

# **The Circuit Soldering Challenge**

## **2.1 Competition Overview:**

PROCOM'24 presents the The Circuit Soldering Challenge to show your talent and capabilities in Designing and Debugging Skills and to test your soldering skills and enhance it. If you love to play with electronics, then we provide you a chance to show us your level of skills and expertise.

## **2.2 Members per Team:**

1 to 3 members per Team.

## **2.3 Rules:**

- 2.3.1 Minimum 1 and maximum 3 members are allowed on each team and it will be a 2-days competition.
- 2.3.2 Candidates must appear at the competition room at least twenty minutes before the commencement of the competition.
- 2.3.3 Candidates must check their computer (Mouse, Keyboard) before starting the competition.
- 2.3.4 Latecomers will not be given extra time.
- 2.3.5 Current university, college or institution cards are necessary.
- 2.3.6 Competition head has the right to disqualify any team in any harm case.
- 2.3.7 Calculators will not be provided; so, bring your own calculators.
- 2.3.8 Any material/document is not allowed in any format.
- 2.3.9 Judges will analyze performance. The verdict will be final and unobjectionable.
- 2.3.10 Use of any illegal resource during competition (e.g. USB, mobile, Internet etc.) will cause the elimination of that team.
- 2.3.11 Only registered candidates will be allowed.
- 2.3.12 Keep saving your task during competition. No extra time will be provided in case of light off or PC shut down for any reason.
- 2.3.13 If the PC gets hanged due to any reason. Inform the invigilating team instantly.
- 2.3.14 Ensure yourself that Multisim and Proteus software is correctly installed and working well before starting the competition. No excuses will be entertained during competition.
- 2.3.15 Mobile phones should be switched off during the competition.
- 2.3.16 Candidates must not communicate or disturb other teams during the competition.
- 2.3.17 Candidates may not leave competition while the competition is in progress due to any reason.

## **2.4 Winning Criteria:**

- 2.4.1 Winner will be chosen on the basis of a three round performance.
- 2.4.2 Shortest time will be taken
- 2.4.3 circuits will be judged on the bases of Logic and implementation, Time consumed in making the circuit, Circuit complexity, stability & Working condition of the circuit
- 2.4.4 For tie-in Any Round Previous round, scores will be considered

## **2.5 Requirement:**

All the basic stationary (rough sheet, pencil, pen) and one computer per team, power supply, and breadboard, Soldering iron, solder, electronic components, and Vero board etc. will be provided for designing. The calculator will NOT be provided.

## **2.6 Rounds:**

### **a) Round 1: Debugging**

The first round will be the Debugging round. You will be provided a sheet having 2 circuits on it OR you may have to debug a circuit on a software (Multisim or Proteus). You have to complete this round in 45-60 minutes. After this round, 30% teams will be eliminated depending upon scores.

### **b) Round 2: Soldering of Discrete Components**

For the second round you will be given 30 minutes in which you have to solder discrete components, the schematic will be given on which you'll have to solder them. After this round, 50% teams will be eliminated depending upon scores obtained in both 1st and 2<sup>nd</sup> round.

### **c) Final Round: Debugging & Implementation**

The third round will be a circuit Debugging & implementation round. In this round, You will be given 45-60 minutes in which you have to Debug the circuit and Implement it. Either connections are missing or maybe wrongly placed in the schematic you first have to debug then solder the circuit.