DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSIGNMENT 1

SMART HOME USING TINKER CAD

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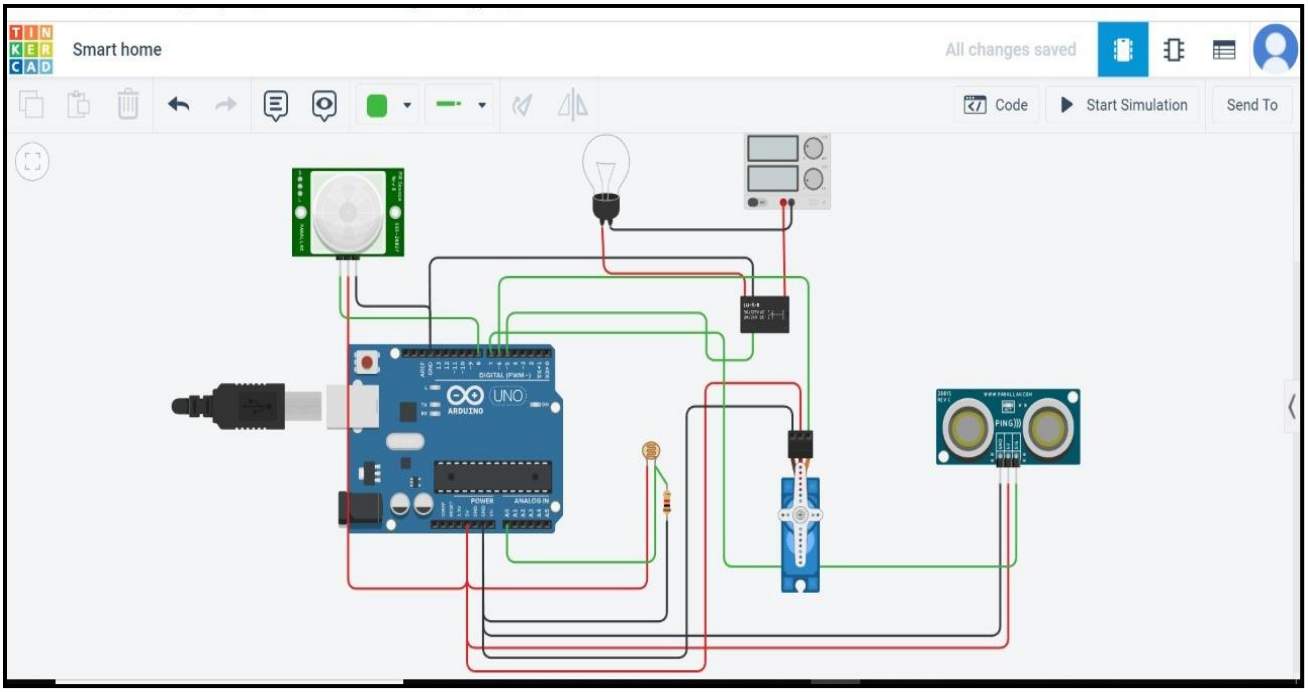
SENSORS USED

- ✓ PIR
- ✓ Micro servo
- ✓ Ultrasonic
- ✓ Photo resistor

The bulb will glow when a motion is detected in PIR sensor or based on the brightness in photo resistor

The servo motor act as a gate, when the object is at closest distance (measured by ultrasonic sensor) the motor will rotate which indicates the opening of gate.



CODE

```
float x,y,z;
#include<Servo.h>
Servo s;
```

```
void setup()
{
  Serial.begin(9600);
  pinMode(8, INPUT); // PIR
  pinMode(5, OUTPUT); // BULB
  pinMode(A0, INPUT);  // photoresistor
  pinMode(7, OUTPUT); // ultrasonic
  s.attach(6); // servo
}

void loop()
{
  x = digitalRead(8);  // PIR (Motion detected = 1 else 0)
  y = analogRead(A0);  // photoresistor
  z = digitalRead(7);  // distance
  Serial.println(x);
  Serial.println(y);
  Serial.println(z);
  if((x>0) || (y<500))
  {
    digitalWrite(5, HIGH);
    delay(1000);
  }
  else
  {
    digitalWrite(5, LOW);
  }
  if(z<100)
  {
    s.write(180);
    delay(1000);
  }

}
```

Tinker cad link

https://www.tinkercad.com/things/eglVtke6jdc-smart-home-/editel