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:
Mui, Marc Jefferson T.
Saturday 4PM-7PM / CpE 412-2

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**.

b. In Tinkercad, **simulation** tests the working of the circuits and the components.

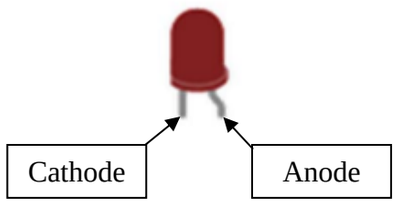
c. The device used to assemble and connect the various components is known as **breadboard**.

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.

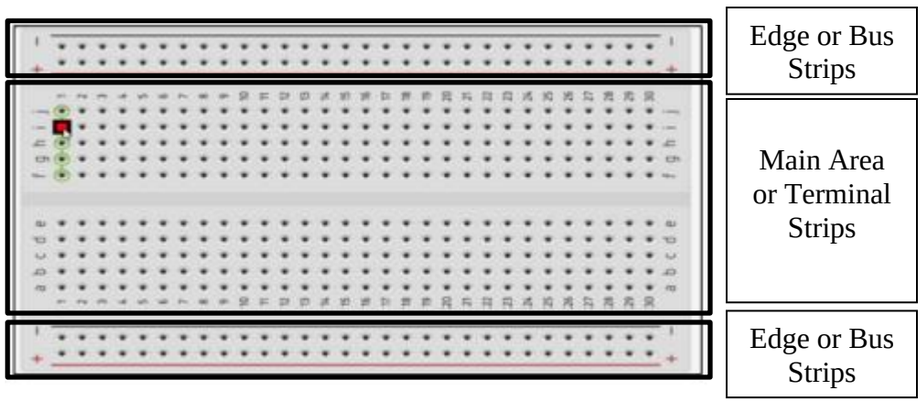
e. A **resistor** is used to restrict the flow of current to electrical components

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

- Battery – provides power to the circuit
- Resistor – is used to restrict the flow of current to electrical components
- Capacitor – stores electrical energy
- LED (Light Emitting Diode) – turns on light when electricity passes through
- Potentiometer – is used to adjust the voltage and control devices
- Switch – turns the circuit on/off and controls the flow of current in a circuit
- Diode – allows the current to flow in one direction
- Transistor – is used to amplify or switch electrical signals and power
- Inductor – stores energy in electric fields created by current that flows through coiled wire
- Sensor – responds to physical stimuli and produces an output electrical signal