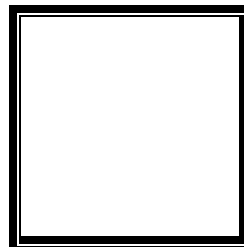




PAMANTASAN NG LUNGSOD NG MAYNILA
(University of the City of Manila)
Intramuros, Manila

Microprocessor Lab

Laboratory Activity No. 1
Familiarization with TinkerCAD



Score

Submitted by:
Termulo, Erica Rose C.
Saturday 10:00a-1:00p / CpE 0412.1-1

Date Submitted
16-09-2023

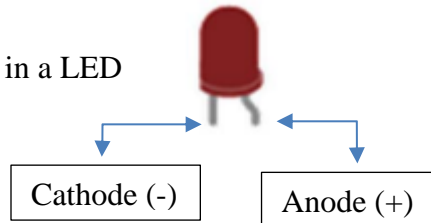
Submitted to:
Engr. Maria Rizette H. Sayo

1. Exercise

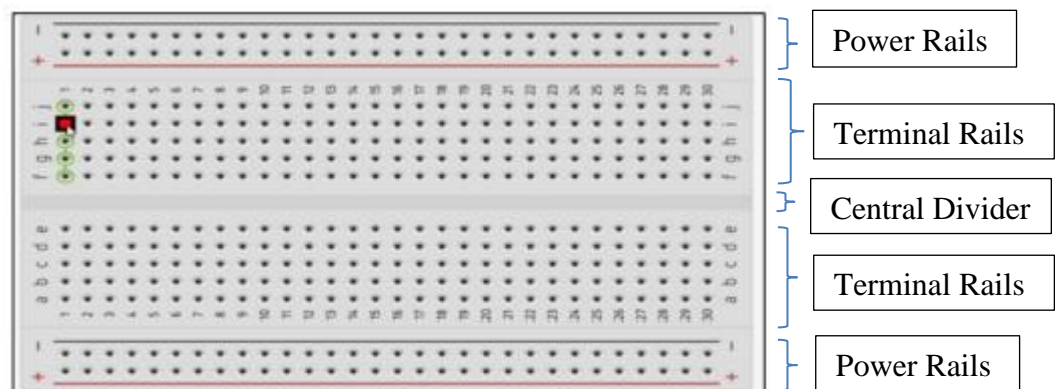
- A process in Tinkercad where we can develop electronic circuits that can be quickly updated, modified and tested is called prototyping.
- In Tinkercad, “start simulation” tests the working of the circuits and the components.
- The device used to assemble and connect the various components is known as breadboard.
- 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.
- A resistor is used to restrict the flow of current to electrical components

2. Label the following:

- Anode and Cathode in a LED



- Different parts of breadboard



- List the electronic components used in a circuit assembly
 - Resistors: Resistors resist the flow of current, and they are used to control the amount of current flowing through a circuit.
 - Capacitors: Capacitors store electrical energy, and they are used to filter signals, smooth out power supplies, and create timing circuits.
 - Inductors: Inductors store magnetic energy, and they are used to filter signals, create resonant circuits, and store energy.
 - Diodes: Diodes allow current to flow in one direction only, and they are used to protect circuits from reverse voltage, rectify AC signals, and create logic gates.
 - Transistors: Transistors amplify and switch signals, and they are used in a wide variety of electronic circuits, including amplifiers, logic gates, and microcontrollers.
 - Integrated circuits (ICs): ICs are miniature electronic circuits that are made up of millions or billions of transistors. ICs are used in a wide variety of electronic devices, including computers, smartphones, and TVs.
 - LEDs: LEDs emit light when current flows through them, and they are used in a variety of applications, including indicator lights, displays, and traffic signals.
 - Switches: Switches control the flow of current in a circuit, and they are used to turn devices on and off.
 - Fuses: Fuses protect circuits from overcurrent, and they are used to prevent damage to electronic components.
 - Connectors: Connectors are used to connect different components in a circuit together.