Design your own Voltage Sensor

Welcome to the first task in Basic Electronic Circuit Design and Arduino Programming. To be here means you are interested in learning about this vast and interconnected field. This task is to help us understand your understanding and learning capabilities. Please remember throughout the process that if you face any issues during the process, feel free to approach us at any time through the discord server.

Task description:

Design a circuit on TinkerCAD to measure voltage **up to 30V** provided by a power supply. Use **Arduino UNO microcontroller** to read and display the voltage on Serial Monitor.

NOTE: Please do not use block programming on TinkerCAD. Familiarize yourself with C programming on Arduino.

Learning outcoming:

- Design of basic electrical circuits
- Basic Arduino Interfacing (programming and pin layout)
- Serial Communication in Arduino

Getting started:

Start out by analyzing the basic requirements of the circuit and understanding the working of Arduino Analog Read function. We encourage you to do a hardware circuit if you have the required hardware available in hand. Feel free to use internet resources to look for solutions and brainstorm ideas. Any doubts or clarifications regarding the task can be clarified on the team recruitment discord.

Resources:
https://youtube.com/playlist?list=PLGs0VKk2DiYw-L-RibttcvK-WBZm8WLEP