



ELECTRICAL CIRCUITS -1 LAB (DC)

Laboratory Project Report

MOHAIMENUR RAHMAN

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Section: R



Title: Electrical circuit project using basic concept of DC.

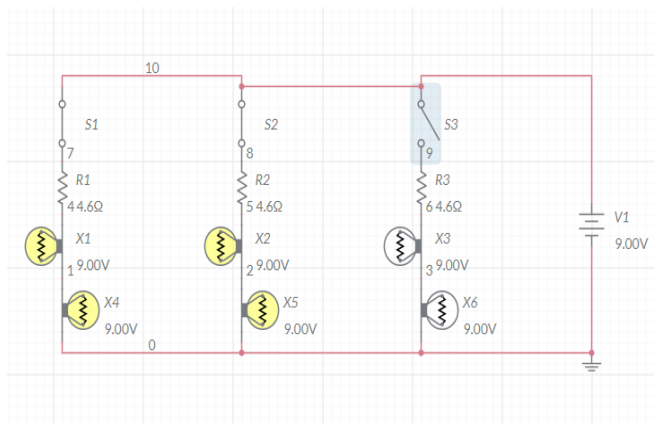
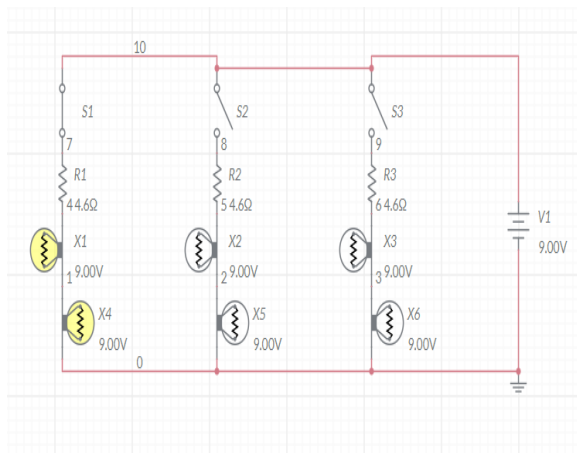
Abstract:

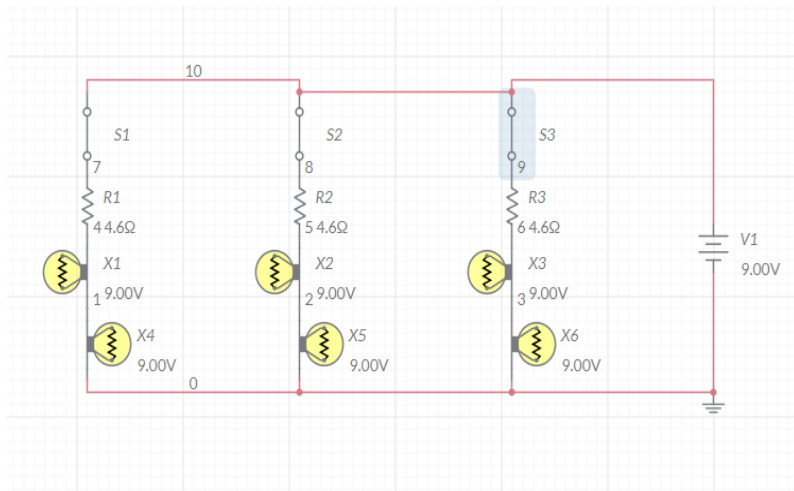
3 resistors for the circuit should be taken randomly and place them in parallel combination in the prototype maintaining the right terminal combination. For the circuit 3 resistors also be taken from which resistance will be measured. By placing the multimeter on the prototype circuit. Also 3 pairs of RGB bulbs connected in series with the resistor. Then current and voltage will be measured.

Methodology:

Connect the resistors and bulbs as shown in the diagram. Measure the voltage and current across each elements of the circuit.

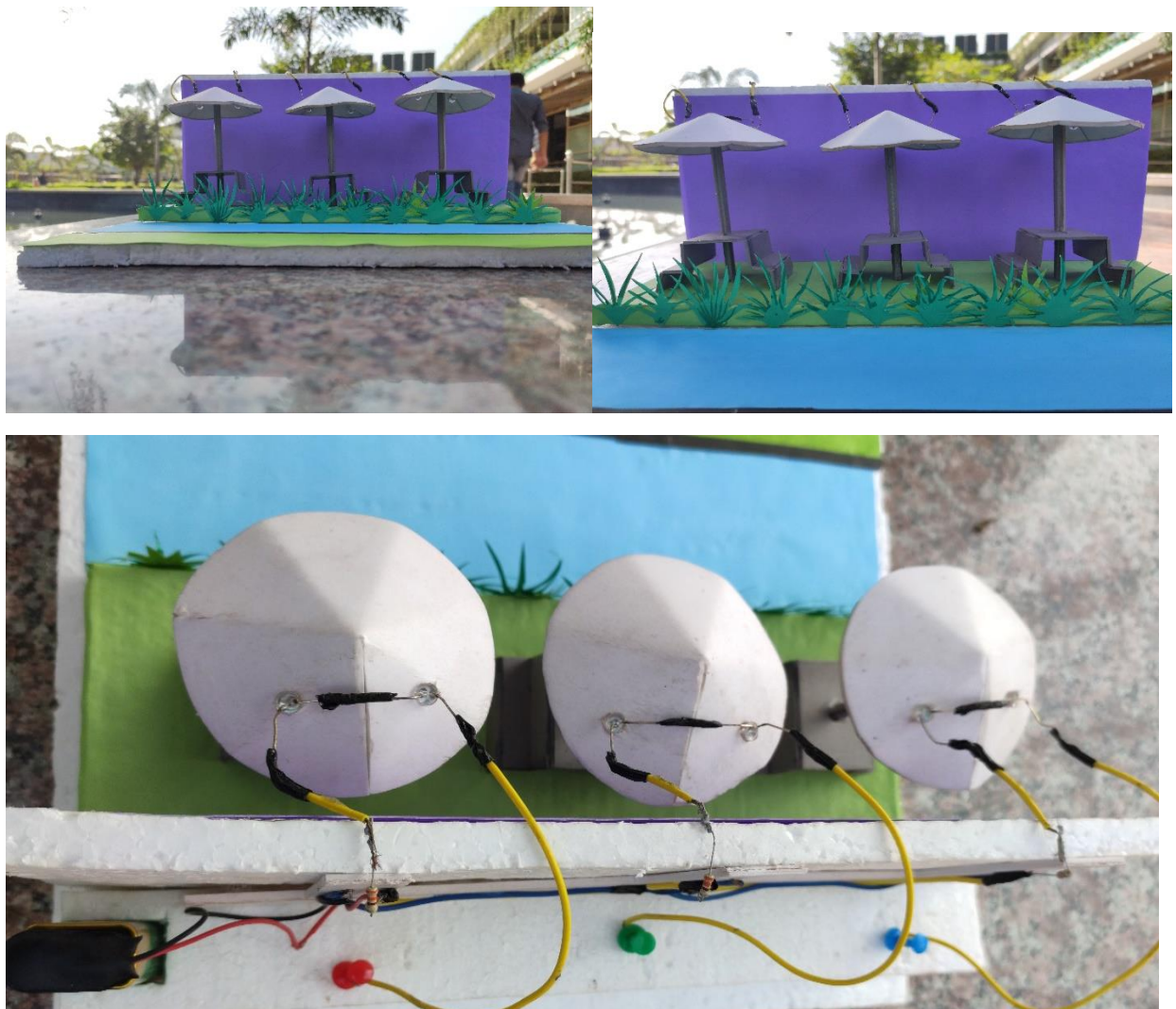
Background Diagram:

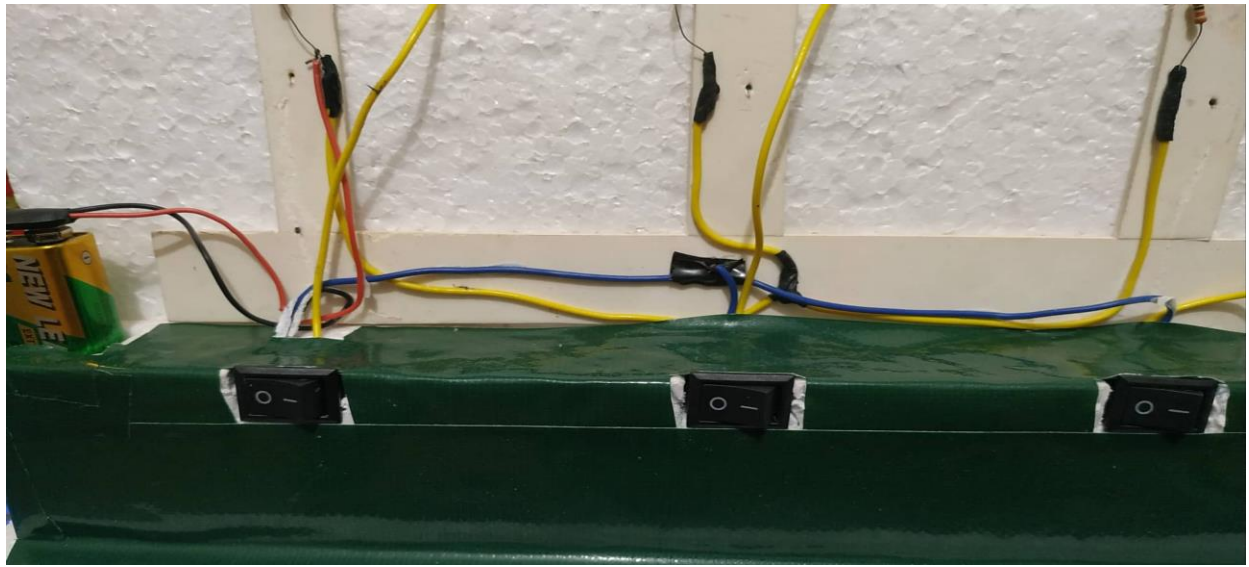




Apparatus: RGB Bulb, Resistors, Battery, Cable, Switch, Decoration equipment

Design Prototype:

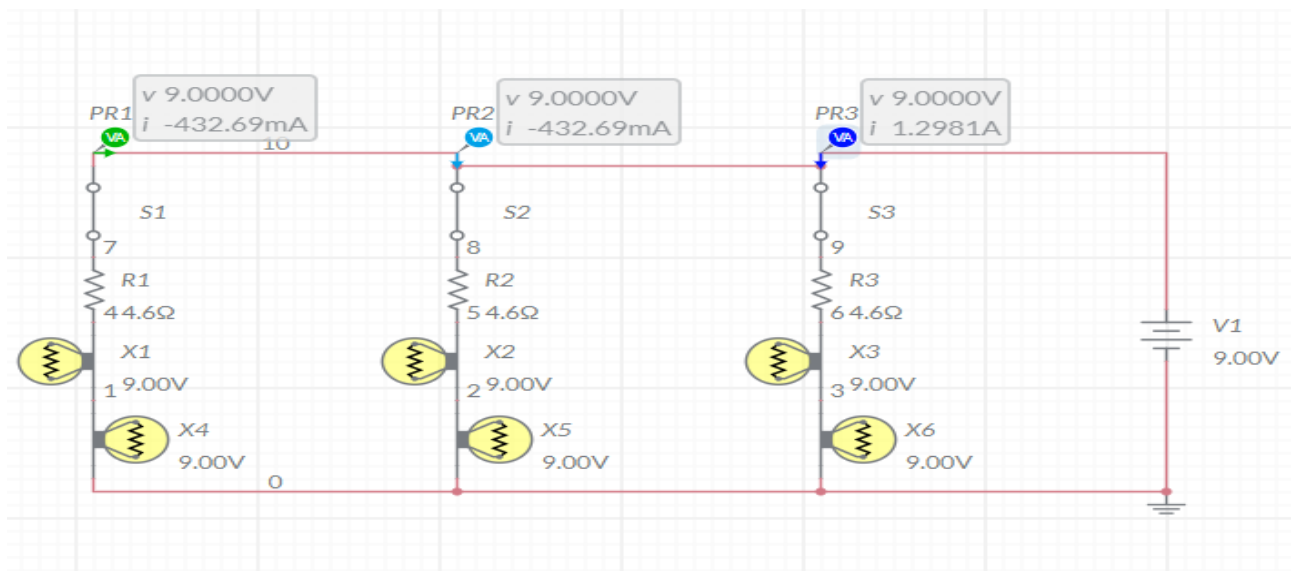




Result:

After turning on the switches the current flowed and the result is shown below. So, the target was full filled.





Discussion:

The resistors and bulbs were checked before the start of the experiment. The resistor was placed properly according to the diagram. The value of the voltage was increased gradually as applying a large voltage can damage the resistors. During the experiment some error was taken place. It was solved with the help of basic DC lab course experiences. Finally, all the data was calculated. By the simulation application, a result was obtained. Through this experiment the basic idea of DC terms and circuits was observed and verified with specific theory. Also, we can know how to measure the voltages and current using multimeter and simulation applications by this experiment. So, the experiment is successful.

Reference:

Robert L. Boylestad, " Introductory Circuit Analysis " , Pearson , Twelfth Edition ,pp#101-109 ,ISBN 978-81-317-6476-3.

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