COBOTTA

Anywhere, anytime, hassle-free.
A robot that collaborates with everyone.

With the initial purpose of increasing the productivity of our own automobile component manufacturing facilities, we have been developing DENSO robots for 50 years. Today, we introduce the new industrial collaborative robot "COBOTTA". The human-friendly, compact, and portable design allows you to take COBOTTA anywhere, and automate tasks right away. No expert knowledge is required, making operation amazingly easy.

Do you need that extra hand? Do you want to leave simple tasks to robots, and make more time for creative work? COBOTTA will open infinite possibilities to address your needs, and realize creative, new ideas.
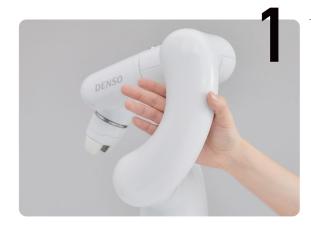
1 safety design

Collaborative robots do not require safety fences. The unique outer contour has no sharp edges, and consists of curves that prevent hands from getting caught. Sensors are built into the six moving parts for constant monitoring of speed and torque, to guarantee safety from a functional aspect (planning to obtain certification from a third-party certification authority).

2 portable body

The main unit weighs approximately 4 kg providing easy portability, and offers a load capacity of 500 g. The integrated controller not only reduces wiring, but also allows consolidated control with other devices. ORiN is supported as standard.

3 easy to use

Equipped with a direct teaching function and an intuitive GUI for easy programming. An optional camera can be mounted to enable teaching using the camera.

4 open platform

The integrated controller is open, and COBOTTA's control API is made public, allowing creators to develop their own applications in the environment they choose (OSS version).

Term	Specifications
Axes	6 + 1 (for an electric gripper) [*1]
Brake	J1 to J5 with brake
Total arm length (1st arm + 2nd arm)	342.5(165+177.5)mm
Rated load capacity (Maximum payload)	0.5 kg (* 0.7 kg wrist direction downward within ± 10 degrees) [*2]
Maximum allowable inertia moment	J4:0.0065kgm^2 J5:0.0047kgm^2 J6:0.0012kgm^2
Position repeatability	±0.05mm [*3]
Cycle time	Default: 4.32 sec, Max Speed: 1.6 sec (Time required for robot to move between two points 200 mm apart at a height of 25 mm)
Protected type	COBOTTA unit : IP30 AC adapter, AC cable : IP20
Software	Standard type: COBOTTA dedicated software, OSS type: none (* Linux, etc. can be installed by customer)
Power supply specifications (AC adaptor)	Input single-phase 100 to 240 AC ±10% / 47 to 63Hz
External signal	Input : 20 ports (8 ports for user inputs, 12 ports for system inputs) Output : 20 ports (9 ports for user outputs, 11 ports for system outputs) Emergency stop device connector: 1ch
External communication	Ethernet x 1 line, USB x 2 lines, VGA output x 1 ch
Environmental condition (in motion)	Temperature: 0 to 40 degree C, Humidity: 20 to 80% RH (no condensation allowed)
Weight	Approx. 4 kg
Standards for safety (* planning to obtain certification from a third-party certification authority)	Standard type ▶ ISO 10218-1:2011 ISO/TS 15066:2016 ISO 13849-1:2015 PL d Cat.3 OSS type ▶ ISO 13849-1:2015 PL d Cat.3
Airborne noise (A-weighted equivalent continuous sound pressure level)	55dB or less (Measured with the rated load and the maximum speed at the factory default.)
Defacement degree	2 [*4]
Over-voltage category	II [*5]

This product is an industrial robot that can realize a collaborative operation with a human. Please conduct a risk assessment in accordance with the relevant laws, ordinances, guidelines, ISO 12100: 2010, etc. to fully reduce risk before use. Also, please confirm you are compliance with laws and standards required for your environment.

*1. Options   *2. Without installing an electric gripper   *3. At constant ambient temperature   *4. Pollution degree 2 applies to homes and offices.   *5. Overvoltage Category 2 is energy-consuming equipment supplied from a fixed installation (such as outlet).