

**ROBOFIGHT - UNIVERSITY
BATTLEBOTS COMPETITION
IN JORDAN**



**ONLY ONE WILL STAND
FOR THE FIRST TIME IN JORDAN**

The Ultimate
Robot Combat
Challenge for
University
Students

Powered by :



Table of
CONTENTS

01	Introduction	06	Safety Guidelines
02	Competition Structure	07	Prizes & Recognition
03	Eligibility and Registration	08	Sponsorship
04	Robot Design Guidelines	09	Mangmant Team
05	Fabrication Phase	10	Contact us



WELCOME TO ROBOFIGHT!

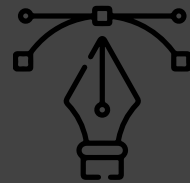
Robofight is an exciting, high-tech robotics competition for university students in Jordan. The competition challenges teams to design, fabricate, and battle their robots in an arena.

This event aims to foster innovation, creativity, and teamwork among university students while showcasing the cutting-edge potential of robotics in Jordan.

THE EVENT IS ORGANIZED INTO TWO PHASES:

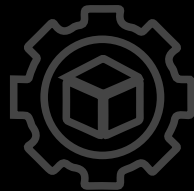
Design Phase

In the Design Phase, teams will submit their robot designs for approval. Only the top 32 teams from the design submissions will be selected to move



Fabrication Phase

on to the Fabrication Phase, where they will build their robots and compete in the battle arena.



HOW ROBOFIGHT WORKS

TWO PHASES OF EXCITEMENT

PHASE 1: DESIGN PHASE



Registration

Teams of students from universities across Jordan will register and submit their robot designs.



Design Submission

Teams must submit a detailed design of their robots, including drawings, specifications, and technical documentation. These designs will be reviewed by a panel of judges.



Selection

Only the top 32 teams will be selected based on their design quality, creativity, and feasibility.

PHASE 2: FABRICATION AND BATTLE



Robot Construction

The 32 selected teams will then proceed to build their robots according to their approved designs.



Combat

After completing their robots, the teams will enter the combat arena, where their robots will battle head-to-head in a series of intense matches.



Competition

The battles will test the robots strength, agility, and ability to disable or outlast their opponents.

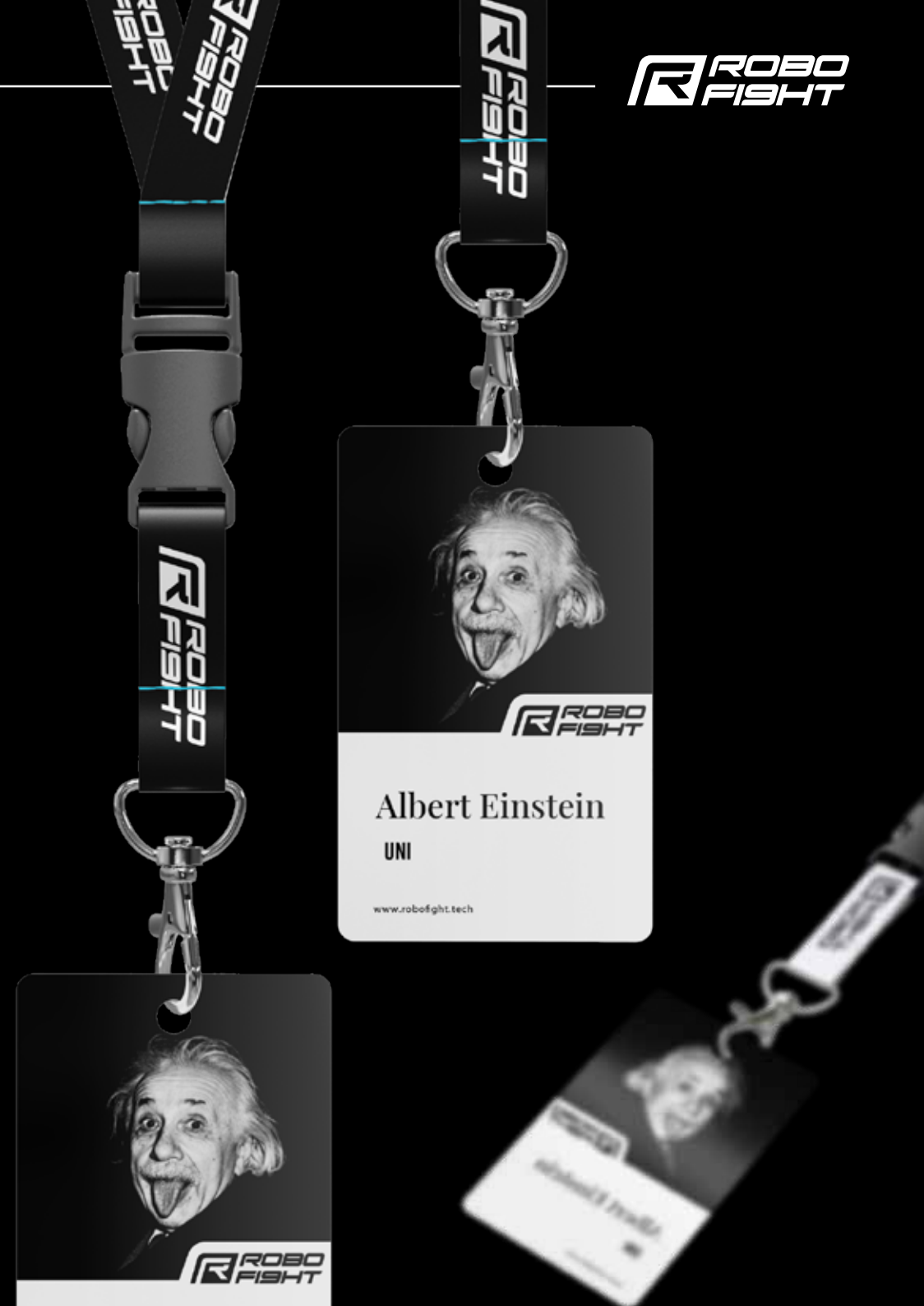
ELIGIBILITY CRITERIA & REGISTRATION

Who Can Compete?

Eligibility:

- ✓ All participating teams must consist of students from universities in Jordan.
- ✓ Each team must have a minimum of 3 members and a maximum of 6 members.
- ✓ Team members must be from the same university, though cross-department teams are allowed.

Target: The competition aims to accommodate 100 teams, but only 32 teams will move forward after the Design Phase.



IMPORTANT DATES :

<p>Tue</p> <p>15</p> <p>April</p> <p>Registration Deadline</p> <p>01</p>	<p>Tue</p> <p>20</p> <p>May</p> <p>Design Submission Deadline</p> <p>02</p>	<p>Sat</p> <p>15</p> <p>June</p> <p>Announcement of Selected Teams</p> <p>03</p>	<p>Sat to Sat</p> <p>6 – 13</p> <p>September</p> <p>Event Date</p> <p>04</p>
---	--	---	---

Submit your team details, robot design plans, and specifications by **20/6/2025**

REGISTRATION PROCESS :



Complete the online registration form on the Robofight website



Submit your team details, robot design plans, and specifications by



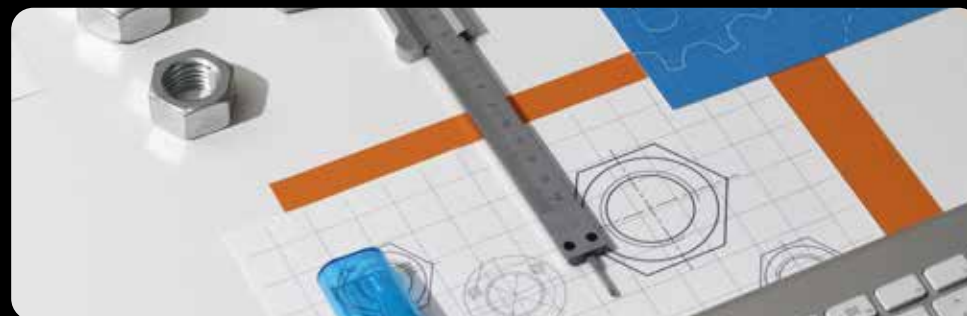
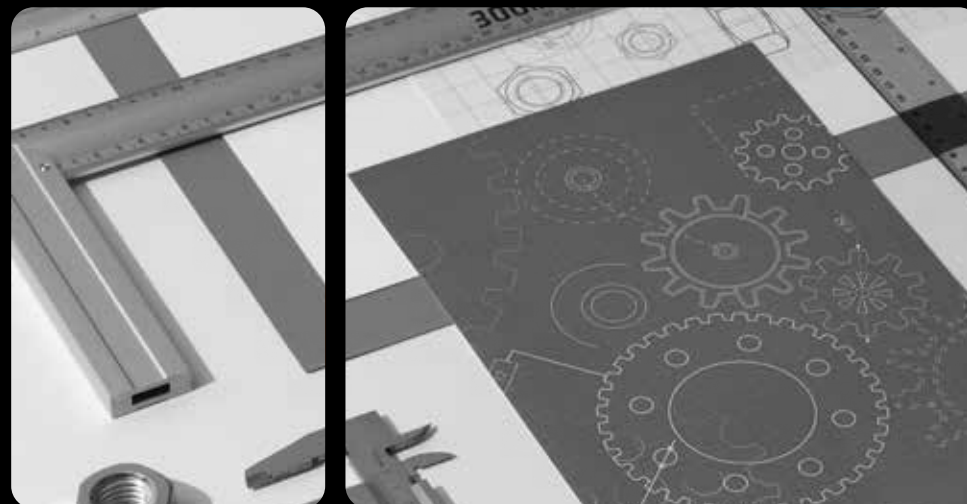
Pay the registration fee

DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER

To ensure fairness and safety while promoting creativity and engineering innovation, all participating robots must adhere to the following design guidelines.

These guidelines cover size, weight, allowed weapons, control systems, and safety features to ensure a competitive and safe environment in the Robofight competition.



Robot Size

Weight Limit

Allowed Weapons

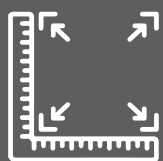
Control Systems

Power Systems

Robot Safety

DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER



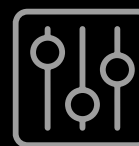
Robot Size



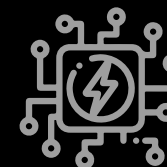
Weight Limit



Allowed Weapons



Control Systems



Power Systems

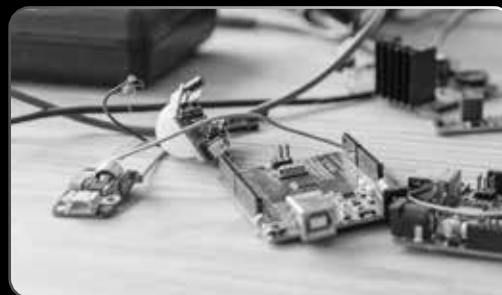


Robot Safety

The maximum robot dimensions are :

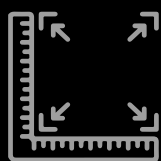
- 70 cm Height
- 70 cm Width
- 70 cm Depth

Robots must be able to fit within these dimensions, both in design and when fully constructed. Any robot exceeding these size limits will be disqualified.



DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER



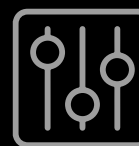
Robot Size



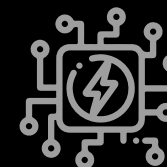
Weight Limit



Allowed Weapons



Control Systems



Power Systems



Robot Safety

The maximum weight of the robot, including all components, **is 30 kg**.

This includes all parts such as

- The chassis
- Weapons
- Wheels
- Batteries

Robots exceeding this weight will not be allowed to compete.



DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER

 <p>Robot Size</p>	 <p>Weight Limit</p>	 <p>Allowed Weapons</p>	 <p>Control Systems</p>	 <p>Power Systems</p>	 <p>Robot Safety</p>
---	---	--	--	--	---

Offensive Weapons :

Robots may include offensive weapons such as :

<p>01</p>  <p>Spinning Blades</p>	<p>02</p>  <p>Hammers</p>
<p>03</p>  <p>Flippers</p>	<p>04</p>  <p>Wedge Ram</p>

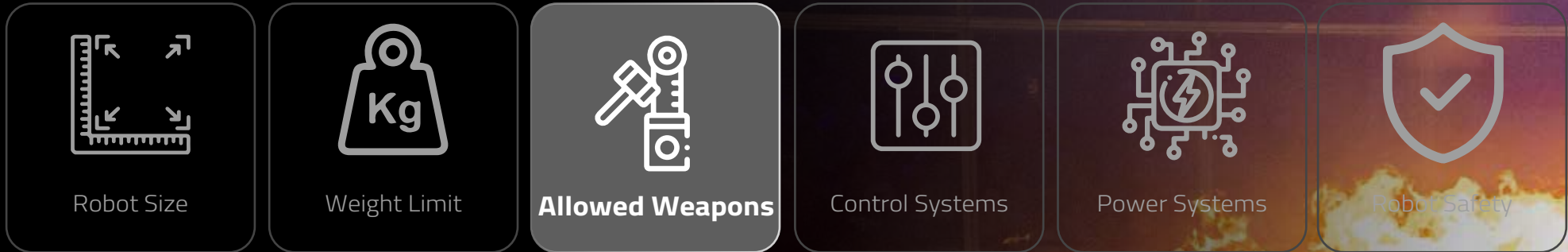
In addition to pneumatic arms

Warning: All weapons must be designed with safety in mind. Any weapon that could cause unintended injury to people or damage to the arena will be disqualified.

No fire-based weapons, explosives, or projectile-launching devices are allowed. All weapons must be shielded and cannot directly interfere with other teams' control systems.

DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER



Weapon Safety:

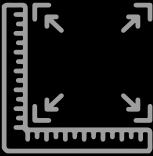



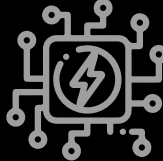
Weapons must have safety mechanisms that prevent accidental activation during transport and before the match starts. This includes any locking systems, covers, or switches that ensure no weapon can function unless intentionally activated.

Defensive Features:

Robots may incorporate defensive elements like armored plating, reversible chassis, and protective shields to avoid damage from opponent attacks.

DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER

 <p>Robot Size</p>	 <p>Weight Limit</p>	 <p>Allowed Weapons</p>	 <p>Control Systems</p>	 <p>Power Systems</p>	 <p>Robot Safety</p>
---	---	---	---	--	---

Driver Safety:

- The team members who operate the robot must wear
- protective gear such as gloves and goggles when in control, especially during testing and during battles.

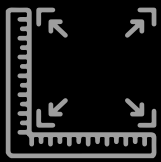


Control Type:

- Robots must be remotely controlled.
- Autonomous robots are not allowed during the combat phase, but pre-programmed movements are allowed in the Design Phase for testing purposes.
- Remote control can be through radio frequency (RF), Wi-Fi, or Bluetooth technologies. Wireless controllers must be reliable and provide continuous control throughout the battle.

DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER



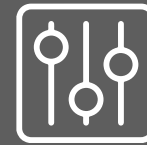
Robot Size



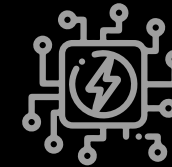
Weight Limit



Allowed Weapons



Control Systems



Power Systems



Robot Safety

Control Restrictions:

- Each team will be provided with a designated control frequency to avoid interference from other robots during the competition.
- If multiple teams use similar frequencies, it will be the responsibility of the teams to ensure compatibility or request a different frequency from the event organizers.

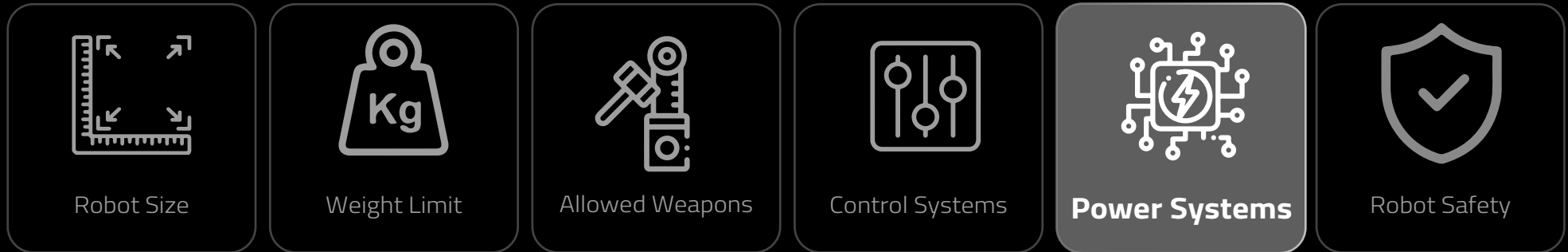
Emergency Stop Mechanism:

- Robots must include a manual emergency stop button that immediately halts all functions of the robot in case of malfunction or safety concerns. This can be triggered by either the team or event marshals.



DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER



Battery Types:

- Robots must use rechargeable batteries.
- LiPo (Lithium Polymer) batteries are allowed, but they must be secured and properly protected to prevent overheating or short circuits.
- Fuel-based systems or any form of combustion engines are strictly prohibited.

Power Safety:

- Robots must have fuses or circuit breakers to protect the power system in case of electrical failure.
- Batteries must be easily removable and clearly labeled with voltage and current specifications.



DESIGN GUIDELINES

BUILDING THE ULTIMATE FIGHTER



Safety Inspections:

- All robots will undergo a safety inspection before the competition to ensure they meet all size, weight, and safety requirements.
- Robots that do not pass inspection will not be allowed to participate in the competition.

Arena Safety:

- The combat arena is designed to handle robot battles safely, but robots must not use materials or designs that could damage the arena or pose risks to other robots.
- Robots with sharp edges, exposed moving parts, or dangerous materials may be rejected if deemed unsafe for the arena.



ADDITIONAL NOTES:

Design Submission:

- Teams must submit detailed CAD drawings, technical specifications, and a feasibility report of their design before the Design Phase deadline.
- The design will be judged based on creativity, functionality, safety, and feasibility of fabrication.



Feasibility Reports:

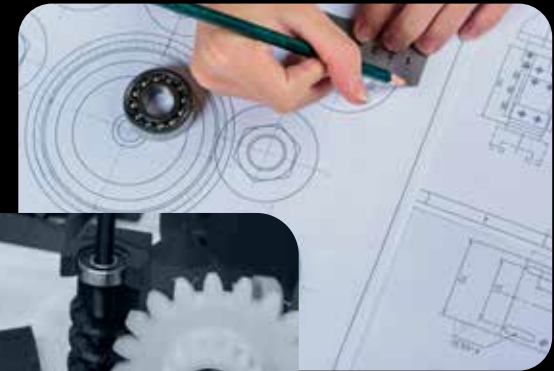
A detailed explanation of the robot's mechanical systems, control systems, and materials used must be submitted with the design plan. This ensures that the team can construct their robot within the competition's constraints.



TURNING DESIGNS INTO REALITY

The Fabrication Phase is where the designs come to life. After being selected in the Design Phase, the top **32 teams** will have the opportunity to build their robots and prepare for battle.

The fabrication process will last **3 months**, and teams will need to meet several important criteria, including access to resources, facilities, and training to ensure their robots are ready for the arena.





FABRICATION PROCESS:

Timeframe:

Teams will have **3 months** to construct their robots after the announcement of the selected teams.

This period allows sufficient time for teams to build, test, and refine their designs based on the guidelines set forth in the Design Phase.

Prototyping Arena:

- Each university will be provided with a small prototype arena for testing and fine-tuning robots before the official battle.
- Testing outside the designated prototype arenas is strictly prohibited. This rule ensures a level playing field and prevents unfair advantages from large-scale or unregulated testing environments.
- The arena will be available during university hours for teams to test robot functionality, behavior, and performance in a controlled, safe space.

SPECIALIZED TRAINING COURSES:

We are offering free specialized training courses for selected students to help improve their skills in areas that are critical for success in the competition.

TRAINING COURSES OFFERED:



PCB Design :

Learn the fundamentals of printed circuit board (PCB) design, fabrication, and troubleshooting.



Electronics :

Learn about the electronics involved in robot construction, including power systems, wiring, and circuit design.



Programming :

Gain expertise in robot programming, focusing on control systems, sensors, and actuator programming. This course will cover programming languages commonly used in robotics (e.g., C++, Python).



Robot Design & Mechanical Engineering:

A course dedicated to understanding the principles of robot design, material selection, and mechanical engineering, focusing on building durable and effective robots for combat.

SAFETY GUIDELINES

Prioritizing Safety in Design and Battle

PARTICIPANT SAFETY :

- 01 All participants must wear safety gear, including gloves and goggles, during the competition.
- 02 Teams must adhere to safety protocols when handling robots, especially during the battle.

ROBOT SAFETY :

- 01 Robots must have emergency stop buttons or mechanisms in case of malfunction.
- 02 All robots will undergo safety inspections before being allowed in the arena.

AWARDS & RECOGNITION

Compete for Glory and Prizes

Prizes:

- **1st Place** : 10000 JOD
- **2nd Place** : 6000 JOD
- **3rd Place** : 3000 JOD



Special Awards :

- Best Design Award
- Most Innovative Robot



Recognition:

- All participants will receive certificates of participation.
- The winning teams will be featured on social media and in university newsletters.

SPONSORS

Powering the Future of Robotics

- Robofight is proud to be supported by leading technology companies, educational institutions, and innovators in the field.
- **Sponsorship Opportunities:** If you are interested in becoming a sponsor, please contact us at [info@robo-fight.tech].

POWERD BY



Manara Tech Lab is a place where we transform our clients' ideas into tech products. We specialize in designing and manufacturing custom electronic devices and tech solutions based on our clients' needs.

Our focus is on prototyping new hardware technology, and we're equipped to handle mass production as well.



We unlock the full potential of our training programs by providing seamless and comprehensive solutions, enabling students to transform their innovative ideas into successful projects and commercial ventures.

CONTACT US

We're Here to Help

Robo Fight team are excited about the opportunity to collaborate, confident that our partnership will lead to mutual success.

Let's achieve greatness together

TO CONNECT WITH US

 info@robofight.tech

 www.robofight.tech

 +962775152872

 Robofight

 Robofight

 Robofight