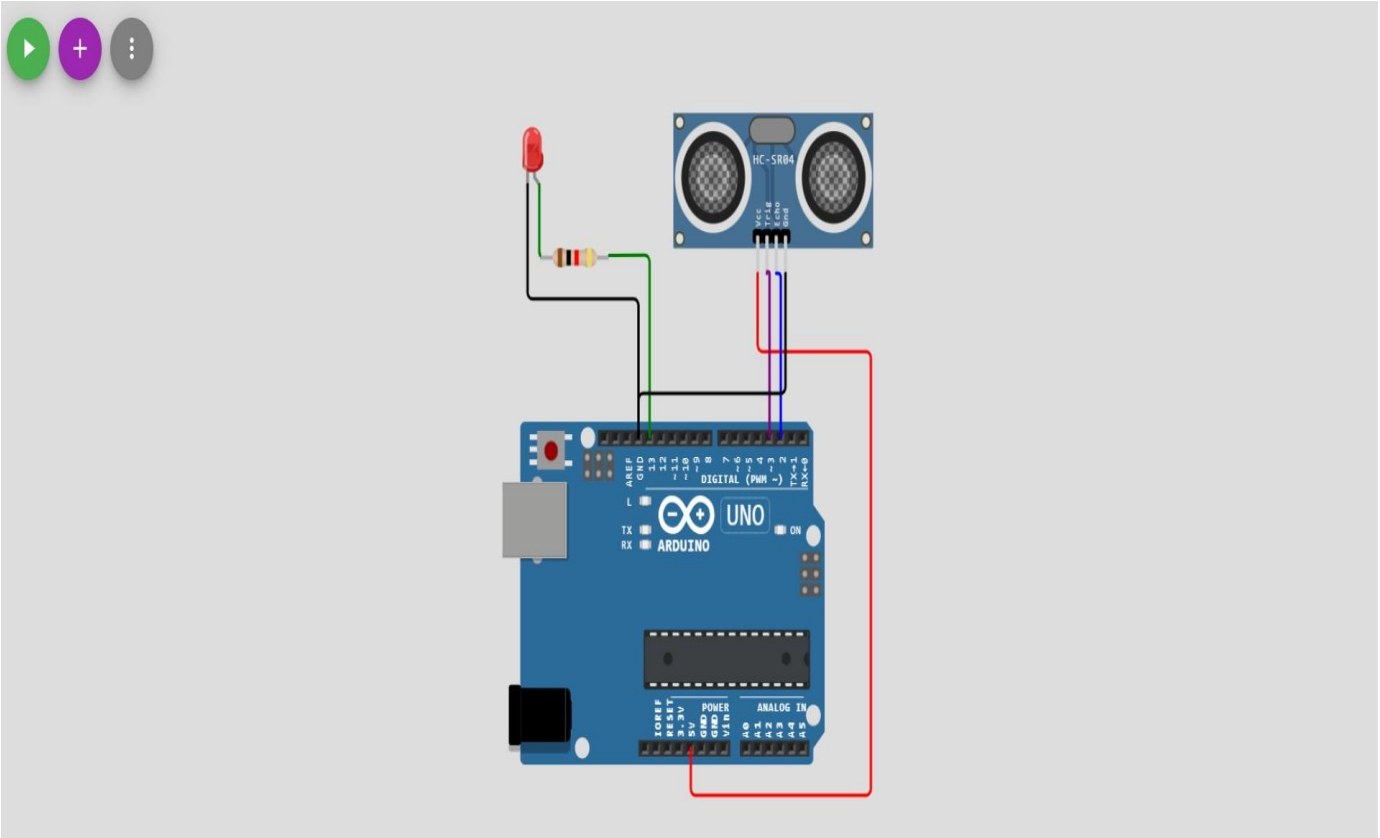
ULTRASONIC SENSOR




```
const int TRIG_PIN = 7;
const int ECHO_PIN = 8;

const unsigned int MAX_DIST = 23200;

void setup() {

pinmode(TRIG_PIN, OUTPUT);
digitalWrite(TRIG_PIN, low);

pinMode(ECHO_PIN, INPUT);
Serial.begin(9600);
}
```

```
Void loop() {

    Unsigned long t1;
    Unsigned long t2;
    Unsigned long pulse_width;
    float cm;
    float inches;

    digitalWrite(TRIG_PIN, HIGH);
    digitalMicriseconds(10);
    digitalWrite(TRIG_PIN, LOW);

    while ( digitalRead(ECHO_PIN) == 0 );

    t1 = micros();
    while ( digitalRead(ECHO_PIN) == 1);
    t2 = micros();
    pulse_width = t2 - t1;

    cm = pulse_width / 58.0;
    inches = pulse_width / 148.0;

    if ( pulse_width > MAX_DIST ) {
    Serial.println("Out of range");
  } else {
    Serial.print(cm);
    Serial.print(" cm \t");
    Serial.print(inches);
    Serial.println(" in");
  }

delay(60);
}
```