EXPERIMENT NUMBER: 2.5

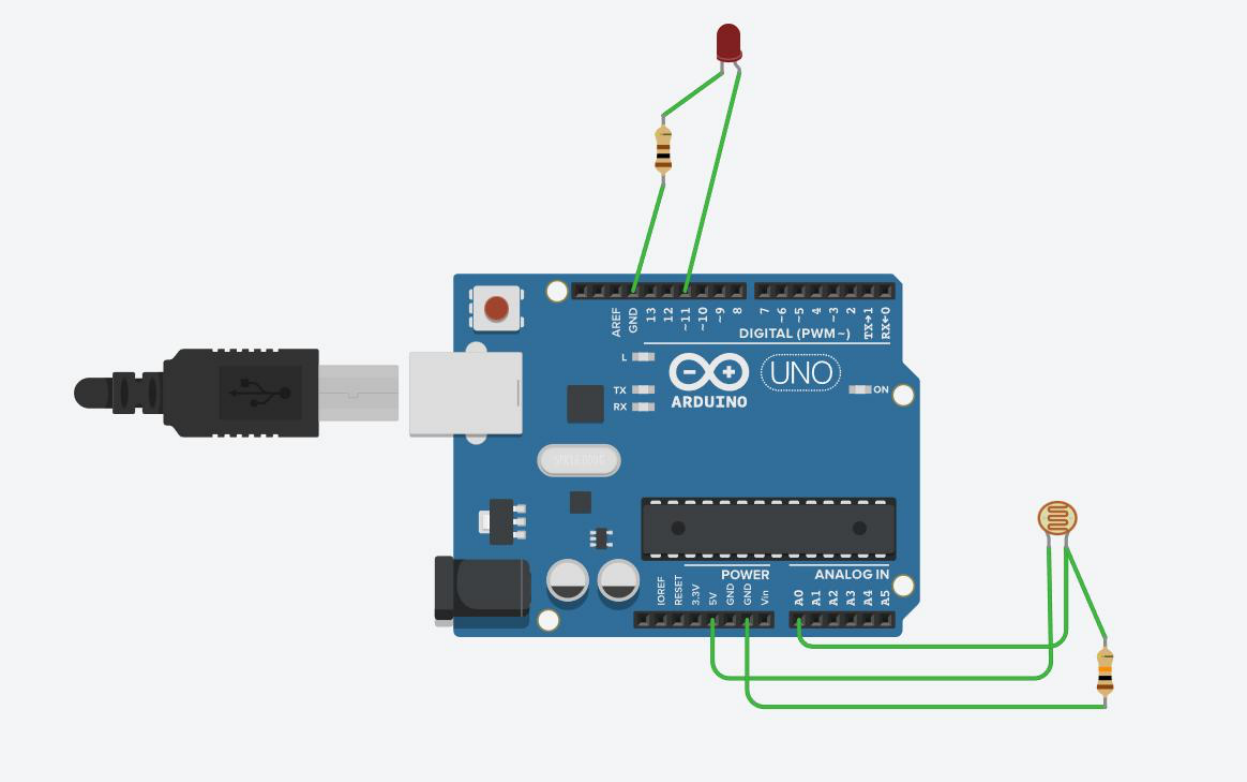
AIM:

Design automatic street light using LDR.

APPARATUS:

ARDUINO, LDR, Resistance 10k ohm, wires, Photo resistor.

CIRCUIT DIAGRAM:

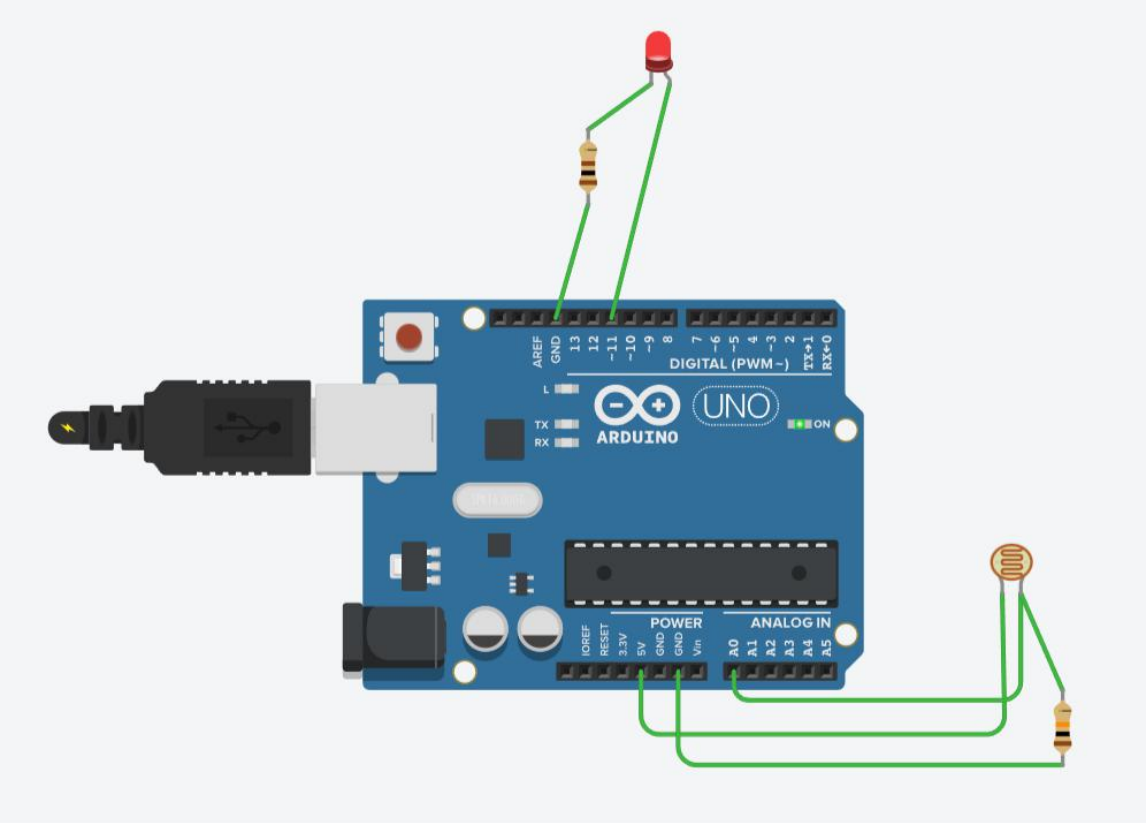


CODE:

```
//  C++ code
int ldr = 0;
void setup()
{
  pinMode(A0, INPUT);
  pinMode(11, OUTPUT);
}

void loop()
{
  ldr = analogRead(A0);
  analogWrite(11, map(ldr, 0, 1023, 180, 0));
  delay(10); // Delay a little bit to improve simulation performance
}
```

OBSERVATIONS:



RESULT:

Designing of automatic night lamp was verified after uploading the program.

SOURCES OF ERROR:

1. Due to internal resistance of multimeter.
2. Due to interruption of power supply.
3. Due to wrong connection of circuit.

LEARNING OUTCOMES:

1. Introduction to arduino uno.
2. Circuit designing of automatic night lamp using LDR.
3. Verification of experiment.

Evaluation Grid (To be filled by Faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Worksheet completion including writing learning objectives/Outcomes. (To be submitted at the end of the day)		10
2.	Post Lab Quiz Result.		5
3.	Student Engagement in Simulation/Demonstration/Performance and Controls/Pre-Lab Questions.		5
	Signature of Faculty (with Date):	**Total Marks Obtained:**	**20**