Steel Soldiers Slam

Steel Soldiers Slam (RoboWar) is a cutting-edge competition that brings together the brightest minds in robotics and engineering. This adrenaline-pumping event showcases the most recent advancements in robotic combat and promises an electrifying experience for both participants and spectators.

1. Prizes and Awards

Category			
Heavy Weight		**Light Weight**	
WINNER	Rs 20,000	WINNER	Rs 15,000
RUNNER-UP	Rs 10,000	RUNNER-UP	Rs 10,000
Special Recognition Prize - Rs 5,000			

2.Team Composition :

2.1 Team size :

- **2.1.1)** The number of players participating must be 2-5 per team.

2.2 Registration and Documentation :

- **2.2.1)** Teams typically need to register for the event in advance and provide all necessary information.

3. Robot Specifications :

3.1 Weight categories :

- **3.1.1)** Lightweight: less than 10 kg.
- **3.1.2)** Heavyweight: 10-15 kg

3.2 Dimensions: ·

- **3.2.1)** The size of the robot must be about 1 foot (30cm) on each side.

3.3 Connectivity :

- **3.3.1)** Only wireless robots are permitted due to the arena's structure. All competing robots must operate using wireless communication technology.

3.4 Power source :

- **3.4.1)** Participants must carry a minimum 2 rechargeable batteries and chargers with them.
- **3.4.2)** Household AC power supply will be provided at the event.

4. Weaponry and Armor :

- **4.1)** Projectiles, firearms and rockets that may impose a threat to viewers are strictly prohibited. Robots must not impose severe damage to the arena.

5. Safety Measures :

5.1 Electrical and Power Safety :

- **5.1.1)** Isolation of Electrical Components: Electrical components must be properly insulated and isolated to prevent short circuits and electric shock hazards.
- **5.1.2)** Battery Safety: Batteries must be securely mounted, and their terminals should be protected from damage. Teams must adhere to specific battery regulations.

5.2 Radio Interference and Frequency Coordination :

- **5.2.1)** Fail-Safe Mechanisms: Robots should have fail-safe mechanisms that activate in the event of signal loss to ensure they do not go out of control.

5.3 Fire Safety :

- **5.3.1)** Flame-Resistant Materials: Robots must not use materials that are highly flammable, and special precautions should be taken if any pyrotechnic or flame-producing devices are part of the robot's design.

5.4 Noise and Hearing Protection :

- **5.4.1)** Noise Levels: Robots should not produce excessive noise levels that could harm hearing. Teams are encouraged to use hearing protection when working on or near their robots.

5.5 Compliance with Inspection :

- **5.5.1)** Pre-Event Inspection: All robots must pass a pre-event safety inspection to ensure compliance with safety regulations.
- **5.5.2)** Post-Match Inspection: Robots may be inspected after matches to verify their continued compliance with safety rules. Teams must make necessary adjustments if required.

5.6 Reporting Safety Concerns :

- **5.6.1)** Participant's Responsibility: All participants are encouraged to report any safety concerns or potential hazards to event organizers immediately.

6. Remote Control :

6.1 Remote Control Systems: ·

- **6.1.1)** Reliability: Remote control systems must be reliable and capable of maintaining a stable connection with the robot throughout the match.

6.2 Autonomy and Autonomous Mode :

- **6.2.1)** Controlled Autonomy: Robots with autonomous capabilities must ensure that their autonomous functions are controllable and do not pose a safety risk. The robot must be under human control at all times when in proximity to people or other robots.
- **6.2.2)** Autonomous Behavior Testing: Autonomous robots must undergo rigorous testing to ensure that their behavior is predictable and safe during matches.

6.3 Emergency Shutdown :

- **6.3.1)** E-stop Button: All remote control systems must include an easily accessible Emergency Stop (E-stop) button or switch. Pressing this button should immediately disable all robot movements and weapon systems.
- **6.3.2)** Operator Awareness: Operators must be trained to recognize situations where the E-stop should be used and must react swiftly to any potential safety risks.

6.4 Operator Training :

- **6.4.1)** Operator Competency: Operators should be trained and competent in using the remote control system to ensure safe and effective robot operation.

6.5 Remote Control Failures :

- **6.5.1)** Backup Controls: Robots should have backup control options or fail-safes in case the primary remote control system experiences technical failures.

6.6 Interference Mitigation :

- **6.6.1)** Signal Interference: Teams must take measures to minimize interference in the radio signals between the remote control and the robot.
- **6.6.2)** Pre-Match Checks: Remote control systems should undergo pre-match checks to ensure they are functioning correctly.

6.7 Reporting Issues :

- **6.7.1)** Technical Problems:

6.7.1.1) Teams experiencing technical problems with their remote control systems should report them to event organizers immediately.

6.7.1.2) Organizers will grant an additional 15 minutes to address and resolve these technical issues. Failure to resolve the issues within given time may lead to disqualificatio**n.**

- **6.7.2)** Safety Concerns: Any safety concerns related to remote control systems should be reported to event organizers promptly.

7. Match Format:

- **7.1)** Qualifying round: Robots will aim to push the opponent out of the designed ring.
- **7.2)** Winning round: Robots will aim to impose maximum damage to the opponent within the given time.
- **7.3)** Round-specific rules will be disclosed at the time of the event.

8. Arena Specifications:

- **8.1)** The competition will be held in a strong closed arena measuring 18ft X 18ft.
- **8.2)** The entire arena is encased in a see-through cage, safeguarding it from any external access during matches.
- **8.3)** The arena also features multiple hazards and obstacles which will be disclosed at the time of the event.
- **8.4)** Overhead LED lighting will illuminate the arena evenly to provide optimal visibility.
- **8.5)** High-definition cameras will be positioned to ensure no foul play is practised.
- **8.6) Arena Rules :**
- **8.6.1)** Each participant must initially place their robots on the space provided for each team. Neglecting this requirement may result in penalties.
- **8.6.2)** Any serious damage to the arena will incur fines.

9. Repair and Maintenance :

- **9.1)** Participants are required to bring their own tools and parts for any repair or changes required.
- **9.2)** Participants will be given maximum 15 minutes between matches for repair and maintenance.
- **9.3)** Participants are allowed to use only one robot throughout the tournament. Not following this rule may lead to disqualification.

10. Ethical Guidelines :

Participants are requested to contribute to the seamless operation of the competition making it fair, safe and respectful.

10.1 Safety :

- **10.1.1)** All teams must design robots with the safety of spectators, participants and event staff in mind. Failure to pass the safety test may lead to disqualification.

10.2 Fair Play:

- **10.2.1)** Cheating and unauthorized modifications to the robots is strictly prohibited.
- **10.2.2)** Intentionally interfering with the control systems or attempts of tampering and sabotage of opposition robots is also considered cheating.
- **10.2.3)** Match-fixing/Pre-arranging outcomes and disrupting on-going matches is a severe breach of fair play.

10.3 Decorum:

- **10.3.1)** Unsupportive behaviour like bullying, threatening and showing aggression towards other teams or event staff will not be tolerated.
- **10.3.2)** A respectful and cooperative atmosphere shall be maintained at all times.

Note : The rules outlined in this rulebook are subject to change. Any modifications or updates to the rules will be communicated to all participating members prior to the start of the event.