

## KEEP WITH THE ROBOT

# FieldScout quick start

Physical robot / identify the installed control profile first

**Unexpected motion: use the physical stop**

The supplied demonstration firmware can start after an eight-second countdown. Opening a serial port may reset the controller. A USB disconnect or browser stop button does not stop this standalone sequence. Know the physical stop and isolation procedure before applying drive power.

## 1 Identify, inspect and prepare

Confirm serial number, firmware, battery/charger and approved limits in the delivered-unit record. Inspect wheels, mounts, cables and payload. Use a clear, controlled area with a trained operator and accessible physical stop. If the control profile or stop arrangement is unknown, keep drive power isolated and obtain the missing information.

## 2 Connect the intended controller

For the documented standalone demo, use the identified ESP32 USB serial port at **115200 baud**, with newline termination. Close other applications using that port. Follow the supplier's supported-wheel/commissioning procedure for first power-up. Be ready for initialization and the automatic countdown; cancel with `PAUSE` or `STOP`. Confirm the stopped state physically.

## 3 Use the confirmed demo commands

| Command                                   | Meaning in the supplied demo firmware                                                                           |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <code>PAUSE</code> or <code>STOP</code>   | Request zero wheel targets and pause the sequence.                                                              |
| <code>STATUS</code>                       | Show driver readiness, demo state and ACK/failure counters.                                                     |
| <code>RESUME</code> or <code>START</code> | If ready, restart from forward motion; does not continue a paused position.                                     |
| <code>ESTOP</code>                        | Request zero targets and disable both drivers. Communication-dependent; use the physical stop for an emergency. |
| <code>INIT</code>                         | Reconfigure and enable drivers, then request zero. Can energize the drive; do not bypass an unresolved fault.   |
| <code>HELP</code>                         | List the implemented serial commands.                                                                           |

## 4 Stop, isolate and leave secure

Send `PAUSE` or `STOP`, verify that all wheels are stationary and follow the shutdown/isolation procedure. Do not rely on serial text alone. Use the approved charger and battery instructions. Record faults before a deliberate restart.

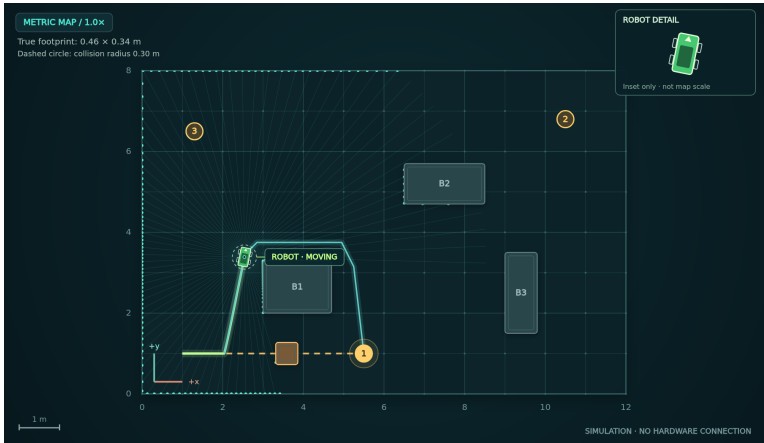
**External control is a separate released configuration**

The Lua script expects `HELLO` and `CMD,FL,FR,RL,RR`; neither supplied ESP32 sketch implements that receiver. For delivered external/autonomous control, use its approved software, startup procedure and verified timeout/stop behavior. The heartbeat-only sketch prints text and does not operate wheels.

BROWSER DEMONSTRATION

# Try Navigation Studio

Simulation only / no physical robot connection



Simulated detour: amber original route, cyan current route, green traveled path. The close-up inset is separate from the metric map.

| Action              | What to do                                                                                                                                                         |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Open the project    | Open <code>V9 index.html</code> , or visit the address below. Select <b>Drive Lab</b> .                                                                            |
| Start a mission     | Click <b>Start example mission</b> . Only the virtual robot moves.                                                                                                 |
| Test a detour       | Click <b>Add obstacle ahead</b> during a mission. Watch detection, a planning pause and a new route toward the same goal.                                          |
| Test no route       | Click <b>Test blocked route</b> ; a barrier appears after two simulation seconds. After stopping, use <b>Remove added obstacles</b> , then <b>Resume mission</b> . |
| Drive manually      | Click <b>Start manual driving</b> . Hold W/A/S/D, arrows or a direction button. Release to stop.                                                                   |
| Stop / disable      | Use Space or <b>Stop simulation</b> . <b>Stop &amp; disable</b> requires a new start.                                                                              |
| Emergency-stop test | Click <b>Emergency stop</b> or press X. <b>Reset emergency stop</b> leaves motion stopped until a deliberate start.                                                |
| Inspect the robot   | Select <b>3D explorer</b> on the main page. Orbit, zoom, inspect, isolate or explode the assembly.                                                                 |

### Know what the demonstration proves

The Studio uses ideal pose, synthetic LiDAR and A\* replanning. Detection reveals a complete ideal box to the planner. Serial/Modbus messages and expected ACKs are examples. Downloads are local simulation records, not a robot command feed or proof of physical obstacle avoidance.

[adaptiveagrotech.com/FieldScout/index.html](https://adaptiveagrotech.com/FieldScout/index.html)

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