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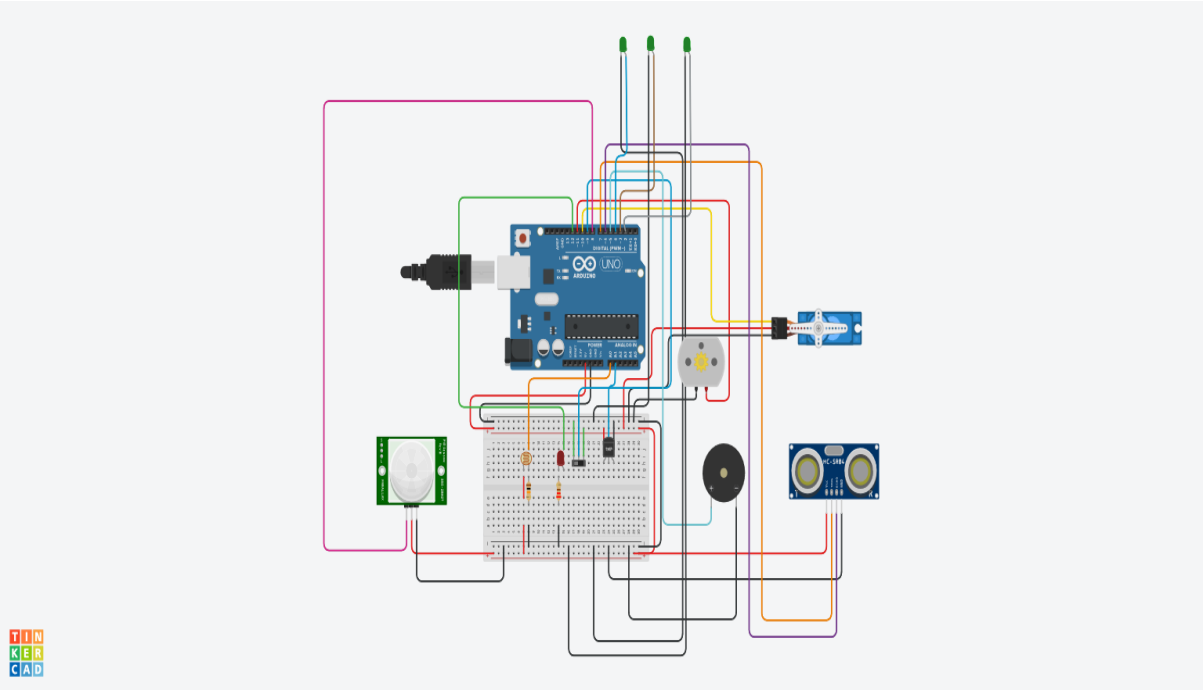
ASSIGNMENT – 1

Make a Smart Home in Tinker cad, using 2+ sensors, Led, Buzzer in single code and circuit.

Smart Home Automation Tinker cad link:

https://www.tinkercad.com/things/jn7wQ53lysY-super-borwo/editel?sharecode=A7D9SLGjkSnjh2BvBDINcCaPQxvfNUB3jPYk3V8X_ZY



Program Code:

```
#include <Servo.h>
const int PIR_Sensor = 8;
Servo doorservo;
int ldr = A0;
int led = 12;
int tmp = A1;
int motor = 11;
int d;
int const trigPin = 7;
int const echoPin = 6;
int const buzzPin = 5;
void setup()
{
  pinMode(ldr,INPUT);
  pinMode(led,OUTPUT);
  pinMode(tmp,INPUT);
  pinMode(motor,OUTPUT);
  doorservo.attach(10);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(buzzPin, OUTPUT);
  pinMode(2, OUTPUT);
  pinMode(3, OUTPUT);
  pinMode(4, OUTPUT);
  pinMode(9,INPUT);
}
```

```
void loop()
{
 int ldrs = analogRead(ldr);
 if(ldrs <= 300)
 {
  digitalWrite(led,HIGH);
  digitalWrite(2,HIGH);
  digitalWrite(3,HIGH);
  digitalWrite(4,HIGH);
 }
 else
 {
  digitalWrite(led,LOW);
  digitalWrite(2,LOW);
  digitalWrite(3,LOW);
  digitalWrite(4,LOW);
 }
 int reading = analogRead(tmp);
 float voltage = reading * 5.0;
 voltage /= 1024.0;
 float temperatureC = (voltage - 0.5) * 100 ;
 if(temperatureC >= 30)
 {
  digitalWrite(motor,HIGH);
 }
 else
 {
```

```
   digitalWrite(motor,LOW);
  }
  d = digitalRead(9);
   if(d== 1){
   doorservo.write(100);
  }
  else{
   doorservo.write(0);
  }
int duration, distance;
          digitalWrite(trigPin, HIGH);
          delay(1);
          digitalWrite(trigPin, LOW);
          duration = pulseIn(echoPin, HIGH);
          distance = (duration/2) / 29.1;
   if (distance <= 50 && distance >= 0) {
          digitalWrite(buzzPin, HIGH);
   } else {
          digitalWrite(buzzPin, LOW);
   }
   delay(60);
  if (digitalRead(PIR_Sensor)==HIGH)
     {digitalWrite(buzzPin, HIGH);}
  else  {digitalWrite(buzzPin, LOW);}
}
```