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Practical Assignment

1. **PIR sensor to detect motion and light the bulb.**

Code:

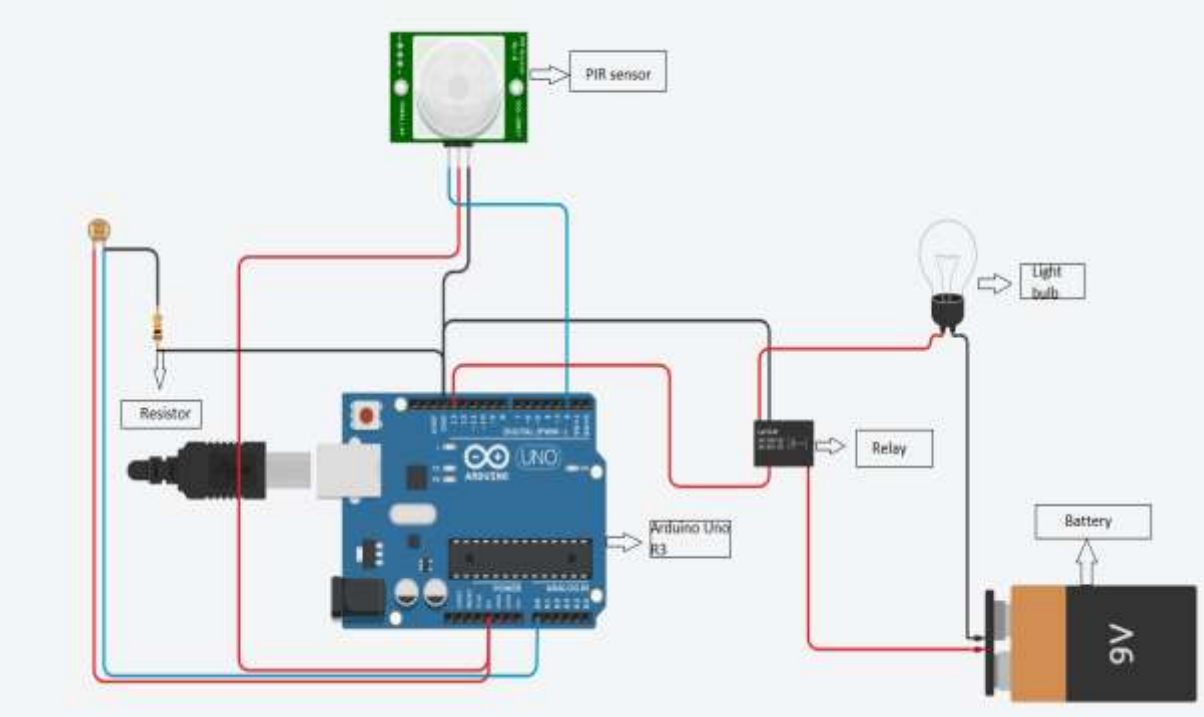
```
int releNO = 13;
int inputPir = 2;
int val = 0;
int resuldoSensorLDR;
int sensorLDR = A0;

void setup()
{
 pinMode(releNO, OUTPUT);
 pinMode(inputPir, INPUT);
 pinMode(sensorLDR, INPUT);
 Serial.begin(9600);
}

void loop()
{
 val = digitalRead(inputPir);
 resuldoSensorLDR = analogRead(sensorLDR);
 if(resuldoSensorLDR<600)
 {
  if(val == HIGH)
  {
   digitalWrite(releNO, HIGH);
   delay(5000);
 }
  else{
   digitalWrite(releNO, LOW);
   delay(300);
 }
```

```
}
  else{ digitalWrite (releNO, LOW);
  Serial.println(resuldoSensorLDR);
  delay(500);
   }
}
```

Circuit diagram:



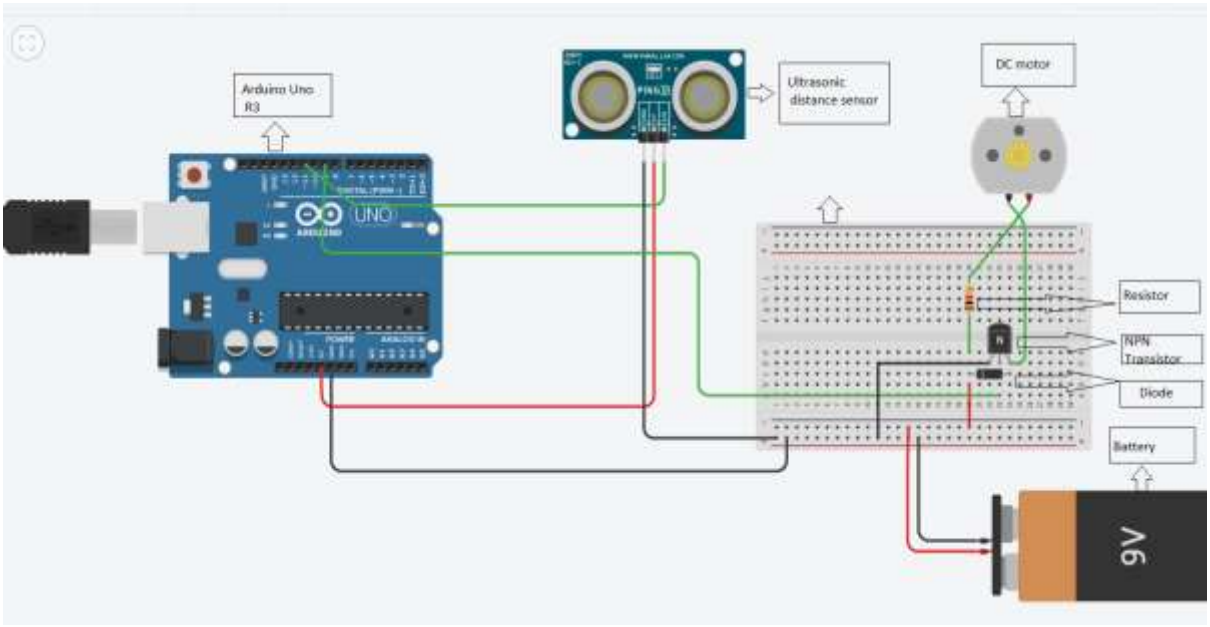
2. Water Level Detector.

Code:

```
void setup()
{
  pinMode(13, OUTPUT);
}

void loop()
{
  digitalWrite(13, HIGH);
  delay(1000); // Wait for 1000 millisecond(s)
  digitalWrite(13, LOW);
  delay(1000); // Wait for 1000 millisecond(s)
}
```

Output:



3. **Smoke sensor with buzzer alarm.**

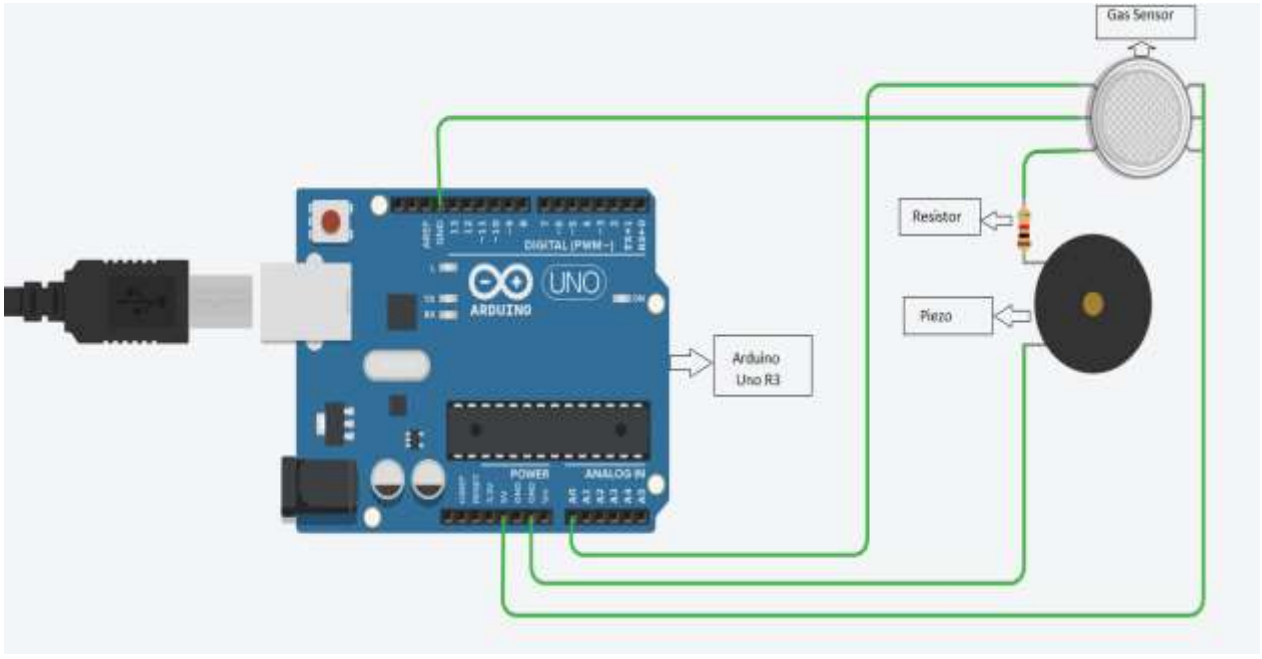
Code:

```
const int gasPin = A0;

void setup()
{
        Serial.begin(9600);
}

void loop()
{
        Serial.println(analogRead(gasPin));
        delay(1000);
}
```

Output:



4. **Room having 2 light bulb and 2 fan.**

Code:

```
void setup()
{
  pinMode(13, OUTPUT);
}

void loop()
{
  digitalWrite(13, HIGH);
  delay(1000); // Wait for 1000 millisecond(s)

}
```

Output: