

Assignment-1

```
int triggerPin = 7;
int echoPin = 6;
unsigned long duration;
int distance;
int pinSensor =2;
int pinLed =12;
int pinBuzzer =13;
int pirSensor =0;
void setup()
{
    pinMode(triggerPin, OUTPUT);
    pinMode (echoPin, INPUT);
    Serial.begin(9600);
    pinMode(pinSensor, INPUT);
    pinMode(pinLed, OUTPUT);
    pinMode(pinBuzzer, OUTPUT);
}
void loop()
{
    digitalWrite(triggerPin, LOW);
    delayMicroseconds(2);
    //clearing the trigger
    digitalWrite(triggerPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(triggerPin, LOW);
    // capturing the time duration for sound wave to travel in microseconds
    duration = pulseIn(echoPin, HIGH);
```

```

distance = 0.01723 * duration;
Serial.print(distance);
Serial.println("cm");
pirSensor = digitalRead(pinSensor);
if (pirSensor == HIGH)
{
  digitalWrite(pinLed, HIGH);
  tone(pinBuzzer, 1000, 500);
}
else {
  digitalWrite(pinLed, LOW);
}
delay(10);
}

```

