

LNRC 2026

Range & Operations Safety Policy

LIGNUM National Rocketry Competition • Golden Grove, St. Thomas, Jamaica • August 15, 2026

1. Purpose & Scope

This policy states how Lignum Propulsion manages safety at every LNRC 2026 activity: kit distribution, build support sessions, official launch days, and competition day. It applies to all participants, faculty and adult supporters, volunteers, officials, and spectators. Compliance with this policy is a condition of participating in or attending any Lignum Propulsion event. This policy supplements the LNRC 2026 Game Manual; where the Game Manual sets a stricter rule, the Game Manual applies.

2. Safety Authority

The Range Safety Officer (RSO) has final authority over all flight and range operations. The RSO may inspect any rocket, hold or deny any flight, pause or close the range, and direct any person on site. Any Lignum Propulsion official may stop an activity they judge unsafe. A safety instruction from an official is not negotiable. Refusing or ignoring a safety instruction results in removal from the site and may result in disqualification.

3. Motor & Igniter Custody

Live rocket motors and igniters remain in Lignum Propulsion's central custody at all times. Each team has an allocation of 3 KNSB competition motors (LP-KNSB-34-165), issued one at a time, under supervision, only at official launch days and on competition day. Motors and igniters are never distributed with kits, shipped, sold for unsupervised use, or held by teams. Competition kits contain one inert demo motor (mass simulator) that is painted safety orange, marked INERT - DEMO, contains no propellant, and is not flight capable. Attempting to fly a demo motor, to modify or open any motor, or to obtain or fly live motors outside an official Lignum Propulsion event results in immediate disqualification and a ban from the range.

4. Launch Day Operations

- Motors are stored in the official motor magazine and issued at the pad area by Lignum Propulsion staff only.
- Motor installation and igniter installation happen under official supervision. The igniter is installed at the pad, as the final step, with the rocket vertical on the rail.
- Electronics are armed at the pad only, after the RSO's instruction, and disarmed before a rocket is removed from the pad.
- During a launch, all personnel stand behind the designated safety line, no closer than 10 metres from the pad, or further at the RSO's direction.
- Misfire procedure: if a motor fails to ignite, nobody approaches the pad for a minimum of 60 seconds. Only the RSO or pad manager approaches, disarms, and removes the igniter.
- A loud "HEADS UP" call is made for any rocket descending ballistically or drifting toward people. Watch the sky, do not run blind.

5. Range Layout & Spectators

- The range is divided into a launch area, a team preparation area, a spectator area, and a recovery zone. Boundaries are marked and briefed at the start of each event.

- Spectators remain behind the spectator line at all times during range-open periods. Children must be supervised by an adult.
- Nobody enters the recovery zone until the RSO calls the range clear. Teams recover their own hardware accompanied by a flight official.

6. Weather & Flight Conditions

- No rocket is launched into cloud, fog, or conditions where it cannot be seen throughout its flight.
- The RSO holds launches when wind or weather makes safe flight or recovery doubtful, and closes the range immediately if lightning is observed or thunder is heard.
- Launch rail angles are set as directed by the RSO to keep flights inside the range boundary.

7. Build & Workshop Safety

- Participants under 18 use knives, saws, soldering irons, and epoxy only under adult supervision.
- Adhesives and paints are used in ventilated spaces. Eye protection is worn when cutting, sanding, drilling, or soldering.
- Kit components are used as supplied and intended. Damaged or defective components are reported to Lignum Propulsion, not improvised around.

8. Medical & Emergency

First aid is available at every official Lignum Propulsion event. All injuries, however minor, are reported to an official immediately. Emergency vehicle access to the site is kept clear at all times. In an emergency the RSO closes the range and directs the response until emergency services arrive.

9. Violations

Safety violations are handled in proportion to their severity: a warning, a held flight, disqualification of a flight or team, or removal from the site. Deliberate unsafe conduct, tampering with motors or igniters, or repeated disregard of instructions results in a permanent ban from Lignum Propulsion events. There is no appeal against a safety call made on the day.

10. Contact

Questions about this policy: lignumpropulsion@gmail.com. The current version of this policy is published at www.lignumpropulsion.com and may be updated before competition day.