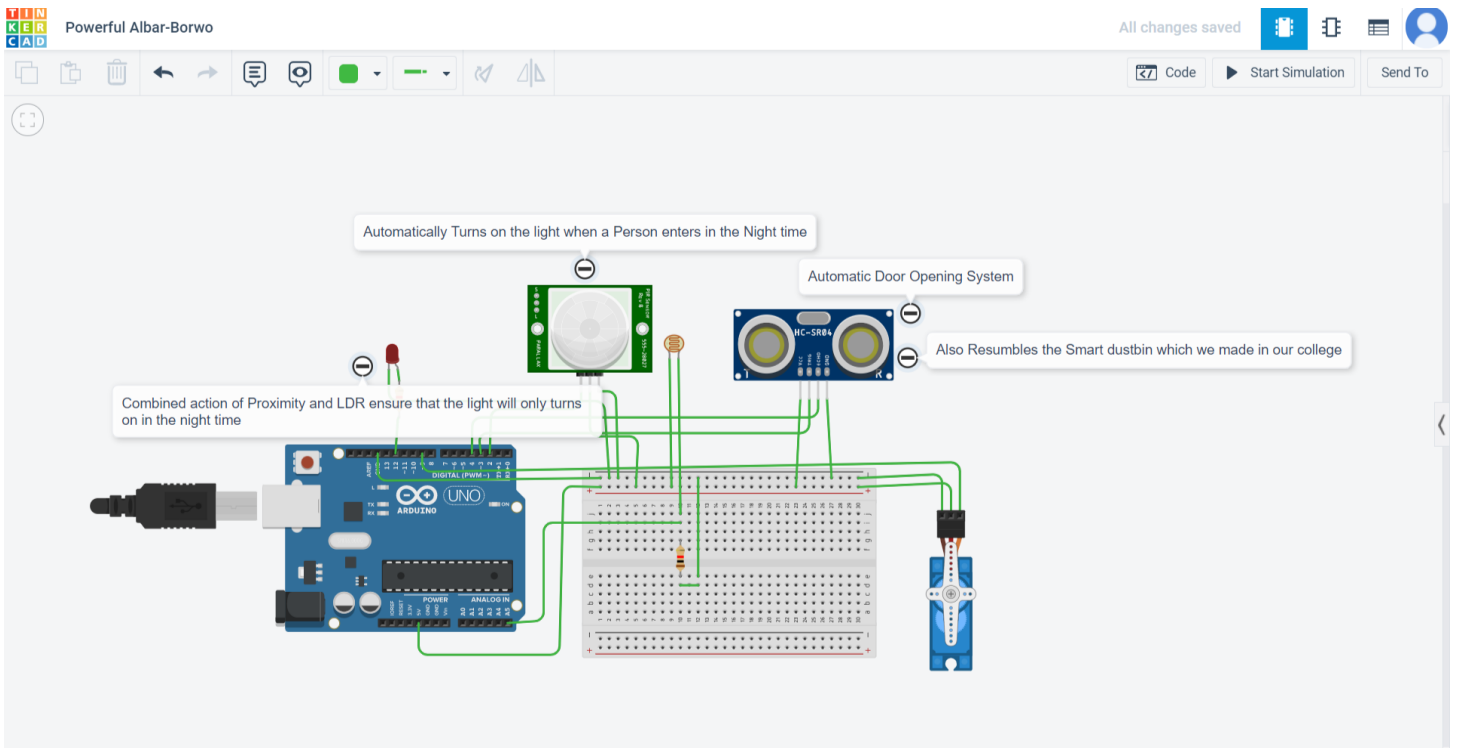# IOT Assignment Week-1

Smart Home Automation

Arduino Program

```cpp
// C++ code
//
#include<Servo.h>
Servo servo;
int pr=A5,pir=2,led=12,trig=3,echo=4;
void setup()
{
  pinMode(pir,INPUT);
  pinMode(pr,INPUT);
  pinMode(led,OUTPUT);
  pinMode(trig,OUTPUT);
  pinMode(echo,INPUT);
  Serial.begin(9600);
  servo.attach(9);
}

void loop()
{
  int m=digitalRead(pir);
  int l=analogRead(pr);
```

IOT Assignment Week-1

```
Serial.println(l);
if(m==1)
{
  if(l<100)
  {
    digitalWrite(led,HIGH); }
  else {
    digitalWrite(led,LOW); }
}
digitalWrite(trig,0);
digitalWrite(trig,1);
delayMicroseconds(10);
digitalWrite(trig,0);
float dur=pulseIn(echo,HIGH);
float dis=(dur*0.0343)/2;
if(dis<50)
{
  servo.write(90); }
else{
  servo.write(0); }
}
```

Tinkercad Link:
https://www.tinkercad.com/things/8uhLjsAaf8J-powerful-albar-borwo/editel?sharecode=2LLLyS2Nh9TSslSxAMLGEUAn__JKvd-RoiQMYpFbVVA