#TaSK 1

Aspiring electronics enthusiasts, your opportunity to exhibit your creativity is here! Join MaRS Club's Electronics Team and ignite your passion for circuits. Let's dive into the electrifying world of Arduino and Tinkercad!

For Task 1, let's simulate circuits using Tinkercad. **In each project, incorporate at least two sensors from the list below**:

1. Gas Sensor
2. Temperature Sensor
3. Tilt Sensor
4. Soil Sensor
5. PIR Sensor
6. Ultrasonic Sensor
7. IR Sensor
8. Force Sensor
9. Flex Sensor
10. Ambient Light Sensor
11. Photodiode
12. Photoresistor
13. Slide Switch
14. Potentiometer
15. Push Button

Think outside the box! **Creativity with inputs and outputs** (explore beyond LEDs) **will earn you extra points.**

But that's not all! We want you to take it a step further. Record a video of each simulation, showcasing your circuit in action. Additionally, **document** your entire thought process, including your code, in a **GitHub repository** and share the link with us. This will give us a glimpse into your innovative thinking and problem-solving skills.

Submit a **minimum of three projects** by Friday, April 4th, 2025, midnight, following which there will be an **individual discussion about your projects** (So, original work is imperative).

To get started, we recommend watching the following video playlists about Arduino, Tinkercad and GitHub:

Arduino Basics: arduino basic playlist - YouTube

Tinkercad Circuit Simulations: How to Interface an Ultrasonic Sensor with Arduino using TinkerCAD || Ultrasonic Sensor Code ||

Documentation in GitHub: How to upload files/folders/projects on github | Upload Project folder on github (Simple Way)