

# Mini Bots Competition Official Rules & Guidelines

Welcome to the Mini Bots Competition! Prepare for the ultimate showdown of engineering brilliance, creativity, and strategic combat! This competition invites you to design, build, and battle your very own combat bots. Can you outmaneuver, outlast, and overpower your opponents while adhering to strict weight and budget constraints? Let the battle begin!

## 1. Event Overview This competition is structured into three distinct phases, each designed to test your engineering skills and combat strategy:

- Phase 1: Proposal Round – Submit your bot's design, budget, and feasibility plan.
- Phase 2: Build Phase – Bring your bot to life, ensuring it meets competition standards.
- Phase 3: Battle Phase – Enter the arena and fight for victory! Your mission? Build the best battle bot while sticking to the competition rules and constraints.

## 2. General Rules Weight Class:

- UK Beetle Weight (~1.5kg) Size & Design:
  - There are no dimensional constraints—your bot can take any shape or form as long as it remains within the weight limit. Budget & Reimbursement:
    - Each team has a budget of ₹5000 (INR).
    - Participants must purchase their own materials. Upon submission of valid receipts, the Yantrik Club will reimburse up to ₹5000. Power Source: Any battery-operated system is allowed, provided it is safe. Weapons & Restrictions: •Allowed: Spinners, flippers, lifters, wedges, pushers.
    - Not Allowed: Fire, explosives, liquids, projectiles, or entanglement devices. Safety Measures: • All bots must have a kill switch to turn off power.
    - Bots must not have sharp or exposed dangerous parts outside of battle.

## 3. • Phases of the Competition Phase 1:

Proposal Round (First Come, First Serve - 12 Teams) Objective: • The first 12 teams will prepare and submit CAD designs by February 21st.

Submission Requirements: • CAD Design: A 3D model or sketches showcasing structure and components. • Projected Weight: Estimated weight with a breakdown of materials. • Budget & Feasibility: A parts list with cost analysis and sourcing plan.

Evaluation Criteria: • Feasibility – Can the bot be built within the given budget and timeline? • Ease of Assembly – Is the design practical to construct? • Creativity & Innovation – Unique mechanisms are encouraged!

Selection Process: • Out of the 12 submitted teams, 4 teams will be selected to proceed to the build phase.

• **Phase 2: Build Phase (February 21 - March 25) Objective:**

Construct your bot as per the submitted design. Requirements: • Bots must adhere to the 1.5kg weight limit. • Receipts for purchased components must be submitted for reimbursement. • Participants may adjust their design but must inform organizers of major changes. Checkpoints: • A mid-phase progress review will be conducted. • Any safety violations must be rectified before moving to the battle phase. • Manufacturing and components ordering period will take place during this phase. • Participants will be allowed to use the workshop for manufacturing and assembly.

• **Phase 3: Battle Phase (Final Showdown at Xpecto'25) Objective:**

Compete in a knockout-style battle to determine the ultimate champion. Match Format: • 1v1 knockout matches. • Each match lasts 3 minutes. Victory Conditions: • Knockout: Opponent is immobilized for 10 seconds. • Judge's Decision: If time expires, the winner is based on aggression, damage, and control. Battle Arena: • Enclosed combat arena. • The arena will feature obstacles and hazards to increase challenge. • Arena development is managed by SNTC.

4. **Additional Rules Team Size:** • Each team must have 3-5 participants. Modifications: • Minor improvements after battles are allowed. • Major modifications (e.g., replacing an entire bot) are not permitted. Fair Play: • Cheating, tampering, or violating safety regulations will result in disqualification.
5. **Prizes & Reimbursement:** • Top-performing teams will receive certificates and prizes. • Valid expenses up to ₹5000 will be reimbursed upon submission of receipts.

Possible Builds Here are some potential battle bot designs: • Ramp Bot – A wedge-shaped bot designed to outmaneuver opponents. • Flipper Bot – Uses a flipping mechanism to overturn adversaries. • Horizontal Spinner – A high-speed spinning weapon to deliver heavy blows. • Vertical Spinner – A vertical rotation weapon designed for maximum impact.

Do you have what it takes to design the ultimate combat bot? Gather your team, start planning, and prepare for the most exciting robotics showdown yet! Good luck, and may the best bot win! 🤖🔧💡