POST-REPAIR FUNCTIONAL TEST REPORT

WORLDSKILLS BASE ROBOT

Complete this report after any hardware or electrical repair, call the experts before completing this check.

1 — Repair Reference

Country: **Date:**

2 — Pre-Test Safety Checks

- ☐ Test area clear of people, obstacles, and trip hazards, with at least 2 × 2 m of clear, flat floor space.
- ☐ E-stop confirmed to release/engage correctly before powering up.
- ☐ Battery voltage checked and within normal range before testing. Record Voltages Here: Battery 1 _____Battery 2_____

3 — Power-Up & Status Check

- ☐ Robot powers on cleanly with no unexpected indicator or fault state.
- ☐ VMX and both Titan controllers show a normal status indication (no reverse-power or fault LED).
- ☐ Dashboard / console (if used) shows the robot connected with no error messages.

4 — E-Stop Functional Test (Safety-Critical — Must Pass)

- ☐ With the robot driving, press the E-stop and confirm all motion stops immediately.
- ☐ Confirm the robot does not respond to any command while the E-stop is latched.
- ☐ Release the E-stop and confirm the robot requires the normal reset/start sequence before it will move again.

WARNING

Do not proceed to the drive test below until the E-stop has passed this check. A robot with a faulty E-stop must not be operated.

5 — Functional Drive Test: Square Pattern

Purpose: a simple full-drivetrain functional check — driving a square.

Procedure:

- ☐ Mark a clear start point and note the robot's starting heading.
- ☐ Drive forward approximately 1 metre in a straight line.
- ☐ Stop, then turn 90° (pick one direction and use it consistently for all four turns).
- ☐ Repeat forward + turn three more times, for four sides total.
- ☐ Confirm the robot returns close to the marked start point, facing its original heading.

Pass Criteria:

- ☐ All four sides driven without stalling, unexpected stopping, or E-stop/fault triggering.
- ☐ No consistent drift or veer to one side on the straight sections.

7 — Overall Result & Sign-Off

Overall Result: ☐ PASS — robot returned to service ☐ FAIL — further repair required

Expert 1 Signature:	**Date:**
Expert 2 Signature:	**Date:**