FOR ROBOT MAKERS, AI ROBOTICS COMPANIES AND INTEGRATORS

Before a robot can go to work, it has to prove it is safe and secure

Before a robot is switched on at a customer's site, it must pass checks set by the buyer, local inspectors and the law. Missing papers or tests can hold up a deal for months. We prepare you for these checks: we find what is missing, run the tests and put the evidence in order. Independent labs and auditors make the final decision.

There is no single approval

A robot passes four separate checks on its way to the shop floor. Each one is done by someone different.

CHECK 1
The robot
Robot maker
Is the robot itself built to the safety standards?

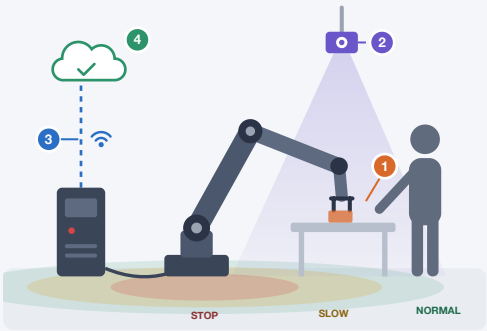
CHECK 2
The robot cell
Integrator who installs it
Is this task safe, with this gripper, speed and layout?

CHECK 3
The site
Local inspector or test lab
Can it be switched on here? The hardest step in the US.

CHECK 4
Daily use
Employer
Are workers trained and changes recorded?

Passing one check does not pass the next. Agility Robotics' Digit humanoid passed a lab check at one customer site in November 2025. That approval covered that one site only.

At every check, the same four questions come up



1. **Is it safe to work next to?**
   Speed, force and stopping distance when people are close.
2. **Does the AI behave safely, after every update?**
   How the robot reacts to people and to rare situations.
3. **Can someone hack the robot?**
   Network, remote access and software updates.
4. **Is our data safe with your company?**
   Your cloud, staff logins and your security audit (SOC 2).

Why this matters now

The main robot safety standard was rewritten in 2025, and new EU laws start in 2026 and 2027.

Feb 2025
New robot safety standard ISO 10218
Worldwide

11 Sep 2026
Report hacked security flaws within 24 hours
EU Cyber Resilience Act

TODAY

9 Dec 2026
Software counts as a product in damage claims
EU Product Liability

20 Jan 2027
New machinery law; safety AI needs outside review
EU Machinery Regulation

11 Dec 2027
Full product security rules, including CE marking
EU Cyber Resilience Act

20 months
for one robot maker to get its robot listed by a US test lab.

7–12 months
for a first SOC 2 report, often asked for before a deal is signed.

1 site
is all a US on-site approval covers. Each new site needs its own.

€15M or 2.5%
of yearly turnover: the top fine under the EU Cyber Resilience Act.

What we do for each question

One change, like a new AI model, can affect safety, AI and security at once. So we cover all four together.

1 · Safe to work next to

Physical safety around people

THE PROBLEM

- The 2025 standard is over 250 pages. Every new task, gripper or speed needs its own risk check. A “cobot” label is not enough.
- Contact force limits are checked for 29 body areas, and few engineers can sign this work off.

WHAT WE DO

Run the risk assessment task by task. Use simulation to find the contact points that matter, so fewer need measuring on the real robot. Plan the force and stop-time tests and draft the technical file.

You get: risk assessment, test results, draft technical file.

2 · Safe AI, after every update

AI behaviour testing

THE PROBLEM

- A model update can change how the robot moves near people. Most safety files assume a machine that never changes.
- EU, from 20 Jan 2027: if the AI itself keeps people safe, an approved outside body must review it.

WHAT WE DO

Write down what the AI decides and what a separate safety layer always enforces (this decides if you need outside review). Build normal and rare test scenes, re-run them in simulation after each update, and test the riskiest on the real robot.

You get: safety design note, test scenes, a report per model version.

3 · Hard to hack

Product cybersecurity

THE PROBLEM

- Robot hacks are public: backdoors in Unitree robots (2025), a takeover flaw in Universal Robots software (2026).
- EU law since Sep 2026: report hacked flaws within 24 hours. Buyers now expect IEC 62443 security certificates.

WHAT WE DO

Review threats and run a penetration test (experts try to break in). List every software part. Set up the 24-hour reporting process and prepare you for the IEC 62443 certifier.

You get: test report with fixes, software parts list, reporting playbook.

4 · Data safe with your company

Company security and audits

THE PROBLEM

- The first large customer often asks for SOC 2 before signing. Exotec got one because its Fortune 500 clients asked.
- Buyer IT teams ask where robot video is stored and who can log in remotely. Standard audit tools miss these robot parts.

WHAT WE DO

Set the scope and check your gaps. Write the policies and set up controls in a tool such as Vanta or Drata, including the robot items. Support the audit and answer buyer questionnaires.

You get: audit-ready controls, audit support, buyer security pack.

Example: one AI robot arm, two first customers

A startup sells robot cells to a car-parts factory in Germany and a warehouse in the US. The rules work differently.

EU Factory in Germany: safety is law

- CE marking under the new Machinery Regulation (from 20 Jan 2027). The integrator signs.
- If the AI itself keeps people safe, an outside body reviews it first.
- Report hacked flaws within 24 hours now. CE marking for cyber from Dec 2027.

US Warehouse in the US: buyers set the bar

- No robot law. After accidents, the regulator (OSHA) points to voluntary standards.
- The local inspector must approve the cell before power-on, often by a lab check at that site.
- The buyer’s IT team sends a security questionnaire and asks for SOC 2.

Most evidence is the same, so we build it once

Risk assessment · Force tests · AI test scenes · Threat review · Software parts list

Selling later in the UK, Canada, Japan, South Korea, China or India? Their rules are mostly based on the same ISO 10218 standard, so the evidence is reused with the local mark.

How we work with you

Six steps. The first two show where you stand before you commit to anything larger.

1 — 30 min · free
Short call
Tell us what you sell, where and to whom. We say which questions apply.

2 — 2–4 weeks · fixed fee
Gap check
We review what you have and list what is missing, by deadline and risk.

3 — 1 week
Plan
Tasks, owners and dates, and which tests need an outside lab.

4 — Depends on scope
Test and collect evidence
Simulation, real-robot and security tests, each linked to its risk.

5 — Depends on scope
Documents ready
Technical file, test reports and security pack, as the lab or buyer expects.

6 — Ongoing
Keep it current
When the gripper, software or AI model changes, we show what to re-check.

After every change, we repeat steps 4–6 →

Who does what

You
The robot company
- Share designs and software
- Make the design decisions
- Provide the robot for tests
- Sign your own declarations

access & decisions →

Us
Preparation and evidence
- Find the gaps and plan the work
- Draft risk checks and documents
- Run simulation and security tests
- Keep the evidence up to date

ready evidence pack →

Lab or auditor
Independent final check
- Independent testing
- Site inspections
- Certificates and audit reports

We do not issue certificates. That keeps the final check independent, which is what your customers and regulators expect.

Which questions apply to you?

	1 · Safe to work next to	2 · Safe AI	3 · Hard to hack	4 · Data safe
Your robot works close to people or in the same space	●	○		
An AI model decides how the robot moves	●	●		
You sell, or plan to sell, in the EU	●	○	●	
Your robot is online, or your team can log in to it remotely			●	○
Robot data (video, maps, logs) goes to your cloud			○	●
A large customer sent you a safety or security questionnaire	○		○	●

● Needed ○ Often needed, depends on your case

If a line is true for you, the dots show where to start.

Why work with us

Safety, AI and security in one place
A new AI model can affect all three. We check them together, not through three firms.

Simulation before hardware
We find risky cases early, before you buy safety parts or book a lab.

Evidence that stays current
Each test is linked to its risk. After a change, you re-test only what is affected.

Start with a free 30-minute call

Tell us what your robot does and where you sell it. We will tell you which checks apply and what is missing.

Email **info@dodao.com**
Web **dodao.io/robot-safety**

This document gives general information. It is not legal advice.