



# PCB Mastery Challenge: Official Rule Book

This competition is open to all university students.

## 1) Introduction:

The PCB Design Competition challenges participants to create a functional, efficient, and manufacturable printed circuit board (PCB) design within a specified time frame. Participants will receive a circuit diagram with labeled components and will be tasked with preparing a schematic diagram and then transforming that schematic into a PCB layout. The competition encourages participants to showcase their skills in PCB design, component placement, and routing techniques.

## 2) General Rules:

- Each participating team may consist of upto 3 members.
- If the students from different Institutes/Universities want to join hands and form a team in collaboration, they can do so.
- Participants are expected to bring their own laptops with the necessary simulation software pre-installed.
- No team member will be added further once the registration is done.
- If you want to register for the competition you must need to fill the form on website.
- Disqualification will be made on the spot, if any of the team members are found arguing (using slang/physical contact) with the organizing team or the member of another team.
- Organizing team have the right to amend the competition rules/duration at any time.
- The panel of judges for each competition will be comprised of members from the relevant fields and past experiences in competitions.
- The decision of judges will be final.
- If you win a competition, we will notify you at the end of the whole event.
- The prize will not be transferable to another team.
- No part of a prize is exchangeable for cash or any other prize.
- Incorrectly completed entries will be disqualified.



### 3) Game Rules:

- Each round will last a maximum of 1 hour.
- Participants will be provided with a circuit diagram (picture) with labeled components.
- Participants must first prepare a schematic diagram using the given circuit diagram.
- All component footprints will be available through pre-installed libraries in the software. No need to create or import custom footprints.
- After completing the schematic, participants will transform it into a PCB layout, ensuring proper component placement and routing of connections.
- Only the specified PCB design software including Easy EDA, Altium, OrCAD, Allegro, KiCAD and Eagle are allowed having readily available component libraries.
- Teams must adhere to the provided board dimensions, layer limits, and component lists.
- Teams must submit all required files (Schematic, PCB layout, Gerber files) in the prescribed format.
- Designs will be evaluated on the basis of design accuracy, efficiency, component placement and routing quality.

### 4) Important Dates

- **Competition Dates:** October 12-13, 2024

### 5) Collaborative Partner

This competition will be hosted in collaboration with RoboAutomators.

### 6) Contact Information

For any questions or additional information, please contact us at:

- **Email:** [contact@teknofestpakistan.com](mailto:contact@teknofestpakistan.com)
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