



How to Evaluate Human-Robot Safety with Robotics Providers: Top Questions to Ask

- How are your robots designed to ensure safe collaboration with human workers?
You should hear about specific design features like collision avoidance systems, emergency stop buttons, force and speed limits.
- What safety certifications and testing processes do your robots undergo?
Learn about the safety standards the robots meet, as well as pre- and post-production testing procedures.
- Do your robots require physical barriers or segregated areas for operation?
You should hear that the robots can safely operate alongside human workers without the need for fenced-off zones, which can impact warehouse space and productivity.
- How do your robots detect and navigate around obstacles, including humans?
Learn about the technology used, such as LiDAR sensors, 3D obstacle cameras, and safety-edge rubber bumpers.
- What happens when the robot encounters an obstacle or an emergency?
Ensure the provider explains the robot's response, such as entering E-Stop mode or running self-diagnostics.
- How are the speed and movement of the robots regulated for safety?
Confirm that both software and hardware components are used to control and limit the robot's speed.
- How do your robots contribute to reducing physical strain and injuries among workers?
Ask about specific tasks the robots handle that alleviate physically demanding work, such as heavy lifting or long-distance cart pushing.
- What safeguards are in place to prevent robot-related accidents or injuries?
Learn about all the built-in safety features and emergency protocols that help minimize risks in a warehouse environment.

This checklist will help ensure that the robotics solutions being considered prioritize human safety and can integrate seamlessly into warehouse operations.