

SHIVALIK UNIVERSITY

QUANTUM DRIFT 2026 Official Competition Guidelines & Rulebook

	09 October, 2026
Official Venue:	Shivalik University Campus
Team Formation:	Solo or Teams of up to 4 members max
Weight Limit:	Less than 4 kg
Registration & Scrutiny:	Mandatory same-day inspection
Registration Platform:	https://shivatech2026.vercel.app/events/quantum-drift
Registration Fees:	300/- per Team

1. High-Level Event Architecture

1.1 Introduction & Event Overview

Shivalik University welcomes all innovators, engineers, and RC enthusiasts to 'Quantum Drift 2026', a premier remote-controlled vehicle championship designed to put driving skill, vehicle stability, tactical engineering, and sheer speed to the test. Across four dynamic battlefields, competitors will navigate precision tracks, play high-octane automotive soccer, engage in intense sumo ring battles, and push motor RPMs to the limit in sprint heats.

1.2 General Regulations & Eligibility

Team Composition: Participants may enter either individually (Solo) or as a collaborative team with a maximum of 4 members. All drivers and pit crew must be officially registered.

Vehicle Weight: The vehicle weight must be under 4kg including all the components such as battery, motor and car body.

Same-Day Vehicle Registration: All participating vehicles must be presented for inspection and registration on the morning of 09 October, 2026, at the venue before any matches commence.

Car Rule (Substitution): Once an RC vehicle is registered, verified, and tagged, the team CAN use different car in the tournament. Substituting or swapping of the vehicle during match is only allowed during maintenance or pit stop.

Post-Tournament Pit Stop & Maintenance: After every tournament match or arena heat, participants are granted dedicated pit time to carry out necessary repairs, battery swaps, recalibration, and mechanical adjustments on their car or transmitter.

Transmitter & Frequency Control: Participants must use standard 2.4 GHz spread-spectrum systems (or clearly isolated channels) to prevent cross-interference with other arenas running concurrently.

2. Core Competition Mechanics

The championship comprises three specialized competitions. Each arena presents unique tactical demands and victory conditions:

2.1 Robo Car Race

Arena Format: High-speed multi-car circuit racing where 2 to 4 RC cars line up on the starting grid simultaneously.

Gameplay & Objective: Vehicles race across the marked laps Cross all the designated phases. The first car to legitimately cross the designated finish line wins the heat.

Winning Criteria / Progression: First to finish all the phase on the track and cross the finish line will secure the win.

Specific Rules: Deliberate ramming to spin out competitors during cornering, intentional track blocking, or cutting chicane corners will result in 5-second penalties or heat disqualification.

2.2 Robo Car Soccer

Arena Format: Head-to-head, 1-on-1 clash inside an enclosed mini-football arena featuring boundary walls and designated goalposts.

Gameplay & Objective: Two RC cars compete to control, dribble, and strike a lightweight football into the opposing team's goal.

Winning Criteria / Progression: First car to score 2 goals or max goal scored in 5 Minutes wins the match immediately and advances to the next stage.

Specific Rules: Play is centered entirely on the ball. Intentional high-impact ramming solely aimed at immobilizing the opponent will incur a foul warning. Deadlocked ball situations will be resolved via a central drop-ball by the referee.

2.3 Robo Car War (Sumo Combat Arena)

Arena Format: Two RC vehicles are placed face-to-face inside an elevated combat ring/stadium featuring open perimeters and zero outer safety barriers.

Gameplay & Objective: Competitors must utilize torque, leverage, and driving strategy to shove, push, or knock the opposing car off the stadium edge.

Winning Criteria / Progression: A vehicle knocked out of the stadium 3 times loses the bout. The participant who successfully forces the opponent off the arena platform 3 times is crowned the victor and moves forward.

Specific Rules: In case of dead-lock, most damaged car will lose. Or bout will restart in the condition of dead-lock and both cars sustain equivalent amount of damage Hazardous elements like spinning blades, fire devices, adhesives, entanglement nets, or high-voltage discharge weapons are strictly banned. Passive pushing plates, angled plows, and heavy-traction tires are fully encouraged.

3. Arenas Overview & Quick Reference

Competition	Matchup	Time / Resource Constraint	Winning Criteria
Robo Car Race	2-4 Cars per Sprint	Standard circuit laps & heats	First to finish all the phases during the race and cross the finish line.
Robo Car Soccer	1 vs 1 Head-to-Head	Match ball, enclosed arena	2 goal or max goal in 5 minutes
Robo Car War	1 vs 1 Sumo Combat	Elevated platform, open drop-offs	First to achieve 3 ring-out falls on opponent

4. Technical Scrutiny & Safety Rules

- **Weight Limit (Strict):** Maximum allowed weight is 3,500 grams (3.5 kg). A precision calibration scale will be placed at the technical desk. Vehicles over this threshold will be denied registration until brought into compliance.
- **Battery Safety:** Li-Po / Li-Ion / NiMH batteries must be securely strapped inside a protective battery bay to avoid detachment on impact. Any pack exhibiting swelling, damage, or exposed wiring will be prohibited.
- **Emergency Kill Switch:** All RC cars must have an accessible on/off power switch or direct quick-release power connector.
- **Arena Zone Control:** Only registered drivers and designated marshals are allowed inside the driver pit boxes. Non-participants must view from designated spectator zones.

5. Grounds for Disqualification

- **Unauthorized Car Swap:** Replacing or running any car other than the specific chassis verified and stamped during morning registration.
- **Ballast Tampering:** Adding unauthorized weight post-inspection to exceed the 3.5 kg limit.

- **Dangerous Modifications:** Employing prohibited hazardous hardware (e.g., untethered projectiles, sharp puncture spikes, hazardous chemicals, or signal jammer modules).
- **Unsportsmanlike Conduct:** Disrespecting event marshals, tampering with competitors' pit areas, or intentional reckless behavior.

6. Banned Item or Equipment

1. Robo Car Race

- Any mechanism designed to obstruct, block, or damage the opposing car or their racing lane.
- Sharp or protruding parts.
- Projectiles.

2. Robo Car Soccer & Robo Car War

- Weapons of any kind.
- Sharp or pinching mechanisms.
- Flipping mechanisms.
- Projectiles.
- Any part designed to damage the opponent car.
- Batteries exceeding a 12V nominal voltage.

"Organized by ACM Student Chapter | Quantum Drift 2026, For inquiries, official notices, or rule clarifications, contact Coordinator through website."