



IEEE WEEK '25

INNOVATE. ELEVATE. DOMINATE

RULEBOOK

7th & 8th April, 2025
📍 FAST NU, Lahore

Speed Wiring

Description

Enter the thrilling world of Speed Wiring! Here, precision and agility take center stage as you embark on an exciting challenge that tests both skill and efficiency. With nimble hands and sharp focus, participants work at high speed to assemble circuits flawlessly, ensuring every connection is perfectly placed. You'll be given the challenge of creating intricate wiring setups with both accuracy and speed, where every wire matters, and mastering the craft of rapid circuit assembly is the ultimate goal.

General Rules

- Each team can have up to 3 members.
- You will be given one or more circuits to assemble, and your goal is to complete them in the least amount of time.

Winning Criteria

- Both speed and precision will be evaluated when assessing the program.
- The organizers reserve the right to modify any rule at any point before the competition.
- All guidelines will be reviewed with team leaders before the event begins.
- The judges' decision will be final, and no alterations will be made once it has been announced.

100 Minute Speed Programming

Description

Race Against Time: The Ultimate Coding Showdown!

Welcome to the Speed Coding Challenge! Do you have what it takes to turn raw logic into lightning-fast solutions?

In this electrifying competition, your keystrokes will paint digital masterpieces, and every line of code will pulse with innovation.

Push your limits, think on your feet, and embrace the thrill of crafting sleek, efficient solutions—because in this arena, every second counts!

General Rules

- A team can have up to 3 members.
- You will be given one or more coding tasks to complete in the least amount of time.
- Participants are free to use any programming language of their choice.

Winning Criteria

- Both execution speed and precision will be taken into account during program evaluation.
- Organizers hold the authority to modify any rule at any point before the competition begins.
- All regulations will be communicated to team leaders before the event starts.
- The judges' verdict will be final, and no revisions will be allowed once the decision is announced.

Battle Bots

Description

Enter the Ultimate Battle Bots Arena!

Witness the clash of cutting-edge machines as battle-hardened bots face off in a relentless fight for dominance. With precision, power, and strategy, these robotic warriors will unleash their full potential to outmaneuver, outsmart, and overpower their rivals.

This is not just a battle—it's a test of engineering brilliance and combat mastery. Prepare for an adrenaline-charged showdown where only the strongest, smartest, and fastest bots will emerge victorious!

Categories

We bring you two categories:

- Light-Weight
- Heavy-Weight

Light-Weight-Mini Battle Bots

Team Size

Each team can have 3 team members.

General Rules

- Two robots will enter the arena simultaneously.
- The judges may stop any robot at any time during the match if they feel that any maneuver that the robot is going to perform is dangerous to the people and environment.

- All circuitry must be designed by the contestants themselves.
- The contestant should put in the maximum effort in both design and fabrication themselves.
- The dimensions of your robot chassis should not exceed 12" x 12".
- A microcontroller is required; failure to use one will result in disqualification.
- Your robot must not exceed 5kg in weight (excess weight will result in disqualification).
- Any battery can be used, but it must not exceed 24V.
- If your robot leaves the arena, whether due to mis-control or an opponent's push, it will be eliminated from the competition.
- The decisions of the Contest Judging Committee will be final in interpreting the rules before and during the contest and in any issues not covered by these rules.
- Participants are not permitted to touch their robots during the match.

Permitted Weaponry

Weapons with edges, spikes, and all types of hammers are allowed. Examples include:

- Rammer.
- Spinner.
- Wedge.
- Full-body spinner.

Prohibited Weaponry

The following are strictly banned:

- Pyrotechnics, explosives, flames, and firearms.
- Corrosives, liquids, and inflammable or combustion-supporting gases.
- Electronic devices such as radio jammers, heat guns, and Tesla coils.

Disqualification

The referee may consider the following behaviors for disqualification, potentially leading to the team's removal from the contest:

- Attempting to damage the game field.
- Engaging in actions that violate the spirit of fair play.

Rules and Regulations

The judges have the authority to disqualify any team based on disciplinary grounds.

In all matters concerning rule interpretation before and during the contest, as well as any issues not explicitly covered by these rules, the decisions of the judging committee will be final.

Winning Criteria

- The competition will consist of multiple rounds, depending on the number of participating teams.
- The robot that emerges victorious in the final round will be declared the winner.
- The judges' decision will be final, and no changes will be made after the announcement.

Heavy-Weight-Battle Bots

Team Size

Each team can have 3 team members.

General Rules

- Two robots will enter the arena simultaneously.
- All circuitry must be designed by the contestants themselves.
- The contestant should put in the maximum effort in both design and fabrication themselves.
- The judges may stop any robot at any time during the match if they feel that any maneuver that the robot is going to perform is dangerous to the people and environment.
- The dimensions of your robot chassis should not exceed 3×3 feet
- A microcontroller is required; failure to use one will result in disqualification.
- Your robot must not exceed 60kg in weight (excess weight will result in disqualification).
- Any battery can be used, but it must not exceed 36V.
- If your robot leaves the arena, whether due to mis-control or an opponent's push, it will be eliminated from the competition.
- The decisions of the Contest Judging Committee will be final in interpreting the rules before and during the contest and in any issues not covered by these rules.
- Participants are not permitted to touch their robots during the match.

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Examples include:

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Line Following Robot

Description

Navigating the Future: The Exciting Realm of Line Following Robots
Step into the world of autonomous robotics, where cutting-edge machines navigate with accuracy, revolutionizing modern technology.

Experience an engaging exploration as robots, powered by advanced sensors and intelligence, seamlessly track paths, driving the future of automation forward.

Dimensions

The chassis of your robot must not exceed 8" × 8" in size, and all robots are required to pass inspection before competing.

Team Size

- A microcontroller must be used.
- Any IR sensors can be used.
- Any base is allowed.
- Any RPM motors can be used.
- Any battery can be used, but it must not exceed 12V.
- Organizers reserve the right to amend rules before the competition.
- All rules will be discussed with team leaders prior to the event.

Course Time

Time is measured from crossing the start line until the robot crosses the finish line. A robot is deemed to have crossed the line when the forward most part of the robot contacts or crosses over the line.

The robot will have maximum 5 minutes to complete the task. During a retry, the layout of the arena shall remain the same

Time Keeping

Time shall be measured by an electronic gate system or by a judge with a stopwatch, based on the availability of equipment. In either case the recorded time shall be final.

Autonomous Control

Once a robot has crossed the starting line it must remain fully autonomous, or it will be disqualified.

Arena Edges

A robot that wanders off the arena surface losses 2 Marks and will be given Maximum 3 tries, but each try will result in deduction of 5 Marks.

Arena Size

The track is a 6×4 feet rectangular surface with a 1.5-inch-wide black line on a white background.

Robo Soccer

Description

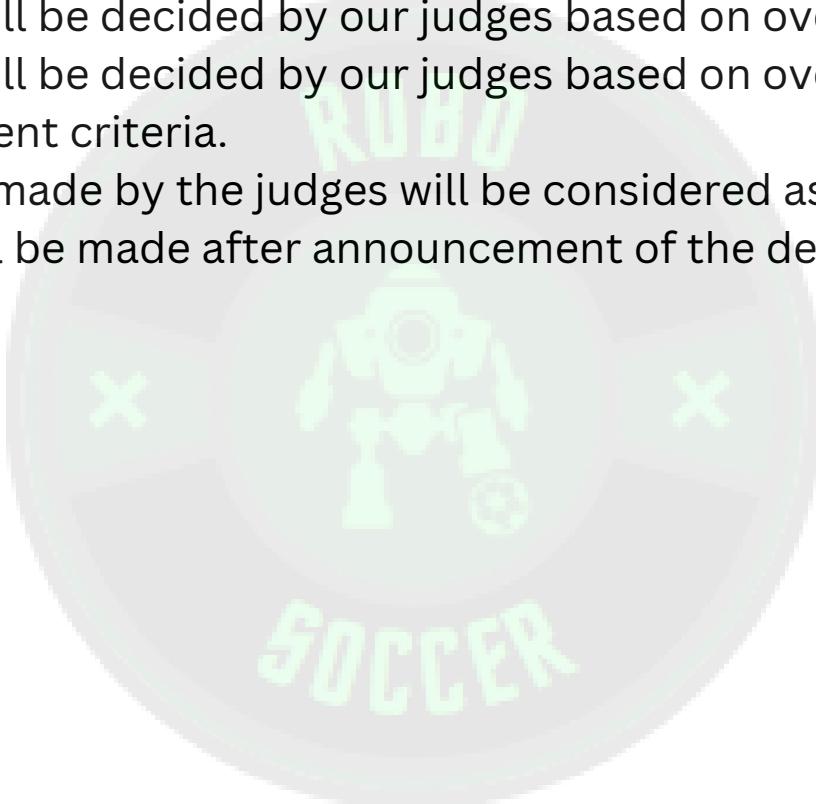
Kickstarting Tomorrow: Where Code Meets the Game in Robo Soccer. Enter a world where technology and sports collide, as robots display agility, strategy, and precision on the field. Witness the fusion of AI and robotics, transforming the beautiful game into a thrilling spectacle of innovation and skill.

General Rules

- Maximum 3 members in one team.
- There will be a 1v1 futsal competition.
- You must use a microcontroller.
- Any type of wireless transmitter can be used.
- Any base/chassis can be used (any material).
- The dimensions of the robot (from tire to tire) should not exceed more than 10"x10"(with cage).
- Any motor shield can be used & Any RPM motors can be used.
- You can use any material for the bumper.
- You can make any shape but it should not exceed the specified dimensions.
- You can use any battery (Not more than 12 v).
- Pushing the opponent robot is not allowed.
- You are not allowed to touch the robot during the competition.
- Time will be provided to choose the team-mate.
- The size of the arena is 6"x4".

Winning Criteria

- You have to push the ball in your respective goal to achieve the points.
- The team with the highest score wins.
- Negative marking can be considered if your robot damages the other robot.
- Winner will be decided by our judges based on overall performance.
- Winner will be decided by our judges based on overall performance and judgment criteria.
- Decision made by the judges will be considered as final and no change will be made after announcement of the decision



Drone Competition

Description

Soar to new heights in the Drone Competition! This event puts your piloting precision and aerial agility to the test through challenging obstacle courses and timed flights. Competitors will navigate drones or RC planes through various setups, demonstrating control and speed in a race against the clock. Whether you're a novice or a seasoned flyer, this competition is designed to push your drone-handling skills to the limit.

Categories

- Quadcopter (Drone) Category
- RC Plane Category

Both categories follow similar general rules but have distinct flight challenges.

General Rules

- Each team can have up to three members. A non-member pilot is allowed.
- Open to students and professionals of all age groups.
- Pilots must be experienced, and aircraft must have been tested before the event.
- Aircraft must be scratch-built—factory-assembled models are not allowed.
- Safety is a priority: failure to meet safety standards will lead to disqualification.

Quadcopter (Drone) Category

Quadcopter Requirements:

- Allowed frames: 'True-X', 'Hybrid-X', 'Stretched-X', 'Square', or 'H', propelled by four motors.
- Frame materials: Carbon fiber, glass fiber, aluminum, wood, or plastic.
- Maximum frame size: 450mm
- Battery: Zor 4 or 6 Cell 1p 3400mAh LiPo (must be securely attached).
- Off-the-shelf FPV goggles are allowed.
- No parts should detach mid-flight.

Quadcopter Ground Rules:

- Only the pilot and one team member may enter the obstacle course.
- Drones must remain unarmed on the ground, with batteries disconnected.
- FPV pilots must have a team member present.
- If video signal is lost, pilots must immediately reduce throttle to zero.

Quadcopter Competition Rounds:

- **Round 1: Stability Test**

Maintain stable hover at a specific altitude.

No tilting, rolling, or unnecessary movement.

Smooth, controlled landings on checkpoints.

- **Round 2: Obstacle Course**

Complete three laps through a custom-designed course.

Navigate hurdles such as loops, bars, and poles.

Complete the challenge within the designated time.



RC Plane Category

RC Plane Requirements:

- Must be scratch-built—factory-built planes are not allowed.
- Must be electric-powered with an off-the-shelf electric motor.
- Allowed batteries: NiCad/NiMH or LiPo (only one type per aircraft).
- Planes must have full-range receivers with diversity antennas.
- No objects may be dropped from the aircraft during flight.

RC Plane Ground Rules:

- Pilots must take off within 50-60 feet.
- Aircraft must stay within visual range and within altitude limits (200ft).
- Successful landing is required for scoring.

RC Plane Competition Rounds:

- **Round 1: Endurance & Speed**

Take off and complete maximum laps within 2 minutes.

Each lap counts when the plane crosses the start/finish line.

Planes must land successfully to earn points.

- **Round 2: Aerobatics Challenge**

Perform a 360° vertical loop.

Execute at least one aileron roll (bonus points for more).

Additional maneuvers will be rewarded.

IEEE Week and the organizing team are not responsible for damages to aircraft during the event.

Immediate disqualification will be the result of any misconduct unsafe behavior.

or RC Planes and Drones may only be flown in designated areas.

E-Gaming

Description

Dive into the virtual arena with the E-Gaming Tournament. Gamers will compete in a variety of popular titles that may include first-person shooters, real-time strategy, and sports games. This competition is a battleground where strategy, skill, and quick reflexes will determine the ultimate gaming champions.

Games

- FIFA.
- Tekken 7.

FIFA

General Rules

- Knockout format.
- 4 min half.
- AI difficulty will remain legendary.
- Adidas All star and all such teams are banned.
- Controller settings can not be changed.
- 3rd party controllers are not allowed.
- Custom instructions are not allowed(unless agreed by both parties).
- Users sliders will remain default.
- Match time will increase to 5 minutes in quarters, 6 minutes in semis and 7 minutes in Finals.

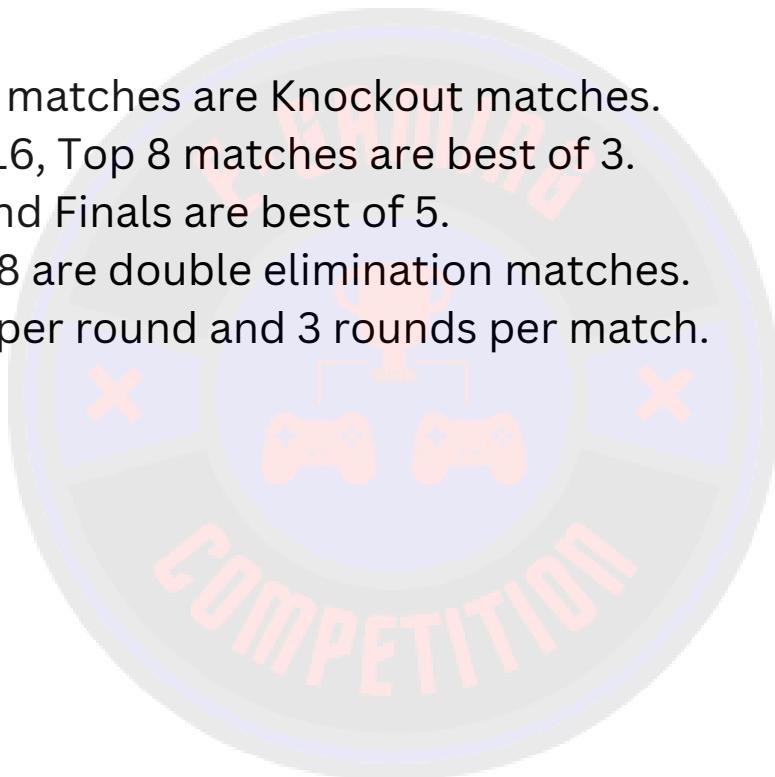


E-Gaming

Tekken

General Rules

- Group stage matches are Knockout matches.
- Group, Top 16, Top 8 matches are best of 3.
- Semi Final and Finals are best of 5.
- Top 16, Top 8 are double elimination matches.
- 60 seconds per round and 3 rounds per match.





Project Exhibition

Description

The IEEE Week Project Exhibition provides a platform for students and professionals to showcase their innovative projects in both software and engineering domains. This exhibition aims to promote creativity, technological advancement, and problem-solving skills by allowing participants to present their projects to industry experts, academia, and the general public.

Projects will be evaluated based on their originality, functionality, feasibility, and impact. Whether your project involves software applications, AI solutions, embedded systems, robotics, or any other innovative technology, this exhibition is the perfect opportunity to gain recognition and compete for exciting prizes!

General Rules

- All projects must remain on display for the entire duration of the event.
- At least one team member must be present at all times to explain the project to visitors and judges.
- A panel of judges will evaluate each project throughout the competition.
- Complete documentation, including a user manual, must be available at the time of evaluation. No project will be evaluated without proper documentation.
- Participants must be present during the evaluation. Failure to appear before the judges at the scheduled time will result in automatic disqualification.
- IEEE Week organizers reserve the right to modify any details or rules regarding the exhibition,
- Participants will be notified of any changes in a timely manner.



Winning team and runner-up are required to attend the closing ceremony next day, the other teams may leave with their participation certificates on the 1st day.

Project Requirements

- All types of projects (software and engineering) will be exhibited together under a single category.
- Projects must be original and not plagiarized—any project found to be a copy or replica of an existing one will be disqualified.
- Hardware-based projects must involve substantial hardware development by the participants.
- If a project requires specific conditions for demonstration, a simulation must be provided as a substitute

Presentation And Display

- Teams must bring their own laptops or USB drives for presentations, which should be in MS PowerPoint or PDF format.
- Teams must bring their own converters for projectors if needed.
- The competition organizers will provide Wi-Fi, but participants are encouraged to bring their own internet connection to avoid disruptions.
- No team is allowed to bring their own banners or flex displays.
- Display of shields, medals, or previous awards is not allowed.

Hardware And Equipment

- Participants must arrange their own hardware, including laptops, keyboards, and mice.
- Any additional hardware requests made during the competition may not be entertained.
- Participants requiring a power supply must inform organizers before the event.



- External hard drives are strictly prohibited for software-related projects—only USB devices are allowed.
- Participants will be responsible for any damage caused to hardware provided by the organizers.

Team Eligibility Criteria

- Each team must have 1 to 3 members from the same institute.
- Participants must be enrolled in or have completed an undergraduate/postgraduate degree on or after January 1, 2024.

Evaluation Criteria

Projects will be judged based on the following criteria:

- Originality & Creativity – Uniqueness and innovation of the idea.
- Quality of Implementation – Execution and completeness of the project.
- Scope & Feasibility – Practicality of manufacturing, usability in industry/society.
- Functionality – Completion of core features supporting the project concept.
- Effort & Presentation – The amount of work put in and the effectiveness of the presentation.

Disqualification And Judging

- Judges have the authority to disqualify any team based on disciplinary grounds.
- Any project found to be plagiarized will be immediately disqualified.
- The decision of the judging committee is final and cannot be challenged.



For more Info contact:

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