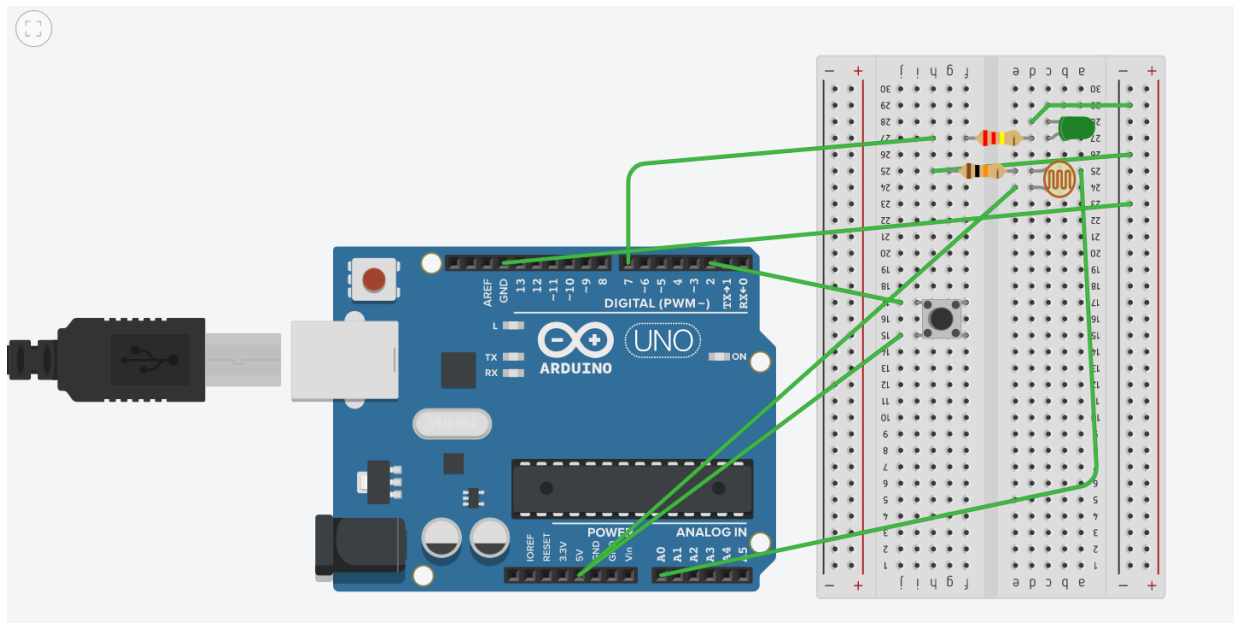# PROJECT REPORT OF BEEE LAB

QUSTION

Design an automatic night lighting system such the system is only activated when the master control switch is pressed. a) Below 300 lux led glows with full brightness. b) Above 300 lux led glows with 50% brightness.

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STREAM: - CSE G&G

Circuit diagram:

Theory:

CONCEPT USED:

I. By using Kirchhoff's Law.

II. Combination of LEDs in parallel circuit.

III. By using Kirchhoff's Current Law.

IV. Using LUX.

V. Logic code for Arduino UNO, using Loop Statement.

Hardware Required

Arduino

Breadboard

Light Emitting Diode (LED)

Sensor

LEARNING:

I. The Arduino board has ~ sign in Digital pin side which is also known as Pulse Width Modulation (PWM).

II. Learn about LUX

III. How to control Arduino and its coding.

IV. We learnt about LEDs parallel combination. V. We learnt about the loop in Arduino Uno. VI.

OBSERVATIONS:

I. The Arduino board can provide a supply of 5V to the chaser circuit.

II. when we move the value of delay one line up or down it change the whole pattern of the We observe chaser.

III. If we don't use delay in our code at specific points, we get a continues pattern.

IV. Very little modification can create a new unexpected pattern.

PROBLEMS & TROUBLESHOOTING:

I. I not to known LUX.

II. How to control brightness in led.

III. I encountered the problem in my code wasn't working as expected. So, I re-examined the code and corrected.

IV. To select the right port and type of Arduino.

V. To check the connections according to the codes.

VI. To check the flow of current in the circuit.

PRECAUTIONS:

I.   The connections on the Arduino board must coincide with the codes written on the software.

II.   During the writing of the codes, the insertion of delay should not be forgotten.

III. The connections on the Arduino board must coincide with the codes written on the software.

IV.   Do not connect Arduino till the circuit is complete.

V.   The two pins of the LED should be connected at their appropriate point i.e., the anode should be connected to the positive pin and the cathode should be connected to the ground.

LEARNING OUTCOMES:

I.   Automatic night lighting system such the system is only activated when the master control switch is pressed. a) Below 300 lux led glows with full brightness. b) Above 300 lux led glows with 50% brightness.

II.   LEDs glows in a chasing pattern.

III. Learnt to make circuits using breadboard, Arduino board and other equipment.

IV.   I have learnt that what are the elements of Arduino board and how they function.

V.   How to use multiple pins at the same time to give output.

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