Assignment -1

Python Programming

Assignment Date	19 September 2022
Student Name	B Abhinav
Student Roll Number	19D003
Maximum Marks	2 Marks

Question-1:

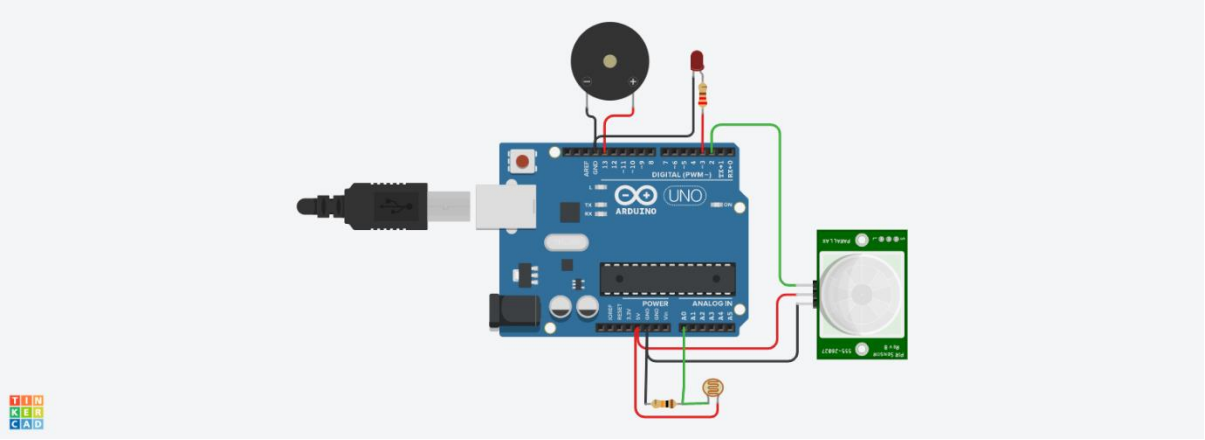
Make smart home with atleast 2 sensor and led, buzzer. In tinkercad

Solution:

```
int buzz = 13;              // the pin that the LED is atteched to
int sensor = 2;             // the pin that the sensor is atteched to
int state = LOW;            // by default, no motion detected
int val = 0;               // variable to store the sensor status (value)

int ldr=A0;//Set A0(Analog Input) for LDR.
int led = 3;
int value=0;

void setup() {
  pinMode(buzz, OUTPUT);      // initalize buzzer as an output
  pinMode(sensor, INPUT);    // initialize sensor as an input

  pinMode(led,OUTPUT);

  Serial.begin(9600);       // initialize serial
}

void loop(){

  value=analogRead(ldr);//Reads the Value of LDR(light).
  Serial.println("LDR value is :");//Prints the value of LDR to Serial Monitor.
```

```
Serial.println(value);
val = digitalRead(sensor);   // read sensor value

if(value<250)
{
  digitalWrite(led,HIGH);//Makes the LED glow in Dark.
}
else
{
  digitalWrite(led,LOW);//Turns the LED OFF in Light.
}

if (val == HIGH) {          // check if the sensor is HIGH
  digitalWrite(buzz, HIGH);   // turn buzzer ON

  delay(500);               // delay 100 milliseconds

  if (state == LOW) {
    Serial.println("Motion detected!");
    state = HIGH;       // update variable state to HIGH
  }
}
else {
    digitalWrite(buzz, LOW); // turn buzzer OFF
    delay(500);            // delay 200 milliseconds

    if (state == HIGH){
      Serial.println("Motion stopped!");
      state = LOW;       // update variable state to LOW
  }
}
```

}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