# SMART LIGHT SYSTEM

IOT

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# Smart Street Light System

## Description:

- In this project we will use the IR sensor to detect the user presence and turn the light on and off.
- You can also create this project using PR light sensor the nature of project would change in that project the light would operate if pr sensor senses any light or not basis.

**NOTE:** This code is only using one ir sensor and one led you can use multiple

## Software:

- Arduino IDE

## Components Required:

- LED
- IR proximity sensor

- Arduino UNO

## Wiring Schematics:

| IR sensor | Arduino UNO |
|---|---|
| • Out | 2 |
| • VCC | 3.3V |
| • GND | GND |

LED to 4 of Arduino and other to GND

## Code:

```
int ir1=2;

int led1=4;

int proxy1=0;


void setup() {

 // put your setup code here, to run once:

pinMode(ir1,INPUT);


pinMode(led1,OUTPUT);


}


void loop() {

 // put your main code here, to run repeatedly:


proxy1=digitalRead(ir1);


if(proxy1==HIGH)

{

 digitalWrite(led1,HIGH);


}


else

{

 digitalWrite(led1,LOW)

}

}
```

## Procedure:

1. First thing first after setting up the hardware according to the above schematics open Arduino IDE.

2. Create two int variables for ir sensors pin and led pin.

```
int irl=2;

int ledl=4;
```

3. In the setup () initialize the pinMode ir1 to input and led1 to output.

```
void setup() {
  // put your setup code here,
pinMode(irl,INPUT);

pinMode(ledl,OUTPUT);
```

4. Now in loop () check if ir sensor senses something then led should turn on else it should remain off.

```
void loop() {
  // put your main code here, to run repeatedly:

proxyl=digitalRead(irl);

if(proxyl==LOW)
{
  digitalWrite(ledl,HIGH);



}

else
{
  digitalWrite(ledl,LOW)
}
```