IOT Weekly Assignment-1

Code   ▶ Start Simulation

HC-SR04 can be placed on top of the water tank to monitor water level, and by replacing LED with a solid-state relay we can Control the motor

Also Used to turn the lights automatically

Automatically turns the light ON when a person enters the room

HC-SR04

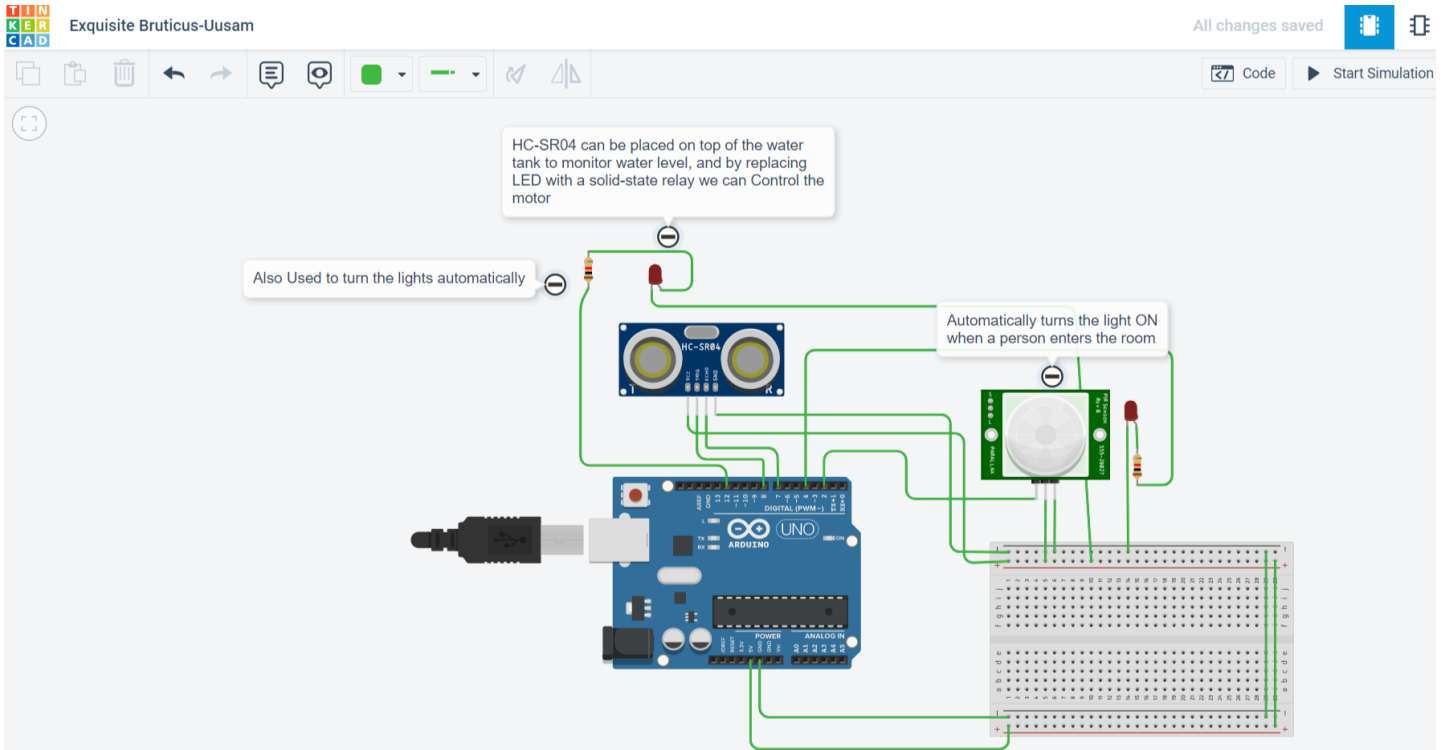ARDUINO UNO

Arduino Program:

```cpp
// C++ code
//
int pir=2,led1=4,t=8,e=7,led2=12;
void setup()
{
  pinMode(pir,INPUT);
  pinMode(led1,OUTPUT);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  pinMode(led2,OUTPUT);
  Serial.begin(9600);
}

void loop()
{
  int a=digitalRead(pir);
  Serial.println(a);
  if(a==1){
    digitalWrite(led1,HIGH);
  }
  digitalWrite(t,0);
```

IOT Weekly Assignment-1

```
digitalWrite(t,1);
delayMicroseconds(10);
digitalWrite(t,0);
float dur=pulseIn(e,HIGH);
float dis=(dur*0.0343)/2;
Serial.print("distance is");
Serial.println(dis);
if(dis<=50){
  digitalWrite(led2,HIGH);
}
else{
  digitalWrite(led2,LOW);
}
}
```

Tinkercad Program:
https://www.tinkercad.com/things/aH9j55lFlJA-exquisite-bruticus-uusam/editel?sharecode=ydyV6nucPz0Ec5-75pSWvcce5qTa_X5YU5T1286p92o