



Technology Readiness Level (TRL)

A Practical Guide for Robotics Freelancers

1. Map a Robotics Project to TRL Levels

Description: : Pick any robotics idea you know and list what it looks like at TRL 1, 3, 5, and 9.

Write one clear sentence per TRL describing research, simulation, testing, and production state.

2. entify the Simulation-to-Reality Gap

Description: Choose a simple robot task and write what can be tested only in simulation at TRL 3–4.

Then note two risks that would appear only when moving to a real robot.

3. Evaluate a TRL 5+ Freelance Project

Description: Imagine a client project and confirm if an actual robot and environment already exist.

Decide if the project is production-oriented or research-only, and write why.

4. Design a Safe Testing Plan

Description: List five tests you would run in simulation and two you would allow on hardware.

Briefly justify why simulation testing must be higher in count than physical testing.

5. Shift from Research to Production Thinking

Description: Write two examples where hard coding or barcodes are better than advanced AI.

Explain in one sentence how this choice affects cost, reliability, and client expectations.

Explore our [learning paths](#) to start building robots today