trinity

KMR EXTERNAL CONTROL MODULE

PRODUCTION MANAGER VERSION

www.trinityrobotics.eu

The TRINITY project has received funding from the European Union's Horizon 2020 research and innovation programme under the GA 825196

KMR external control module Production Manager version

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Training objective

This document provides a global insight of the module functionalities, requirements and adaptability in order to be used in production

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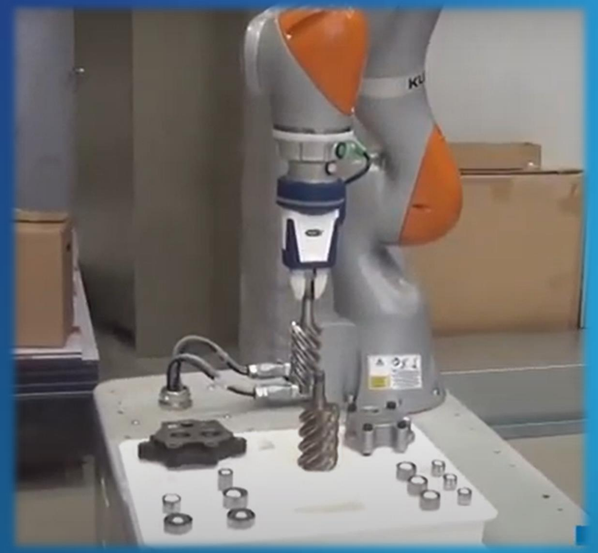
Module component

- Goal of module is support quick deployment of mobile robots in manufacturing operations
- Safe operation with humans on production floor
- Autonomous kitting in agile manufacturing or logistics
- Coping with variability in manufacturing processes
- Providing flexibility in assembly operations



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Module environmental requirements

- Module consists of external interface API for the KUKA KMR allowing easy integration with existing fleet or infrastructure on the shopfloor
- Being inherently safe, KMR mobile manipulator can work safely on the production floor alongside operators
- Maximum flexibility and unrestricted maneuverability. Manufacturing processes are subjected to continual changes giving edge to flexibility and adaptability of KMR
- Furthermore, the immense working range opens up a wide range of options for entirely new production concepts and increased cost effectiveness in logistics management

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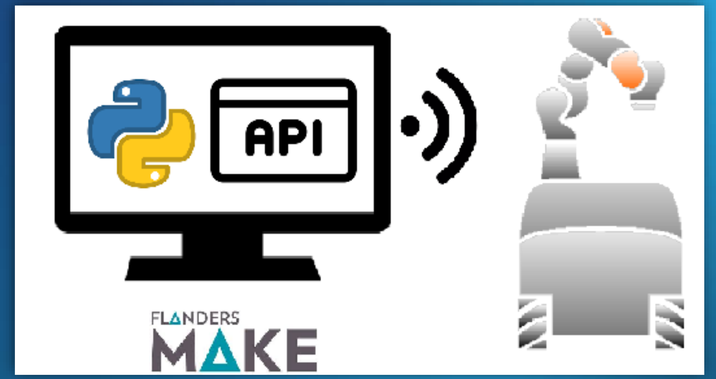
How to integrate this system with the rest of the production line?

- Both the position and the number of installed robots can vary, as are their size and their payload capacity.



- Higher level enterprise systems (MES, WMS, etc) can also be integrated with the developed interface.
- With the use of developed interface, robot can be easily integrated can interact with different existing automation components
- This module is suited for logistics, flexible manufacturing and production applications with low batch size and large product variance

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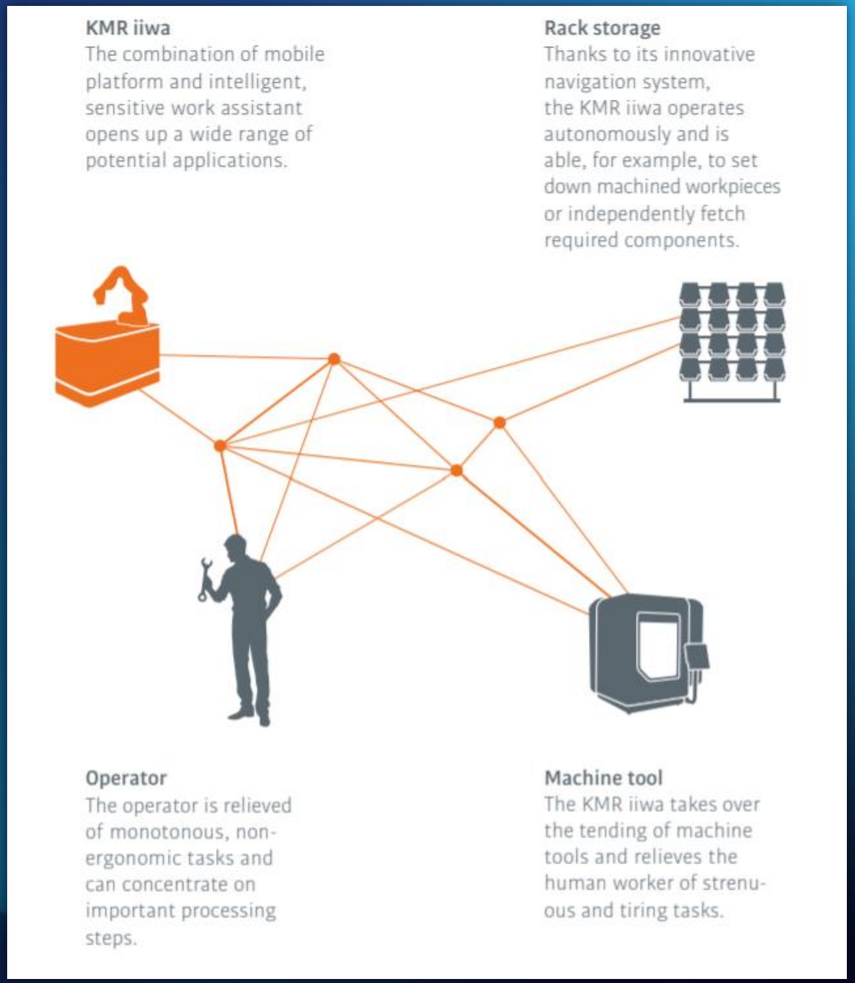
Adaptability of the system

- The module allows to easily:
  - Interface with KUKA KMR robot without the need of native programing
  - Adapt an existing program for a new product variant flexibly with easy reconfigurability through parametrized robot skills
  - Deploy mobile robots quickly without the need to KUKA experts

- Grippers, tools and special equipment can be easily mounted on the KMR iiwa and supplied with power.



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More information on the use-case and associated module is available in the Trinity official website

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Thank you!

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