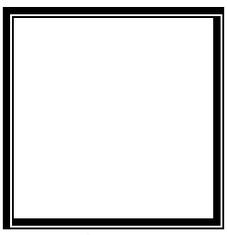
PAMANTASAN NG LUNGSOD NG MAYNILA
(University of the City of Manila)
Intramuros, Manila

Microprocessor Lab

Laboratory Activity No. 1
Familiarization with TinkerCAD



Score

Submitted by:
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<Saturday 1pm-4pm> / <CpE 412-2>

Date Submitted
16-09-2023

Submitted to:

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1. Exercise

a. A process in Tinkercad where we can develop electronic circuits that can be quickly updated, modified and tested is called **Prototyping**.

b. In Tinkercad, **Start/Stop Simulation** tests the working of the circuits and the components.

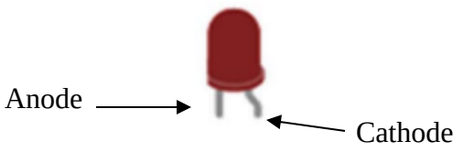
c. The device used to assemble and connect the various components is known as **breadboard**

d. In an electronic circuit with LED, the positive end of the circuit should be connected to **Anode** and negative end should be connected to **Cathode** of the LED.

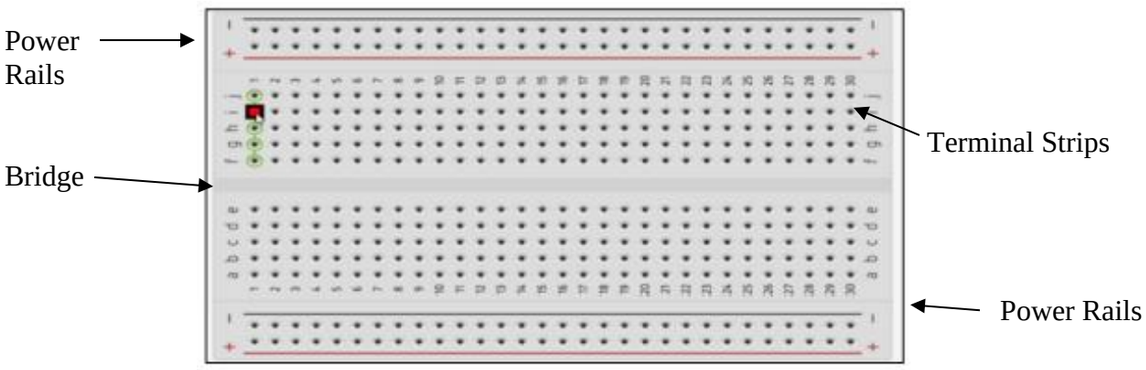
e. A **resistor** is used to restrict the flow of current to electrical components

2. Label the following:

a. Anode and Cathode in a LED



b. Different parts of breadboard



c. List the electronic components used in a circuit assembly

1. Resistors
2. Capacitors
3. Inductors
4. Diodes
5. Transistors
6. Integrated Circuits (ICs)
7. Microcontrollers
8. Voltage Regulators
9. Switches.
10. Relays
11. Transformers
12. LEDs
13. Sensors
14. Oscillators
15. Connectors
16. Printed Circuit Boards (PCBs)
17. Switching Power Supplies
18. Crystals
19. Potentiometers
20. Fuses

With Tinkercad, an online tool for designing and simulating electronic circuits, I received useful practical experience. We spent the entire session looking at the different options and resources Tinkercad provides for designing, tweaking, and testing electronic circuits.

We discovered that Tinkercad offers an interactive and user-friendly environment, making it usable for both novice and seasoned electronics enthusiasts. Tinkercad proved to be an effective and flexible tool for designing and simulating electronic circuits. It gives us the abilities and information necessary to efficiently design, alter, and test circuits in a virtual setting, laying the groundwork for further investigation and research in the area of electronics.