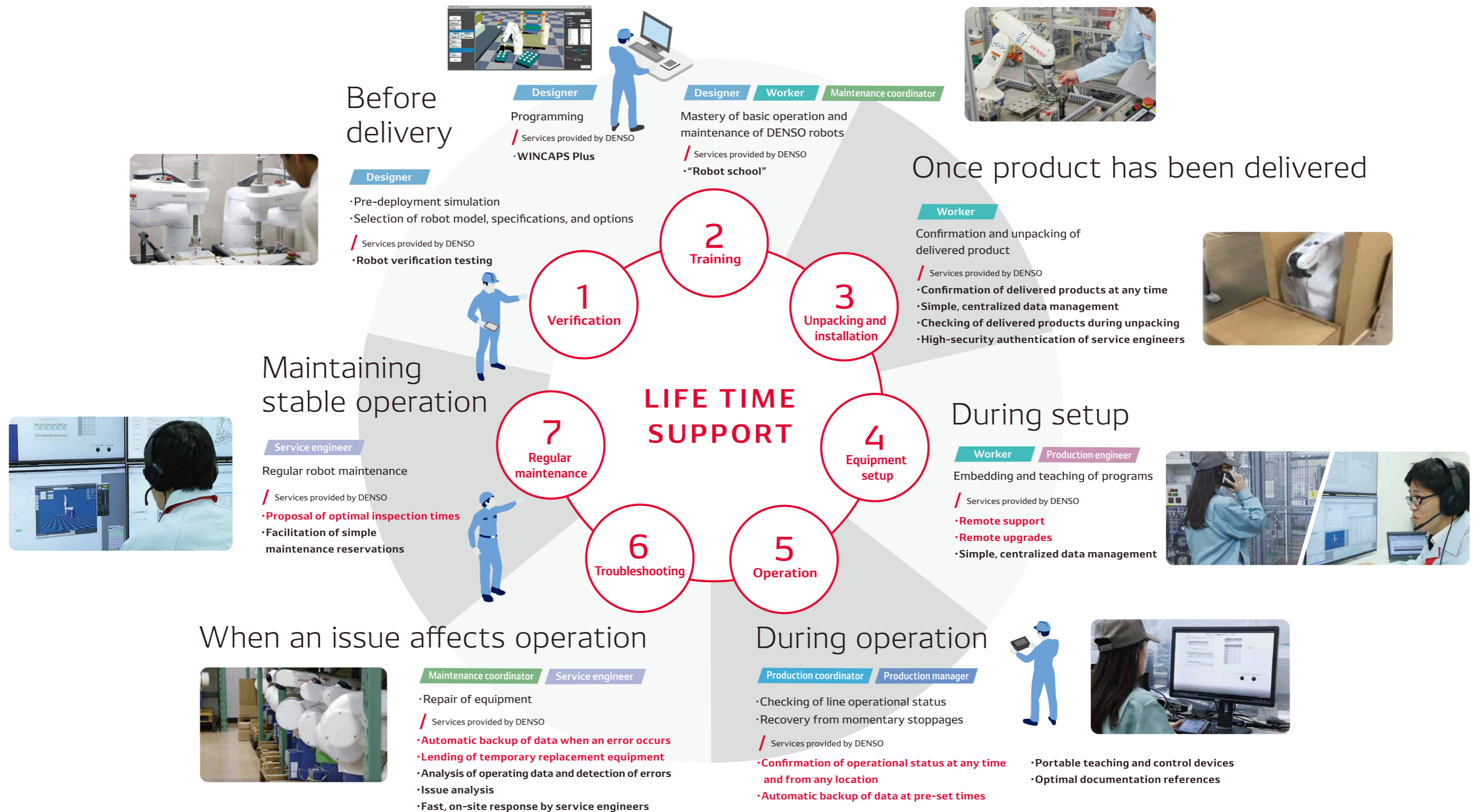# DENSO Robotics Cloud

From the pre-deployment study stage to maintenance thoroughly support of efficient robot life time.

Industrial robots are typically used in a variety of situations over the course of their service life. The workers involved vary from situation to situation, as do the required expertise and technical skills. DENSO Robotics Cloud is a cloud-based platform that helps reduce equipment setup time, downtime, and maintenance man-hours by providing service that has been optimized for individual situations and operators over the course of a robot's service life.

Before delivery

Designer
Programming
/ Services provided by DENSO
・WINCAPS Plus

Designer | **Worker** | **Maintenance coordinator**
Mastery of basic operation and maintenance of DENSO robots
/ Services provided by DENSO
・"Robot school"

Designer
・Pre-deployment simulation
・Selection of robot model, specifications, and options
/ Services provided by DENSO
・Robot verification testing

Once product has been delivered

Worker
Confirmation and unpacking of delivered product
/ Services provided by DENSO
・Confirmation of delivered products at any time
・Simple, centralized data management
・Checking of delivered products during unpacking
・High-security authentication of service engineers

During setup

Worker | **Production engineer**
Embedding and teaching of programs
/ Services provided by DENSO
・Remote support
・Remote upgrades
・Simple, centralized data management

Maintaining stable operation

Service engineer
Regular robot maintenance
/ Services provided by DENSO
・Proposal of optimal inspection times
・Facilitation of simple maintenance reservations

When an issue affects operation

Maintenance coordinator | **Service engineer**
・Repair of equipment
/ Services provided by DENSO
・Automatic backup of data when an error occurs
・Lending of temporary replacement equipment
・Analysis of operating data and detection of errors
・Issue analysis
・Fast, on-site response by service engineers

During operation

Production coordinator | **Production manager**
・Checking of line operational status
・Recovery from momentary stoppages
/ Services provided by DENSO
・Confirmation of operational status at any time and from any location
・Automatic backup of data at pre-set times
・Portable teaching and control devices
・Optimal documentation references

LIFE TIME SUPPORT

1 Verification
2 Training
3 Unpacking and installation
4 Equipment setup
5 Operation
6 Troubleshooting
7 Regular maintenance

Cloud-based platform

DENSO Robotics Cloud

DENSO

Choose the menu of support services that's right for you.

DENSO Robotics Cloud offers a menu of basic support services.

Going forward, we will enhance and extend an additional menu of optional support services to offer even greater convenience and peace of mind.

Basic support

It goes without saying that troubleshooting is the most problematic task operators must deal with during a robot's service life.
DENSO offers a suite of basic support services designed to deal quickly and accurately with problems so that downtime is minimized.

Check operational status anytime, anywhere.

You can check the system's operational status via a Web browser from a computer, smartphone, or other device, even when you're in a remote location. Your device will be notified in the event the robot encounters an error while operating.
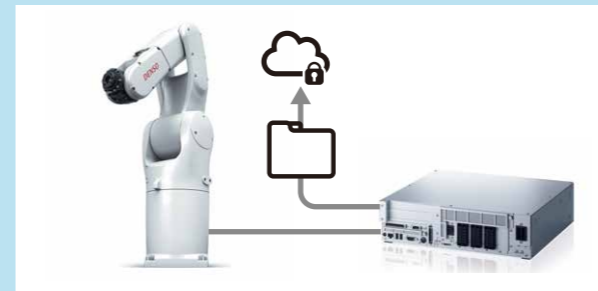
Back up data automatically.

Robot data is automatically backed up based on the system's status. In the event of an error, backup data in the cloud can be shared with service engineers so they can more quickly pinpoint the cause of the problem.

Take advantage of remote support.

In the event of an error, a service engineer will provide support while checking the state of your robot, ensuring that the troubleshooting process can proceed smoothly.

Temporarily borrow replacement equipment.

In the event a piece of equipment must be repaired, DENSO can lend you a temporary replacement. We'll restore backup data from before the error occurred onto the device and deliver it to your site so that you can get back up and running as quickly as possible.

*Separate fees apply.

Time inspections optimally.

A service engineer will analyze robot data stored in the cloud by the automatic backup process and propose optimal inspection times.

Upgrade equipment remotely.

Robot controllers can be upgraded as necessary, for example in order to add new functionality, by service engineers who perform upgrades quickly and in a way that accommodates your schedule.

Optional support

+

*Available after release. We will expand the menu of services from time to time going forward. Please see our website for the latest information.
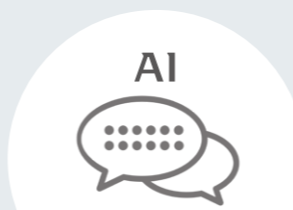
High-security authentication of service engineers
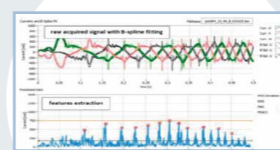
Confirmation of delivered products at any time

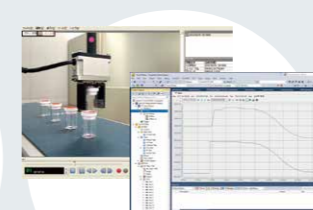**Checking of delivered products during unpacking**

Immediate manual references using QR codes

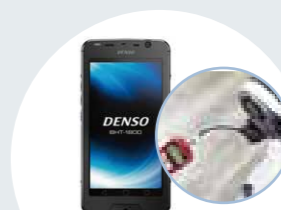AI

Inquiry processing by AI chatbots

Analysis of operating data and error detection

Issue analysis function

Easy maintenance reservations

Fast, on-site response by service engineers

*We plan to expand foreign-language support in the future.