

Practical -5

Objective: Create live project and implementation on Arduino boards with different sensors.

Program for LED light and Ultrasonic sensor:

```
int trigPin = 9; // Transfer to data
int echoPin = 10; // receive to data
int led1 = 1; // for LED1
int led2 = 2; // for LED2

void setup() {
  Serial.begin(9600); // Port Rate
  pinMode(led1, OUTPUT); // taking To LED1 as OUTPUT
  pinMode(led2, OUTPUT); // taking to LED2 as OUTPUT
  pinMode(trigPin, OUTPUT); //trig-ring for to transfer to device
  pinMode(echoPin, INPUT); //echo receiving to voice
}

void loop() {
  long distance, duration;
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(2000);
  digitalWrite(trigPin, LOW);
  duration = pulseIn(echoPin, HIGH);
  distance = (duration/2)/29.1;
  Serial.print(distance);
  Serial.println("CM");
  delay(500);

  if((distance<10)){
    digitalWrite(led1, HIGH);
    digitalWrite(led2, LOW);
  }
  else if(distance>10){
    digitalWrite(led2, HIGH);
    digitalWrite(led1, LOW);
  }
}
```