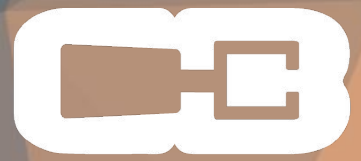
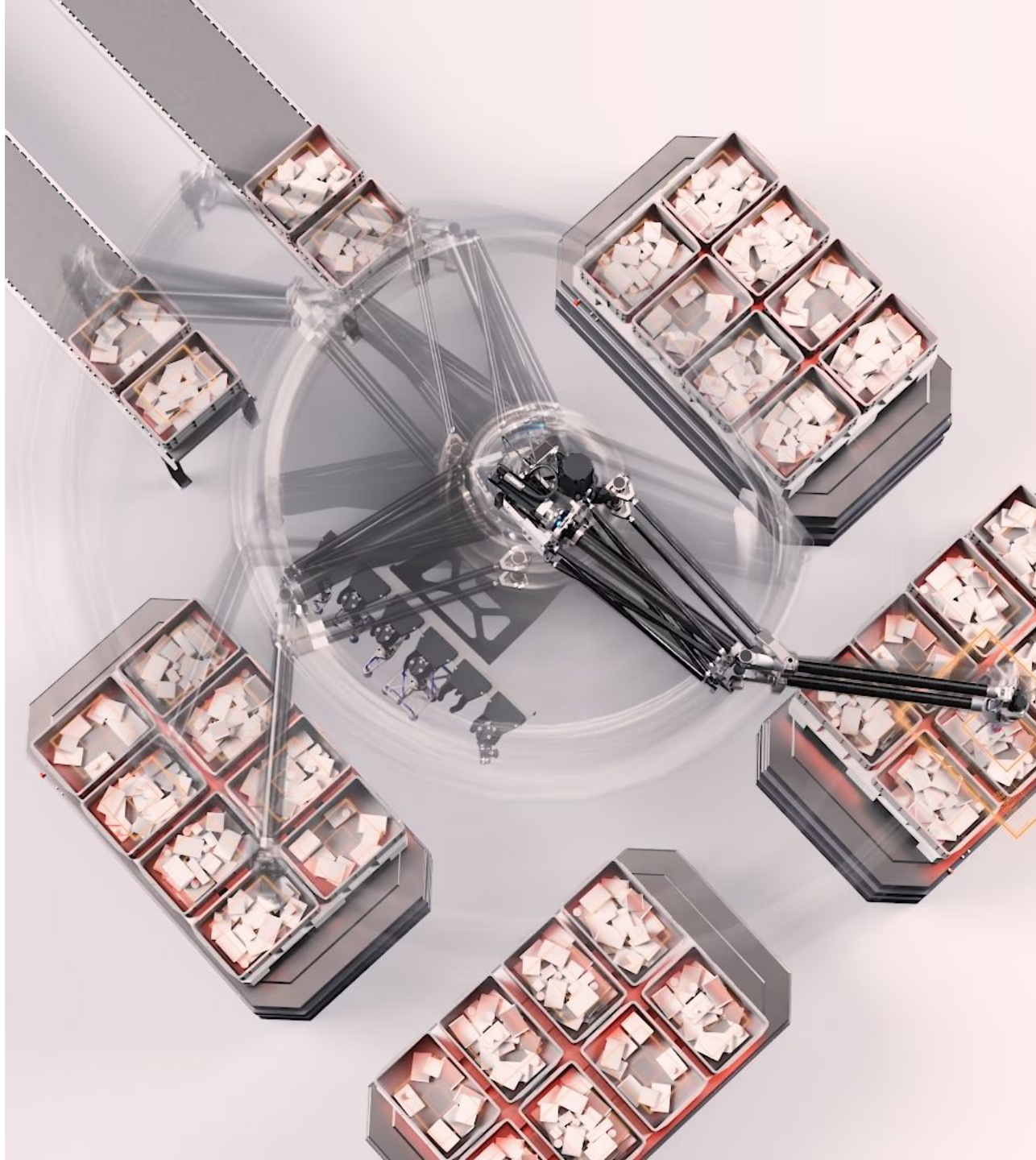


COGNIBOTICS

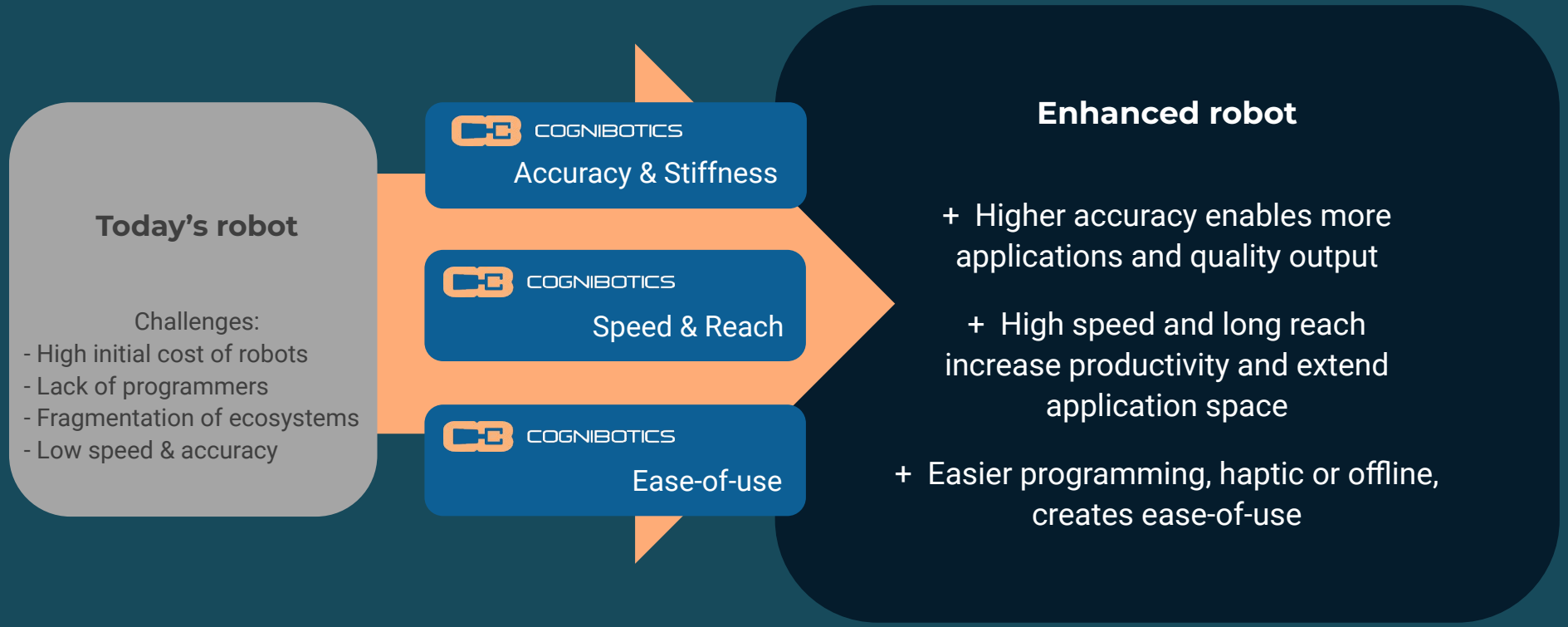
COGNIBOTICS

- Founded in 2013
- Spin-off from Robot Lab
- ~40 employees
- Ideon Alfa, M-House
- Motion control, calibration, robot language
- Making robots better!



Making robots more productive

COGNIBOTICS

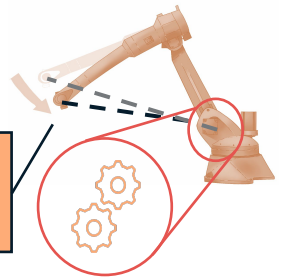


A new class of performance robotics

COGNIBOTICS

Motion Precision

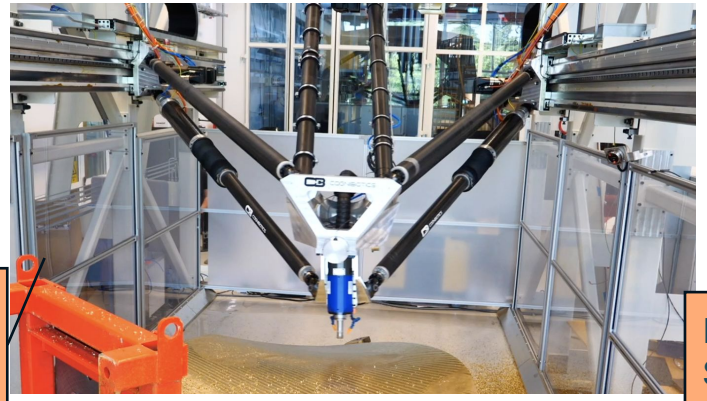
Increase Productivity by Accuracy, control software for robot-calibration and motion compensation



Accuracy
Ease-of-Use

SigmaTau

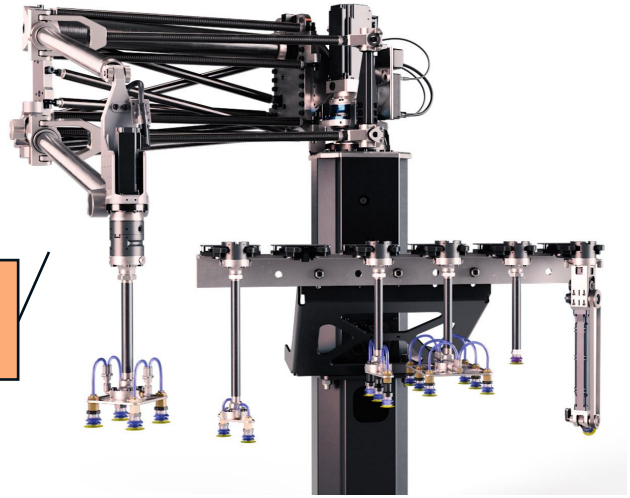
Lightweight robot system for high-speed machining and welding of large workpieces



Reach
Stiffness
Accuracy

HKM 1800

Long-reach pick-and-place robot for warehousing, logistics and machine tending

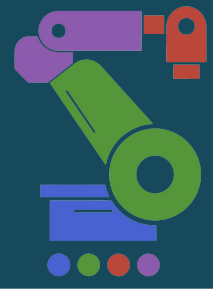


Reach
Speed

System Products

Software-defined robot, next generation of real time motion control, programming, and robot performance.

Common scalable motion platforms

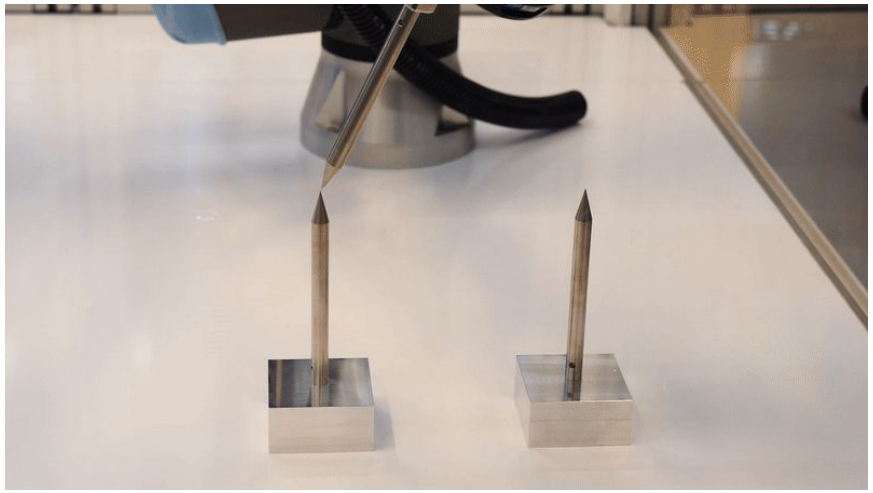


Ease-of-Use

A new class of performance robotics

COGNIBOTICS

Motion Precision



SigmaTau

HKM 1800

Juliet & Romeo

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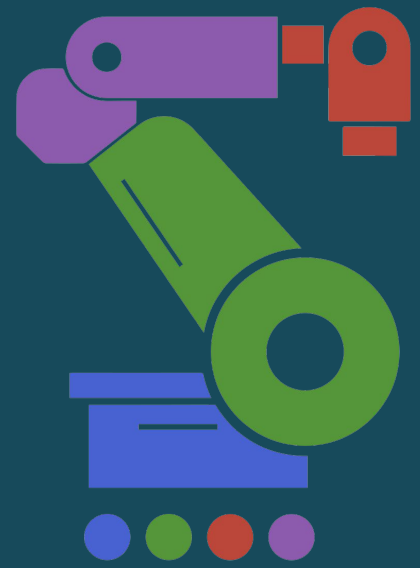
- Juliet
- Syntactically and conceptually similar to

- Robot programming
- Real-time capable
- Memory safe
- Compiles to bytecode
- RVM - Romeo Virtual Machine

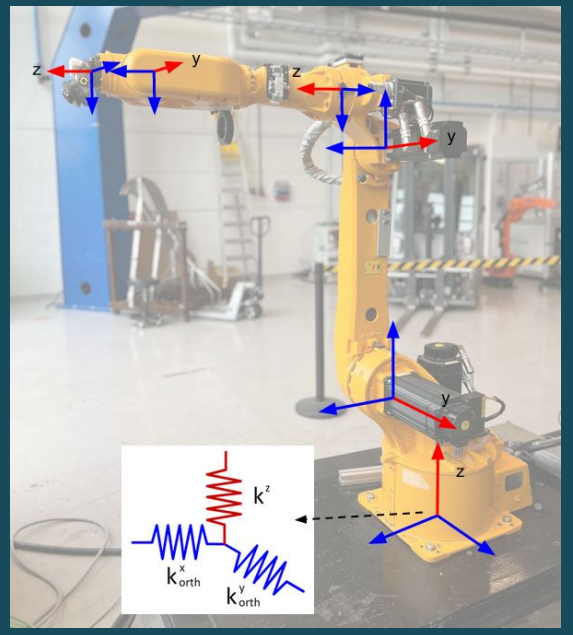


Master thesis

COGNIBOTICS

Past thesis subjects

- Building dense reconstructions with SLAM and Spot
- Automation of marking tasks at MAX IV using Spot
- Input shaping as a vibration damping method
- Anomaly detection for HKM robot using Machine Learning
- Optimization of object placement using constraint programming
- Event driven automation with Juliet



Master thesis

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Potential subjects

- Alternative architecture for a Motion kernel
- Harden code loader for the Romeo Virtual Machine
- Automatic logging and analysis of robot test cycles
- Optimizing pick and place behavior using ML
- Your interests!

Interested in master thesis, summer work or full-time work?

Contact us!

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- olle.hedbrant@cognibotics.com
- klas@cognibotics.com

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Thank You!