Assignment-1

Python programming

Assignment Date	8.9.2022
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Maximum marks	

```
#include <LiquidCrystal.h>

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

Int distanceThreshold = 0;

Int cm = 0;

Int inches = 0;

Int releNO = 13;

Int inputPir = 8;

Int val = 0;

Int resuldoSensorLDR;

Int sensorLDR = A0;

Int const PINO_SGAS = A1;

Long readUltrasonicDistance(int triggerPin, int echoPin)

{

 pinMode(triggerPin, OUTPUT); digitalWrite(triggerPin, LOW);

 delayMicroseconds(2);
```

```
 digitalWrite(triggerPin, HIGH);
 delayMicroseconds(10);
 digitalWrite(triggerPin, LOW);
 pinMode(echoPin, INPUT);
 return pulseIn(echoPin, HIGH);
}
Void setup() {
 Lcd.begin(16, 2);

 pinMode(releNO, OUTPUT);
 pinMode(inputPir, INPUT);
 pinMode(sensorLDR, INPUT);
 Serial.begin(9600);
}
Void loop() {
 distanceThreshold = 350;
 cm = 0.01723 * readUltrasonicDistance(7, 6);
 inches = (cm / 2.54);

 lcd.setCursor(0,0);
 lcd.print(“D:”);
 lcd.print(cm);
```

```
 lcd.print(“cm”);
 delay(10);
 val = digitalRead(inputPir);
 resuldoSensorLDR = analogRead(sensorLDR);
 if(resuldoSensorLDR<600)
 {
 If(val == HIGH)
 {
 digitalWrite(releNO, HIGH);
 lcd.setCursor(0,1);
 lcd.print(“L: On “);
 delay(5000);
 }
 Else{
 digitalWrite(releNO, LOW);lcd.setCursor(0,1);
 lcd.print(“L: Off”);
 delay(300);
 }
}
 Else{ digitalWrite (releNO, LOW);
 Serial.println(resuldoSensorLDR);
 Delay(500);
```

```
Int color = analogRead(PINO_SGAS);

Lcd.setCursor(8,0);

//lcd.print(“”);

If(color <= 85){

Lcd.print(“G:Low “);

} else if(color <= 120){

Lcd.print(“G:Med “);

} else if(color <= 200){

Lcd.print(“G:High”);

} else if(color <= 300){

Lcd.print(“G:Ext “);

}


Delay(250);
```