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:

Martino, Danielle Loi Y.

Sat 1:00 PM – 4:00 PM / CPE -412.1-2

Date Submitted

16-09-2023

Submitted to:

Engr. Maria Rizette H. Sayo

1. Exercise

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

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

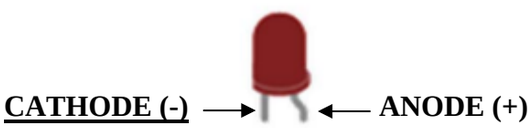
c. The device used to assemble and connect the various components is known as **breadboard.**

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.

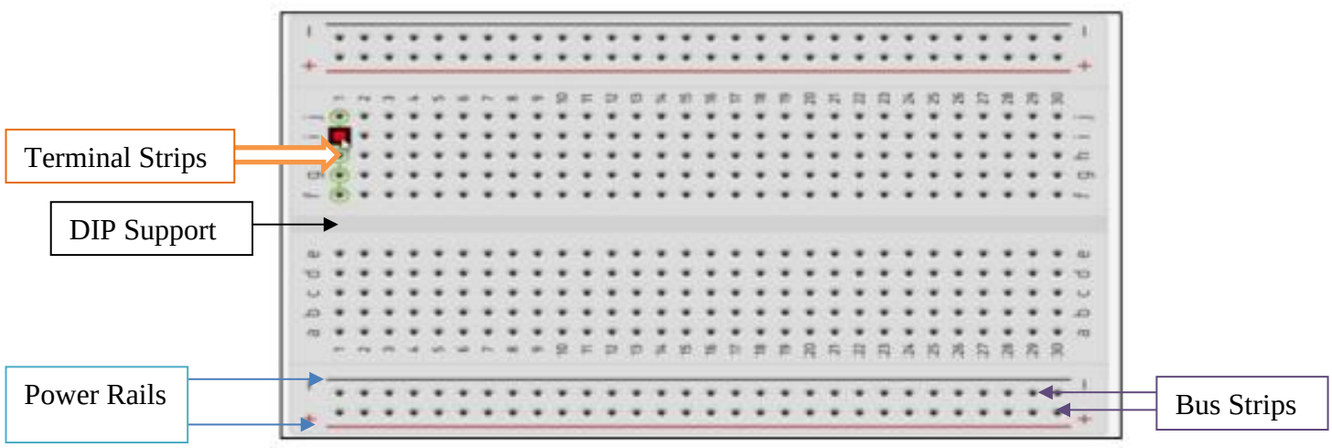
e. A **Resistor** is used to restrict the flow of current to electrical components.

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.

- LED
- Arduino Uno
- Resistor
- Breadboard
- Jumper wires
- Potentiometer
- Capacitor
- Switches
- Transistors

- Battery
- Fuse
- Diodes
- Integrated Circuits / IC

Conclusion:

Tinkercad is an online collection of software tools from Autodesk that enable complete beginners to create 3D models. This CAD software is based on constructive solid geometry (CSG), which allows users to create complex models by combining simpler objects together. In addition to their free 3D modeling tool, TinkerCAD offers extensive educational resources that caters to a variety of learning strategies. Hence, familiarizing the features and functions of Tinkercad makes it easy for the students to use it as their skills and the complexity of their designs also develop. Another benefit of Tinkercad is that it has now evolved to incorporate "circuits" functionality. Thus, allows students to design circuits, program micro-controllers and incorporate the electronics directly into their 3D designs.