Ex.No:	
Date :	**LDR SENSOR**

AIM:

To design and simulate LDR sensor using Arduino uno board using proteus 8 and Arduino IDE.

COMPONENTS REQUIRED:

COMPONENTS	NOS
ARDUINO UNO R3	1
LDR SENSOR	1

PROCEDURE:

Step1:Open proteus8 IDE,file->new project.

Step2:Select the Arduino uno board from the device list, LDR sensor.

Step3:Place the Arduino board and all the components in the workspace.

Step4: Connect the Vcc in Ldr sensor to 5V in Arduino board.

Step5: Connect the GND in Ldr sensor to GND in Arduino board.

Step6:Connect the DO in Ldr Sensor to 7th pin in Arduino board.

Step 7: Open the Arduino IDE.

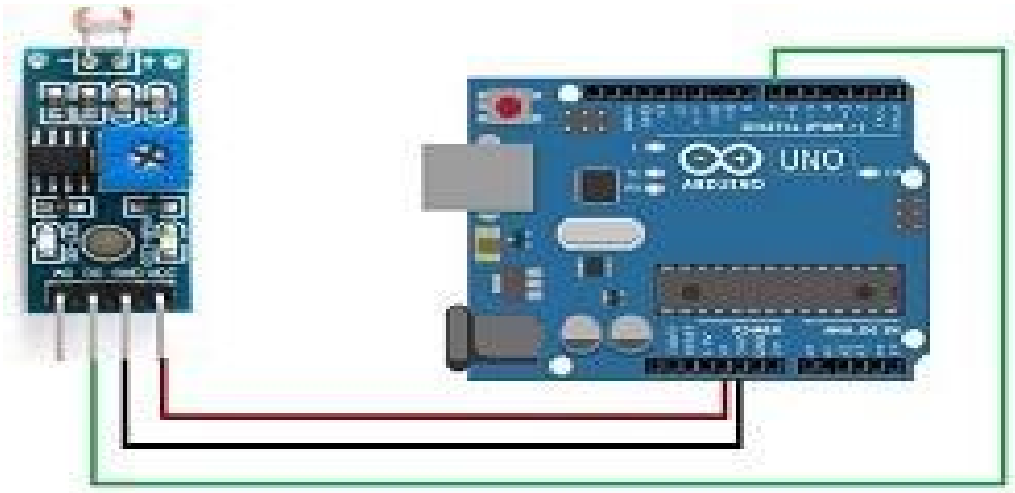
Step 8:Initializetheprogram inasetup, andthetypetheprogram inaloop

Step 9:Compiletheprogramandcopythe.hexfilelocationintheArduinoterminal after compilation.

Step 10: Double-click on it, In the properties window, paste the .hex file path in the“program File” field, Click OK to close the window.

Step 11: Run the simulation by clicking on the play button. You should see the output according to the sketch.

SCHEMATIC DIAGRAM:

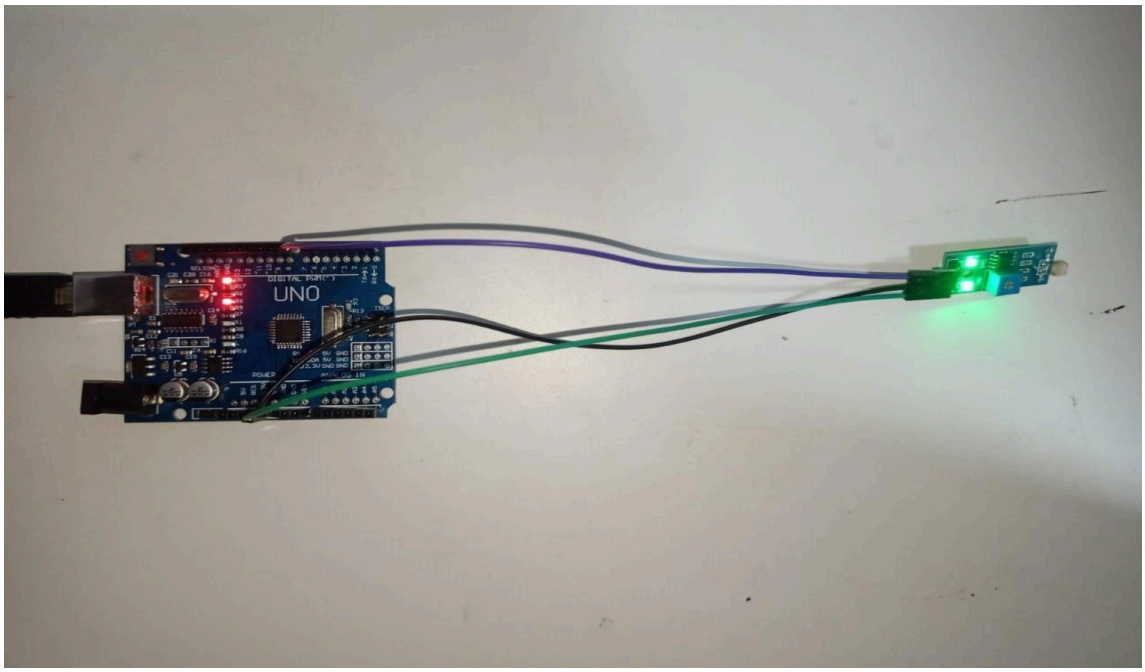


PROGRAM:

```
int ldr = 7;
int x;
int led = 13;

void setup()
{
  Serial.begin(9600);
  pinMode(7, INPUT);
  pinMode(13, OUTPUT);
}

void loop()
{
  x = digitalRead(7);
  Serial.println(x);

  if(x == HIGH)
  {
    digitalWrite(13, HIGH);
  }
  if(x == LOW)
  {
    digitalWrite(13, LOW);
  }
```

}

OUTPUT:



RESULT:

Thus, the above program to simulate Ldr sensor using Arduino UNO board and Proteus 8 was executed and the output verified successfully.