

2023

ESYA

NORTH INDIA'S FASTEST
GROWING TECH FEST



IITD

TECHCELERATE

BOOTING INTO THE FUTURE



RoboWars (Flagship Event of ESYA)

Prize Pool: 1,50,000

The Challenge is to design and build a robot competent to fight other robots in Battle. The competition is carried out in a tournament format in which the competitors bring their wired/wireless robots ready to battle and are pitted against their competitor's robots in a one-one match where the aim is to cause maximum damage or to push the opponent's robot off the arena to score maximum points. The team scoring the maximum points wins the championship. The challenge has two participation categories as per the gross weight of the Robot (15Kg and 30Kg).

Expected Participation

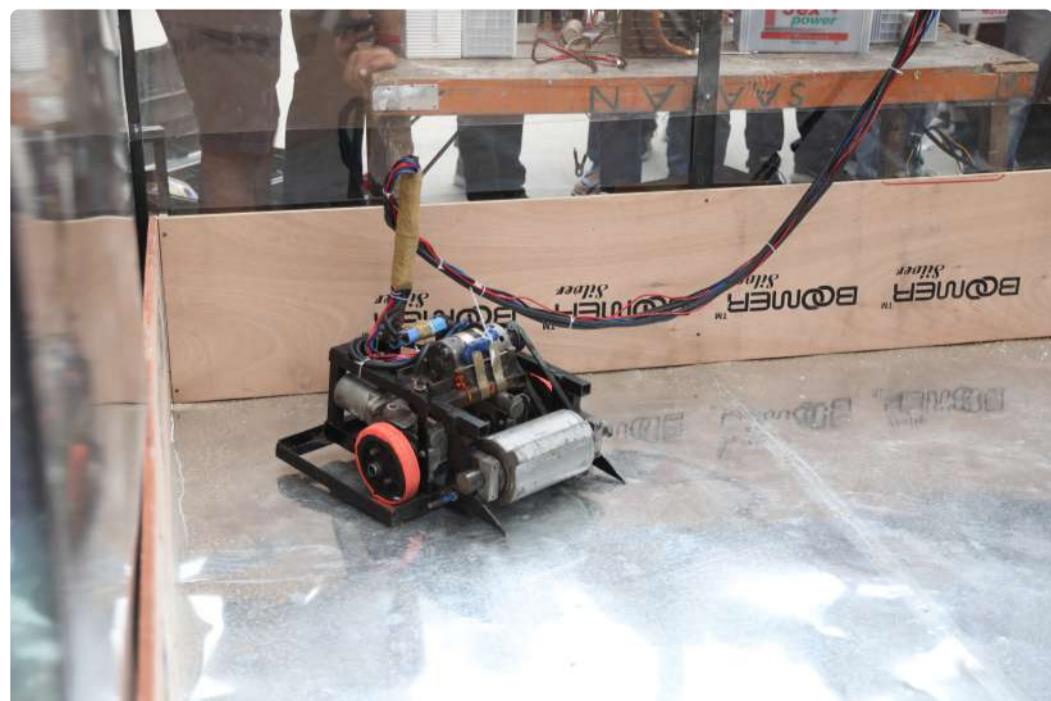
30+ teams + An audience of over 5000 people
(the matches will be live streamed)

Operational Requirements

- A 16 ft x 16 ft stage made of plywood
- 6 ft high 6mm polycarbonate walls
- A GoPro to stream the match
- Screens

Deliverables

- Name of the title sponsor on floor of the stage - Standees + Banners + Promo codes (offline branding with the event sponsor tagline)
- A targeted footfall of over 5000 students interested in electronics and robotics
- Advertisements played on screen before main matches (like finals, semi-finals and quarter-finals)
- There would be one people's choice award; would giveaway promotional merchandise + play the video before the announcement of the award - Social Media posts and stories



Robo Quest

Prize Pool: 75,000

Build your own autonomous robot within the specified dimensions to achieve the maximum speed to beat other robots on the given track and reach the destination in minimum time. The robot must follow the black line. The competition area has a special place defined for the robot's operation.

Expected Participation

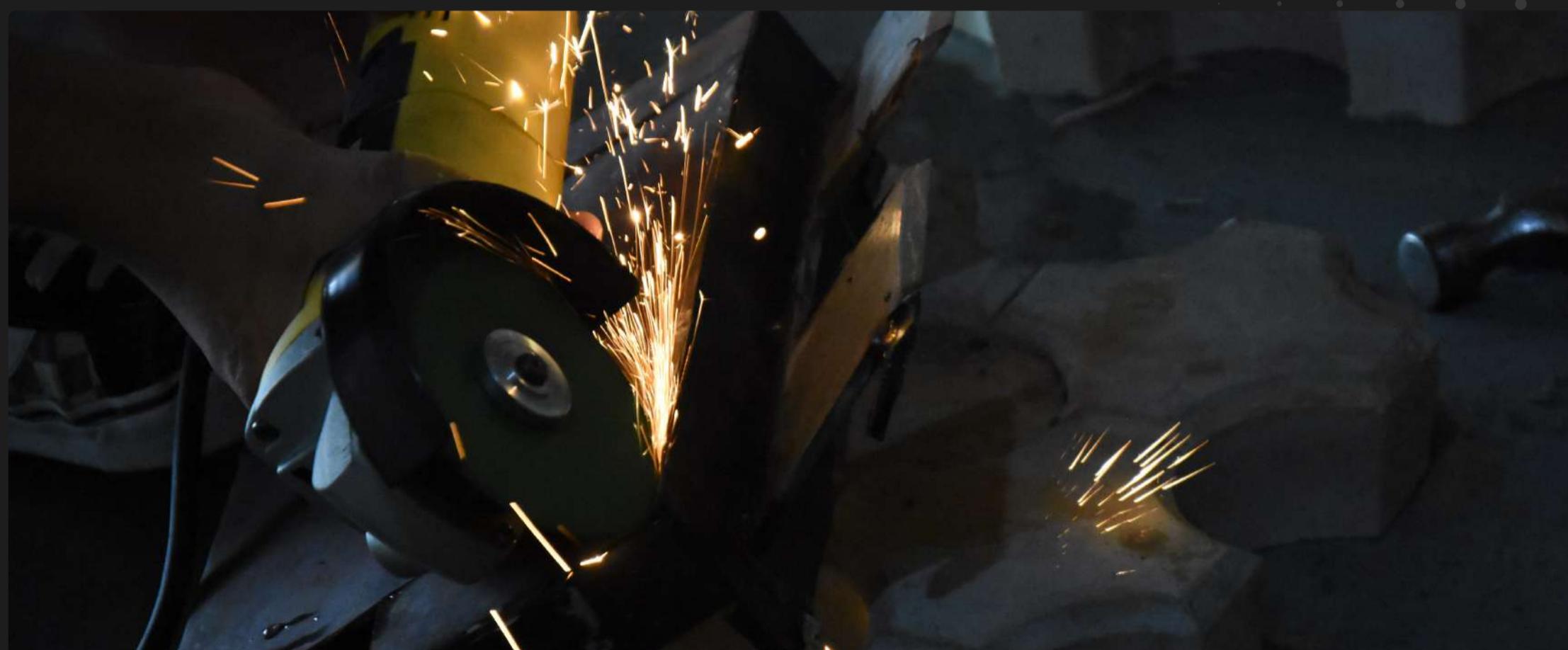
50+ teams

Operational Requirements

- 2 Stages made of plywood
- 4 Arenas printed on flex
- IR Sensors + Screen to detect and display the progress of the robot

Deliverables

- Promotional videos on screen
- Company logo printed on arena
- Standees (offline branding with the event sponsor tagline)
- Promotional merchandise to the winners
- Social media posts and stories



TechnoParkour

Prize Pool: 75,000

The challenge is to build your own robot wired/wireless within the specified dimensions in order to achieve the maximum speed to beat other robots on the given track consisting of many obstacles and reach the finishing line in minimum time.

Expected Participation

50+ teams + an audience of over 1000 people

Operational Requirements

- Materials to build the track (wood, PVC pipes, etc.)

Deliverables

- Name of the title sponsor on the track
- Standees (offline branding with the event sponsor tagline)
- Social media posts and stories
- Promotional merchandise



Sky Rush

Prize Pool: 1,00,000

Innovation takes flight at SkyRush as the participants design, build and fly their drones navigating through a challenging obstacle course. Further rounds would see teams being rewarded for executing various (often high-speed) maneuvers, climbing up the leaderboard. A good understanding of flight dynamics, and hardware and software prowess would take one a long way. Teams with the highest points win.

Expected Participation

20+ teams (of 7) + an audience of over 3000 people

Operational Requirements

- Obstacle course using Wood, PVC pipes, Metal poles, Flags and Gates

Deliverables

- Sponsor banners on the field
- Branding on obstacles
- flags, gates and poles
- Standees (offline branding with the event sponsor tagline)
- Social media posts and stories
- Promotional merchandise



RoboSoccer

Prize Pool: 75,000

RoboSoccer is one of the most famous challenges of Esha. Teams of 2 wireless/wired bots chase a ball around an arena with the aim to outscore the opponent.

Expected Participation

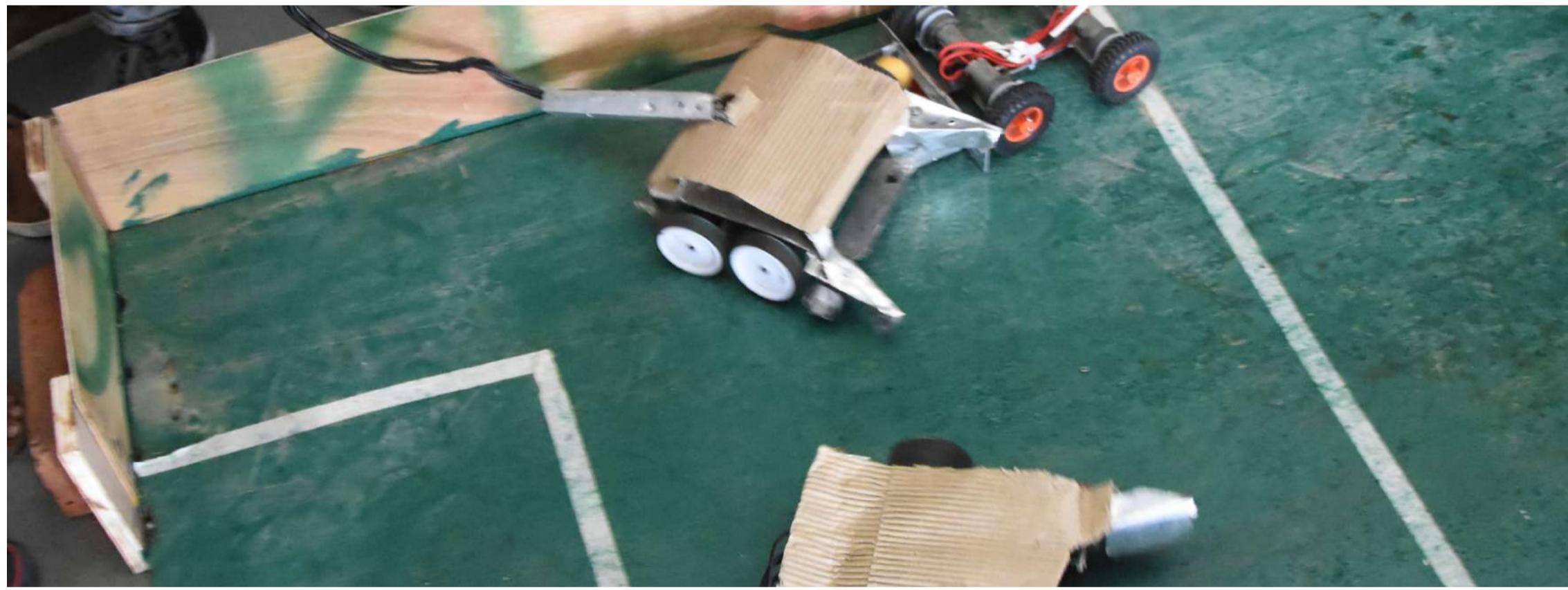
30+ teams + an audience of over 1000 people

Operational Requirements

- A soccer arena (with boundaries) made of plywood
- Screen to display goals scored by each team and remaining time

Deliverables

- Company logo printed on arena
- Standees (offline branding with the event sponsor tagline)
- Social media posts and stories
- Promotional merchandise
- Advertisement of sponsors on the screen



Power Grip Challenge

Prize Pool: 30,000

Participants will be tasked with designing and building a hydraulic arm prototype that can demonstrate a range of functionalities, such as lifting objects, precise manipulation, and intricate movements. They will need to consider factors like power, speed, control, and stability while keeping in mind the limitations of hydraulic systems.

Expected Participation

40+ teams

Operational Requirements

- Materials like cardboard, syringes, tubes, etc.

Deliverables

- Social media posts and stories
- Standees (offline branding with the event sponsor tagline)
- Promotional merchandise



Black Box

Prize Pool: 75,000

Hardware hacking based puzzle solving escape room event for teams of up to 4 members. Challenges will require use of concepts such as: - EEPROM dumping - sniffing wireless packet transfer in monitor mode - wiretapping an i2c interface bus between two devices - executing an RFID replay attack - identifying a UART controller and utilizing it to upload modified firmware to otherwise non programmable microcontrollers

Expected Participation

20-25 teams

Operational Requirements

- Puzzle boxes (PCB fabrication)
- Tools for solving the puzzles

Deliverables

- Social media posts and stories
- Offline branding (mentions in all print media, inside the puzzle, standees)
- Promotional Merchandise

