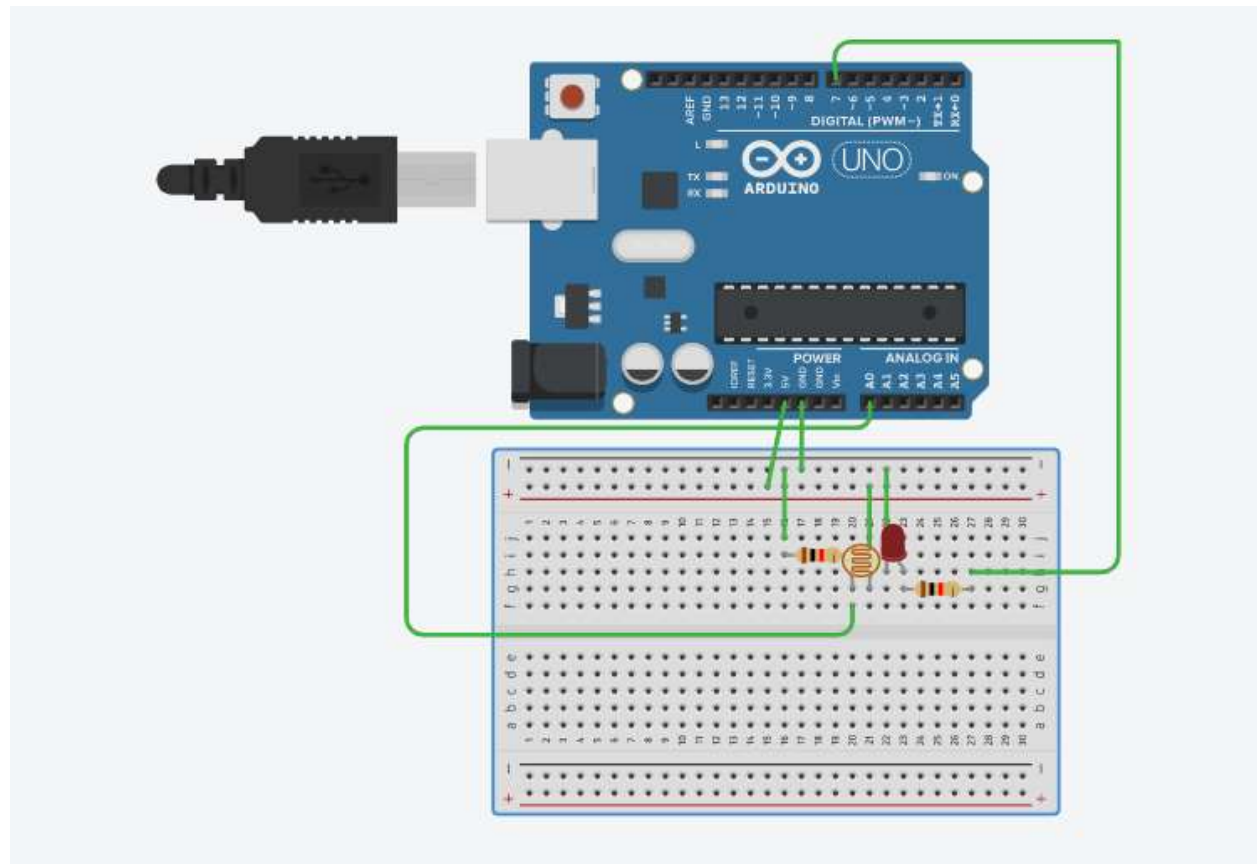# EXP 5-Design an automatic night lamp.

CIRCUIT DIAGRAM

THEORY

CONCEPT USED:

1. Making connection in BREADBOARD.
2. Coding of micro-controller in ARDUINO UNO.
3. Working of LEDs.
4. Working of Photoresistor(LDR).

LEARNING AND OBSERVATIONS:

In the experiment we learned

- Breadboard and its wiring.
- Coding in ARDUINO.
- If the intensity of light decreases then the resistance value of LDR increases and the output voltage also increases.

My Observations were:

- Coding syntax is similar to C language.
- Change in resistance value of LDR with change in light intensity

PROBLEMS AND TROUBLESHOOTING:

- To check whether correct port and type of ARDUINO is selected or not.
- Declaring correct input/output pins.
- LDR should be connected to analog pin and not to digital pin.

PRECAUTIONS:

- Check loose connections.
- Check that the negative terminal of LED should be connected to ground to ensure potential difference.

LEARNING OUTCOMES:

Got a slight idea of using ARDUINO UNO and LDR in different devices.