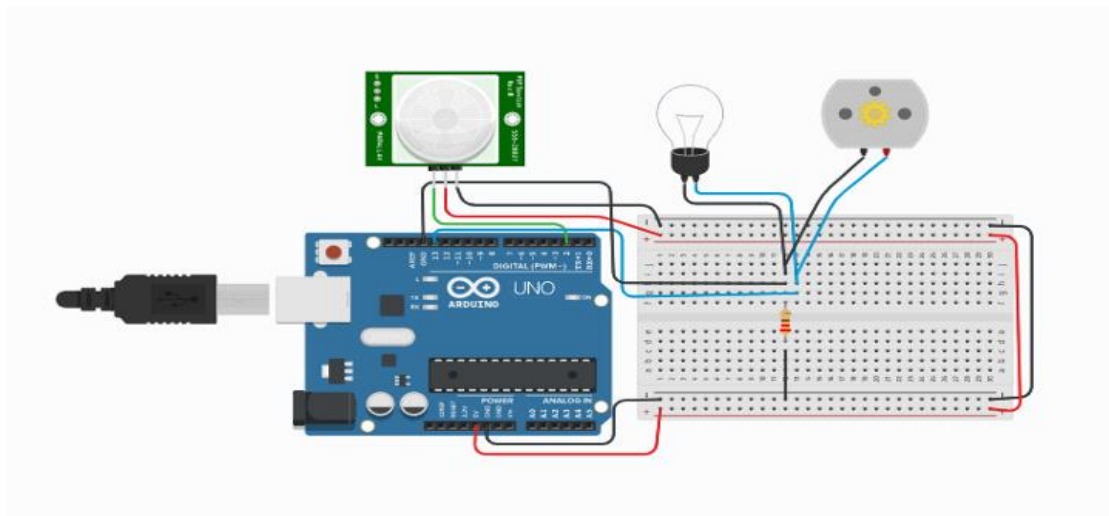## ASSIGNMENT 1: SMART HOME AUTOMATION WITH SENSORS USING ARDUINO UNO

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:

- Automatically turn ON/OFF the lights when a person enters or leaves the room.

- Automatically turn ON/OFF the fan when a person enters or leaves the room.
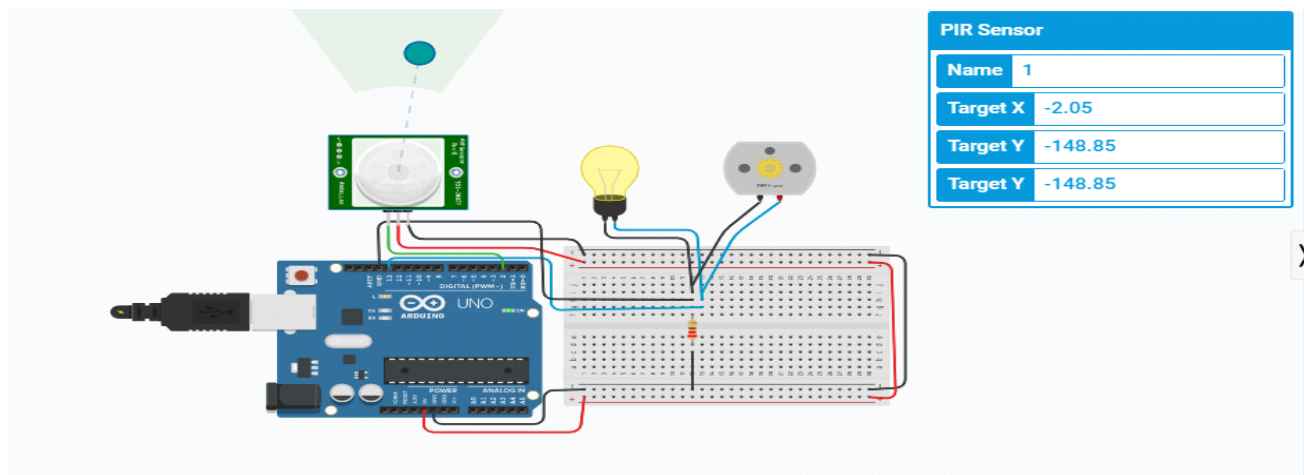
CIRCUIT DESIGN:

CODE:

```
int pirsensor = 0;
void setup()//the setup routine runs once when you press reset
{
```
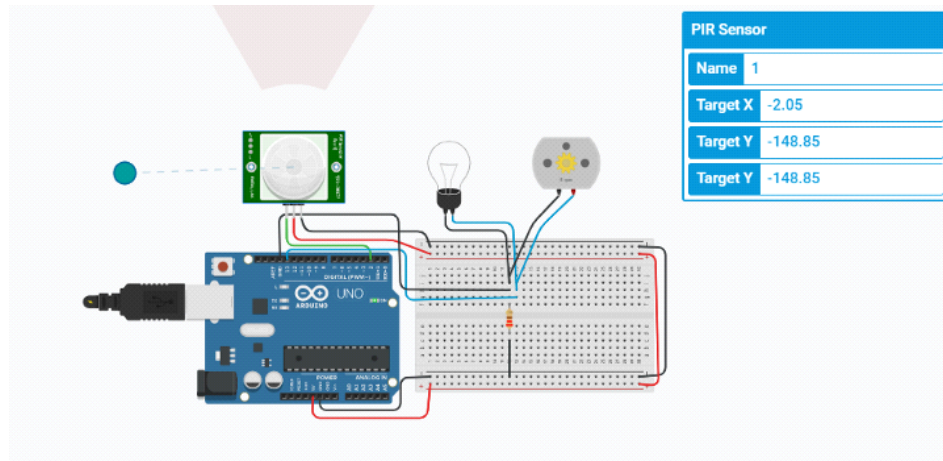
```
pinMode(13,OUTPUT);//initialize digital 13 pin as an output
pinMode(12,INPUT);//initialize digital 12 pin as an input
}
void loop()//the loop routine runs multiple times
{
pirsensor = digitalRead(2);
if (pirsensor ==HIGH)
{
digitalWrite(13,HIGH);
delay(10000);
}
else
{
digitalWrite (13,LOW);
delay(120);
}
}
```

OUTPUT/SIMULATION: when the object is in range

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

PIR Sensor

Name	1
Target X	-2.05
Target Y	-148.85
Target Y	-148.85

NAME: NANTHINI.N

REG NO: 963019106003