

VOJEXT

COLLABORATIVE MOBILE COBOTS



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 952197

VOJEXT

“Flexible Integration of human-robot collaboration in electronic and battery production” webinar

Universidad Politécnica de Madrid

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Project Coordinator

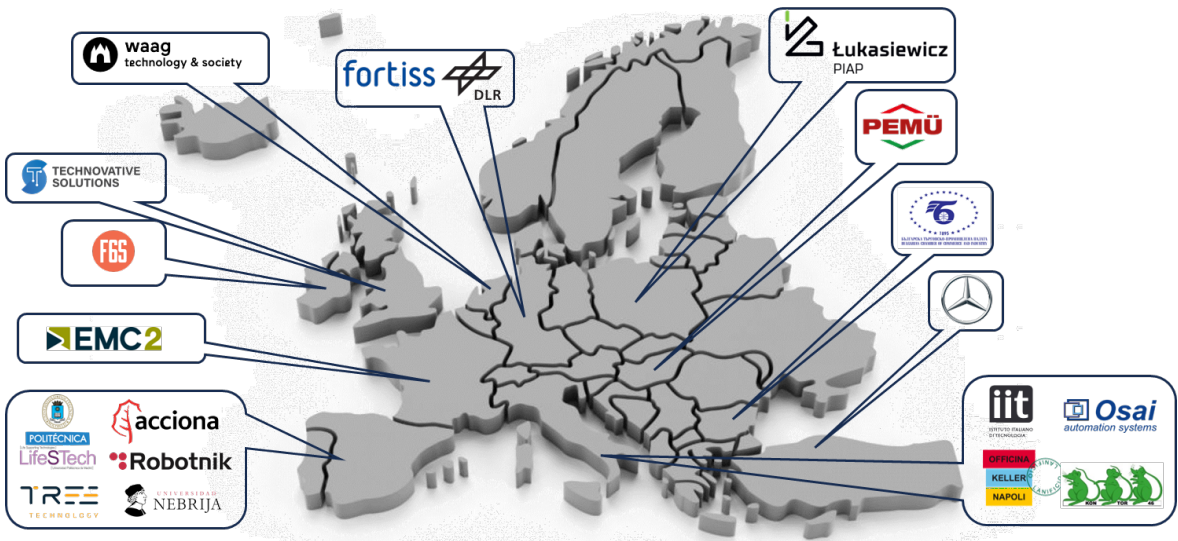
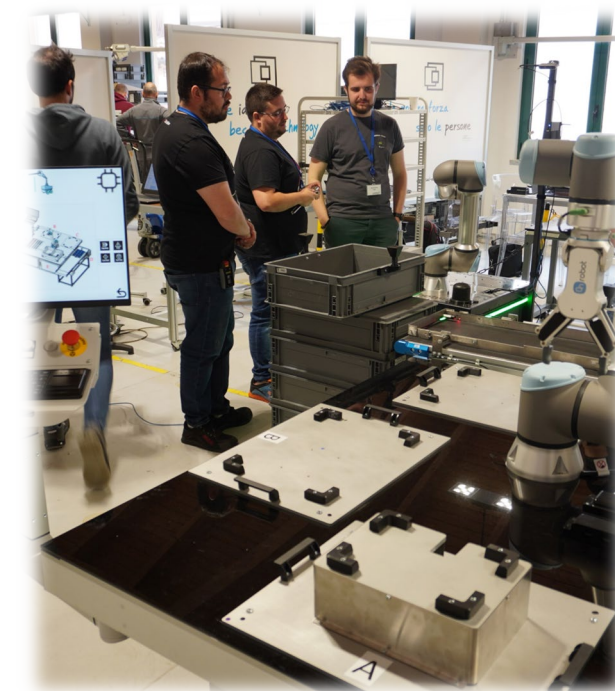
What is VOJEXT?



VOJEXT - EU H2020 funded project looking for **Value Of Joint EXperimentation in digital Technologies for manufacturing and construction sectors.**

VOJEXT aims at producing a set of **mobile robotic systems** aiming to enable **new ways of automation** (semi- or fully-automatic tasks) in a **CPS and human-robot collaborative environment** for:

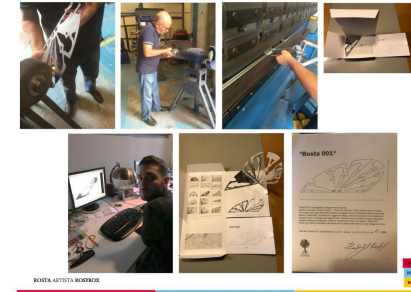
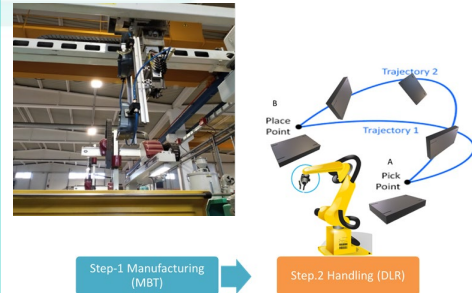
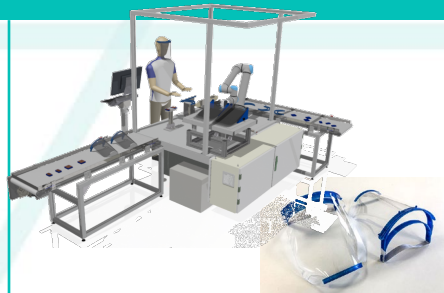
-  Coping with the demand for **flexible means of production**
-  Supporting **flexible configuration and repurposing and scalability** in functions)
-  Enabling a **favourable business and technological framework for cognitive autonomous systems**



How we are reaching our objective?

- 19 EU partners / 11 EU countries

5 USE CASES / 5 INDUSTRY DOMAINS / 4 COUNTRIES



Viscoelastic Polyurethane Pillow Handling

The robotized handling processes and automation of the online quality process will contribute to the reduction of human error in the process

PLASTICS (HUNGARY)



Electronics and fragile components

Improvement of the current concept of robotic assembly applied to electronics and COVID related production

ELECTRONICS (ITALY)



Automotive Smart Manufacturing

Improvement and feasibility of robotic hardware, integration of AI based software and efficiency improvements

AUTOMOTIVE (TURKEY)



Crafts, culture and creativity

Support the work of the community of makers, crafters and creative professionals.

CRAFTS (ITALY)



Building Construction (Wall Finishes)

Improved efficiency in construction processes.

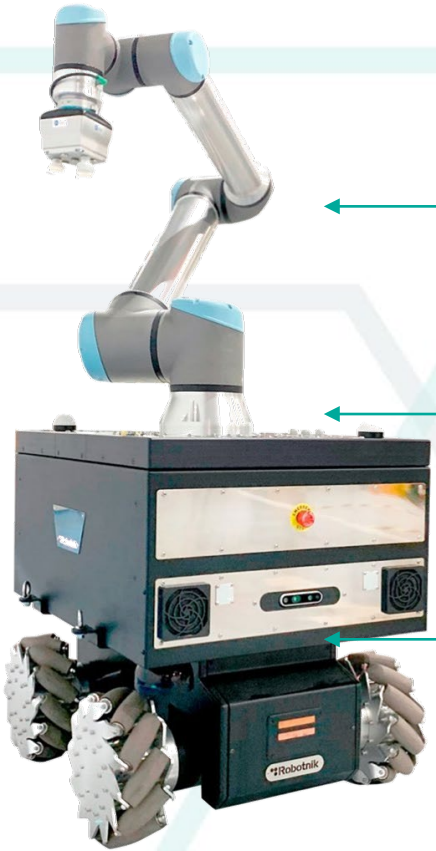
CONSTRUCTION (SPAIN)



VOJEXT System Architecture

Low Level control Modules

High Level Control Modules



ISIM
INTERACTIVE &
SENSORY INTERFACE
MODULE

PIM
PHYSICAL INTERFACE
MODULE

LOCEM
LOW-LEVEL CONTROL
ENGINE MODULE

PEM
PERCEPTUAL ENGINE
MANAGER

SIM
SOCIAL & INTERACTION
MANAGER

SEM
SAFETY & ERGONOMICS
MODULE

HICEM
HIGH-LEVEL CONTROL
ENGINE MODULE

LEM
LEAN AND EFFICIENCY KPIs DRIVEN
MODULE

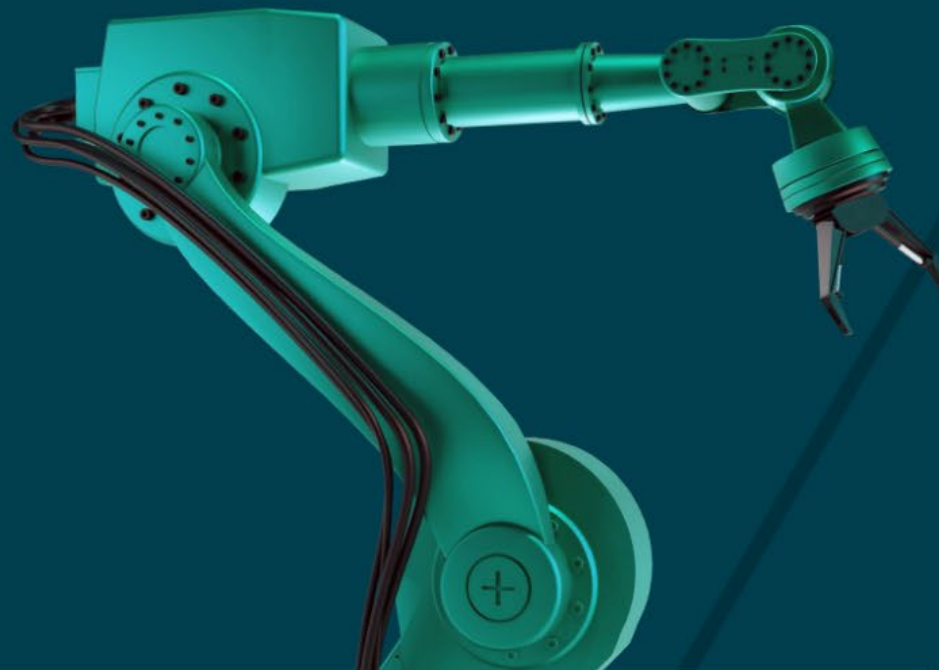
SKB
SHARED KNOWLEDGE
BASE

PEMKRE
PLANNING, EXECUTION AND
MANAGEMENT KNOWLEDGE
REASONING ENGINE

COLLABORATIVE MOBILE COBOTS

Value Of Joint EXperimentation in digital Technologies for
manufacturing and construction.

Thank you!



Stay tuned for
upcoming
sessions!

Next live
demonstration
25 October 2023!
In Hungary

Registration
coming soon

For more information:

www.vojext.com



[/vojext-project](https://www.linkedin.com/company/vojext-project)



[@Vojext](https://twitter.com/Vojext)

Email to: contact@vojext.eu

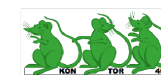


fortiss



EMC2

Robotnik



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