

/> Cambrian Intelligence

Making robots intelligent

Cambrian

Cambrian is an add-on to your collaborative and industrial robots. The artificial intelligence based solution gives the robot arm human level skills for various manufacturing tasks such as pick and place, binpicking, cable insertion and many more.

Why add intelligence to your robots

Automate easier



Instruct your Cambrian enabled robot with high-level commands like pick / place / insert / locate. Just like you would another human. There is no need to program the robot in cartesian space or drag the robot around.

Automate faster



The AI can react in dynamic environments so you don't need to manufacture custom fixtures or jigs to hold everything in fixed place. If you need to change something in the robot cell you don't need to re-program as the AI can still locate your parts and adapt to changes.

Automate more



Robots with AI can do a wider range of tasks that were previously infeasible to automate. As you can program the Cambrian AI for a new task much quicker and easier than using status-quo methods you can automate rapidly changing production too.

Return on investment



Installing AI-empowered robots into your production will bring competitive advantages and reduce your costs significantly.

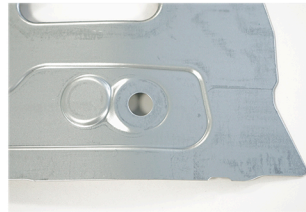
Use cases

Binpicking



Use Cambrian **pick and place skill** for all your binpicking tasks.

Tool use



Use Cambrian **locate skill** to find features in 3D.

For example, locate holes, nuts, bolts, openings or other components and features for further tool use.

Kitting



Use Cambrian **pick and place skill** to prepare pre-assembly kits.

For example, binpick parts and place them on a kit tray for further use down in your production.

Cable insertions



Use Cambrian **pick and place** and the **insertion skill** to pick cables and plug them or insert them through holes.

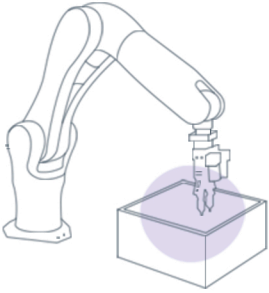
Assembly



Use Cambrian **skills** to quickly set up your robot to do a wide range of assembly tasks.

How it works

Upload the relevant CAD models.



The Cambrian AI learns to pick and locate your parts in a simulated environment.

After training - the Cambrian AI is ready to pick up parts. To see around it relies on RGB cameras on the robot arm.

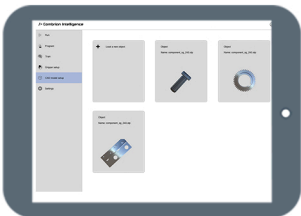
Instruct the Cambrian AI using high-level commands like **pick**, **place**, **insert**, **locate** etc., just like you would instruct another human.

How to use

1. Load CAD data of your parts.
2. Let Cambrian AI engine learn.
3. Instruct the robot for a new task with simple one-line commands: **pick / place / insert / locate** etc.

OR

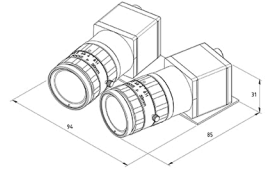
3. Program API calls for Cambrian **skills** from your favourite robot code (KRL, Java, RAPID).



Technical data

Installation steps:

1. Mount the camera module on the robot.
2. Connect the Cambrian computing unit to the robot via a network cable and upload a provided Cambrian script to run on the robot controller.



Different mounting plates are available to fit your specific robot and gripper configuration.

Available skills	pick / place / insert / locate
Prediction time	0.2s
Minimum part size	1mm x 1mm x 1mm
Supported robot brands	KUKA, ABB, Universal Robots
Integrations	PLC, ROS
Typical binpick cycle time	~5s (including robot and gripper movements)

The package

Cables



Camera module

Computing unit



Send us your challenge

Send us your parts.
We will make a demo for you.

Contact

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