

## CALC

**“I can't read a computer screen and never use a calculator. It's all in my head and by hand.”**

### **INTRODUCTION:**

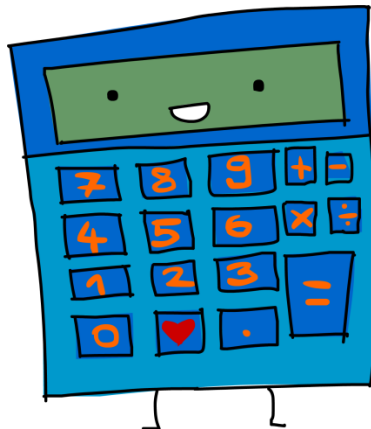
Have you ever imagined your world without calculator these days? In 21<sup>st</sup> century calculators are used for making mathematical calculations, in particular a small electronic device with a keyboard and a visual display. In this event you have to design the calculator in little different manner. Just code!!! for “true and false” and use it for your engineering accuracy.

### **PROBLEM STATEMENT:**

Team must design a micro-controller based “detective calculator” which will evaluate the given calculation and display whether it is correct or wrong.

### **Example:**

- If we give “7+7=14” as the input it should display "True"
- If we give “7\*7=40” as the input it should display "False"



### **Details:**

It should display the correct answer after pressing the ‘display answer’ button. Add your own innovative idea’s to the design, to make it more interactive with the user. Don’t concentrate much on aesthetic design. Here the link of demo video-click here

(<https://www.youtube.com/watch?v=L18ZbeiDBw0&feature=youtu.be>)

### **Design Rules:**

- Use only 8-bit Micro-controllers.
- It should at least evaluate the basic mathematical operations like subtraction, multiplication, division, and addition.
- There is no restriction for the keyboard and the display panel.

### **General Rules:**

- Organizers’ decision shall be treated as final and binding on all. The organizers reserve the right to change any or all of the above rules as they deem fit.
- Change in rules, if any, will be highlighted on the website and notified to the registered participants.
- Organizers reserve the right to disqualify any team indulging in misbehavior or violating any rules. In case of any disputes/discrepancies, the organizer's decision will be final and binding.
- Note that at any point of time, the latest information will be that which is on the website. The information provided in the pdf downloaded earlier may not be the latest. However, registered participants will be informed through mail about any such change.

### **Judging Criteria:**

- 10 Points will be awarded for each mathematical operation computed.
- 20 Points will be awarded for each creative application like; if we give “1, 1, 2, 3, 5, 8” as input, it should display the next number in the series (here the series is Fibonacci) i.e, 13, avoid errors or wrong expressions.
- 40 Points will be awarded for each innovative idea implemented in the design.

Example: - Can include speakers to play ‘beep’ sound when the given calculation is wrong or else.

- Calculator failed to evaluate whether given expression is correct or wrong will disqualified.

### Team Size:

Maximum two participants in a team

### Eligibility Criteria:

- All students with a valid Registration Card of DEXTRA 2014 along with their respective educational institutes' Id card are eligible to participate.
- Non-JUET participants must possess an Accommodation Confirmation Letter (ACL) issued by the organizing body at the time of registration. **Registration Card will not be issued without ACL**

### Event Manager:

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