

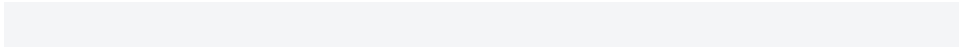
# ASSIGNMENT 1: SMART HOME AUTOMATION WITH SENSORS USING ARDUINO UNO

## SOFTWARE COMPONENT: TINKERCAD

**OBJECTIVE:** The main objective of this project is to develop a home automation system using an Arduino board having to main functions:

1. Automatically turn ON/OFF the lights when a person enters or leaves the room.
2. Automatically turn ON/OFF the fan when a person enters or leaves the room.

## CIRCUIT DESIGN:

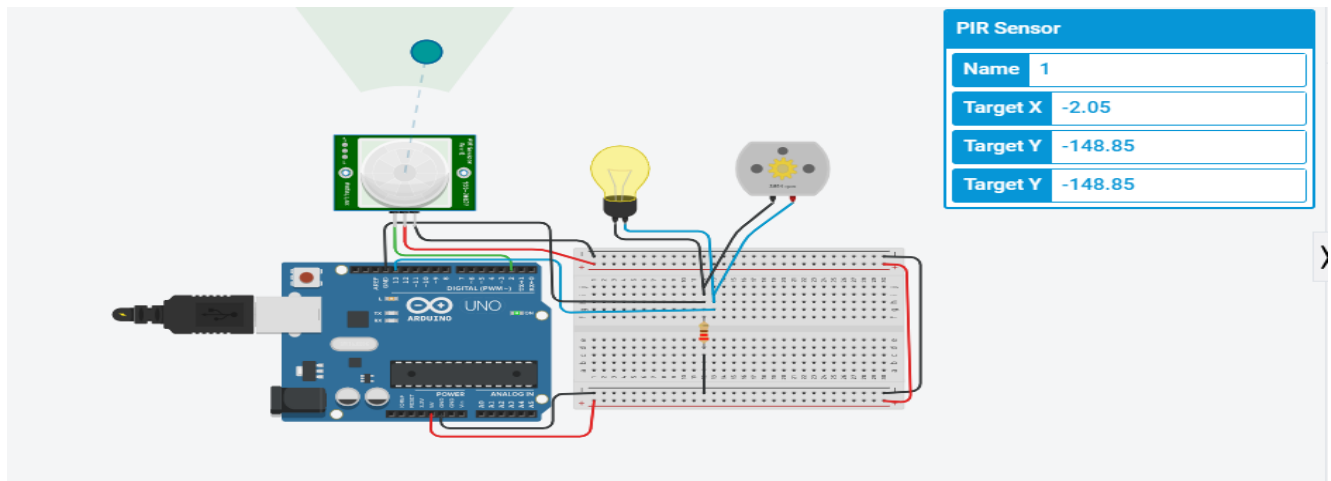


## CODE:

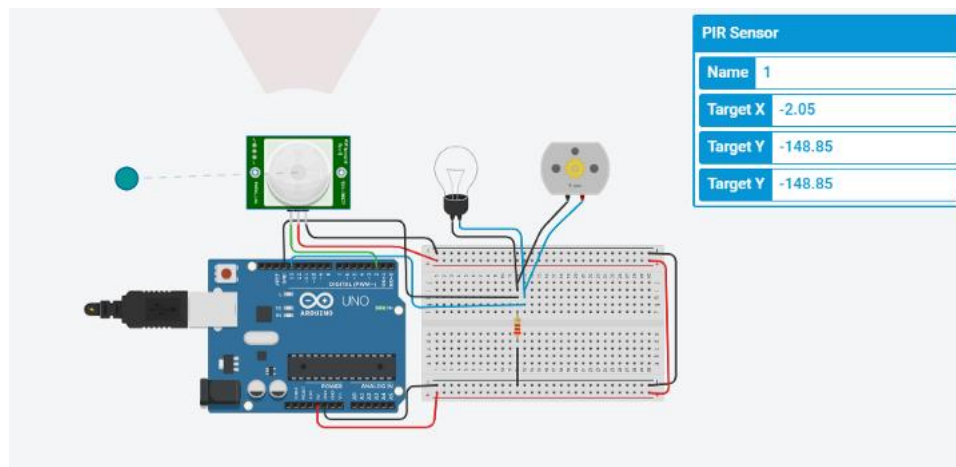
```
int pirsensor = 0;
void setup()//the setup routine runs once when you press reset
{
  pinMode(13,OUTPUT);//initialize digital 13 pin as an output
  pinMode(12,INPUT);//initialize digital 12 pin as an input
}
void loop()//the loop routine runs multiple times
{
  pirsensor = digitalRead(2);
  if (piрсensor ==HIGH)
  {
    digitalWrite(13,HIGH);
    delay(10000);
  }
  else
  {
```

```
digitalWrite (13,LOW);
delay(120);
}
}
```

**OUTPUT/SIMULATION:** when the object is in range



**OUTPUT/SIMULATION:** when the object is not in the range



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