

# TASK 0

## EMBEDDED AND ELECTRONICS



### PROBLEM STATEMENT:

For a science fair submission next day , you plan to pull out an all nighter. But as soon as you start working your Multimeter malfunctions (things don't work when you want them) So use your embedded skills and design a Multimeter to debug your project .

### GUIDELINES:

- Build a module to switch between
  - Resistance
  - Capacitance
  - Ammeter
  - Voltmeter
- Strictly use embedded coding

### EVALUATION METRICS:

- Technique of calculating the parameters of multimeter
- Fabrication of module

- Working video

### COMPONENTS REQUIRED:

- Use MCU
- Soldering Kit
- Basic electronic components (Jumpers,headers,resistors etc)

### SUBMISSION:

- Code
- Video which clearly shows the working for all the test cases in the guidelines section.
- The design of the module

### SUBMISSION GUIDLINES:

- All the codes necessary for executing the program to be kept in a folder ( including the library files )
- Take a proper working video and upload in youtube under unlisted section and get the link of it
- Take a photo of the module and then save all in a common folder
- Name of the folder should be rollno\_domain\_subdomain\_taskname
- Compress the file in zip format and then upload the folder in a drive and get the share able link of the folder and upload in the portal

### RESOURCES:

- Workshop ppt's
- [https://www.electronics-tutorials.ws/rc/rc\\_1.html](https://www.electronics-tutorials.ws/rc/rc_1.html)
- <https://www.elprocus.com/potentiometer-construction-working-and-applications/>
- <https://www.makerspaces.com/how-to-solder/>

