rethink robotics ®

Smart, Collaborative Robot for Precision Tasks

Introducing Sawyer™ – the revolutionary new high performance collaborative robot designed to execute machine tending, circuit board testing and other precise tasks that have historically been impractical to automate with industrial robots. Sawyer is a significant addition to the Rethink Robotics family of smart, collaborative robots, which also includes the Baxter® robot that defined the groundbreaking category of safe, interactive, affordable automation.

sawyer™

Redefining Automation

Today, an estimated 90% of manufacturing tasks still can't be practically handled by traditional industrial automation* – and many companies have outsourced labor to low-cost regions to complete those tasks. But as labor rates rise, and availability falls, manufacturers struggle to find cost effective ways of keeping up with quickly changing consumer demands.

Sawyer, the latest smart, collaborative robot from Rethink Robotics, gives manufacturers the high performance automation needed for precision tasks, while maintaining the crucial flexibility, safety and interactive user experience that have become synonymous with our brand. Our robots adapt to real-world variability, are agile enough to change applications quickly, and perform tasks like people do.

*Source: Boston Consulting Group

High Performance Collaborative Robot

Weighing only 19 kg (42 lbs), Sawyer™ features 7 degrees of freedom with a 1260 mm reach that can maneuver into the tight spaces and varied alignments of work cells designed for humans. Its compliant motion control allows it to "feel" its way into fixtures or machines, even when part position changes. This enables an adaptive repeatability that is unique in the robotics industry and allows Sawyer to work effectively in semi-structured environments on tasks requiring 0.1mm of tolerance.

Sawyer includes an embedded vision system, consisting of a head camera with a wide field of view and a Cognex camera in its wrist that enables the Robot Positioning System for dynamic re-orientation, and over time will support more advanced functionality that is inherent to the Cognex system. The robot runs on the Intera™ software platform, enabling fast and easy training, implementation and redeployment as needed to meet rapidly changing production requirements.

7 degree of freedom arm with 1260 mm reach

Embedded vision with Cognex camera

Part of the Rethink Robotics Family of Smart, Collaborative Robots

- "Feels" its way into fixtures and machines and fits into existing work cells

- Works like people do to dynamically manage semi-structured environments and adapt to real-world conditions

- Trained easily, implemented quickly and redeployed as needed

- Ideally suited for machine tending, circuit board testing and other high precision jobs

Basic Specifications

Weight (without pedestal)	19 kg (42 lbs.)		**Safety by Inherent Design**	Power and force limited compliant arm with series elastic actuators and embedded sensors
Degrees of Freedom	7		**Embedded Force Sensing**	High resolution force sensors embedded at each joint, standard
Maximum Reach	1260 mm		**IP Classification**	IP54 rating
Payload	4 kg (8.8 lbs.)		**Power Requirement**	Standard power outlet (120V, 6 amps)
Target Applications	Machine tending, circuit board testing, material handling, packaging, kitting, line loading, order fulfillment and more.		**Useful Life**	35,000 hours
			Operating Software	Intera™
Task Repeatability	0.1 mm		**Global Availability**	North America, Europe and Asia-Pacific (see website for full details)
Embedded Vision	Cognex camera in wrist, wide view camera in head			

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