

## CID CALCULATOR

### Task

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.

### Design Rules

- Use only Atmega 32A Micro-controller.
- 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.
- 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.

## Team

A team can have maximum of three members. Students from different educational institutes can form a team.

## Eligibility Criteria

All students with a valid Identity Card of their respective educational institutes are eligible to participate.

## Certificate Policy

- Certificate of Excellence will be awarded to the top 3 teams.
- Certificate of Participation will be given to all participating teams.
- Disqualified teams will not be considered for any certificates.

## Contact Details

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