

1 ed. LIFE SCIENCE TTO NETWORK CONTEST

“Pay attention to the value of your research: the top 5 missed TT opportunities”

27 October 2023 (14.30-16.30)

c/o Human Technopole Foundation



A Multimodal device to
improve inclusive Interaction
between Cobot and Operator

Carla Dei – Product Designer – IRCCS Eugenio Medea



Project Description

STARTING POINT



In the context of **Industry 4.0** and **5.0**, collaborative robots (**Cobots**) started to be adopted in production lines.



NEW INTERACTION MODALITIES



(A)MICO aims to **improve the flow of communication** from collaborative robots (cobots) to humans, **explicitating the implicit information of the system** through visual and acoustic feedback.

GOALS

- Improving positive job experience
- **Workplace more human-friendly and accessible for people with ASD**

Project Description

CUSTOMIZED FEEDBACK SYSTEM



Human Operator

- MORE AWARE OF COBOT'S ACTIVITY
- GAINS CONTROL OVER THE SITUATION

CASE STUDY



Project Team



Carla Dei
Product Designer



Roberta Nossa
PhD Biomedical Engineer
Transfer Technology Office



Matteo Malosio
PhD Mechanical Engineer



Matteo Lavit Nicora
Mechanical Engineer



Fabio A. Storm
PhD Biomedical Engineer



Mattia Chiappini
Psychologist



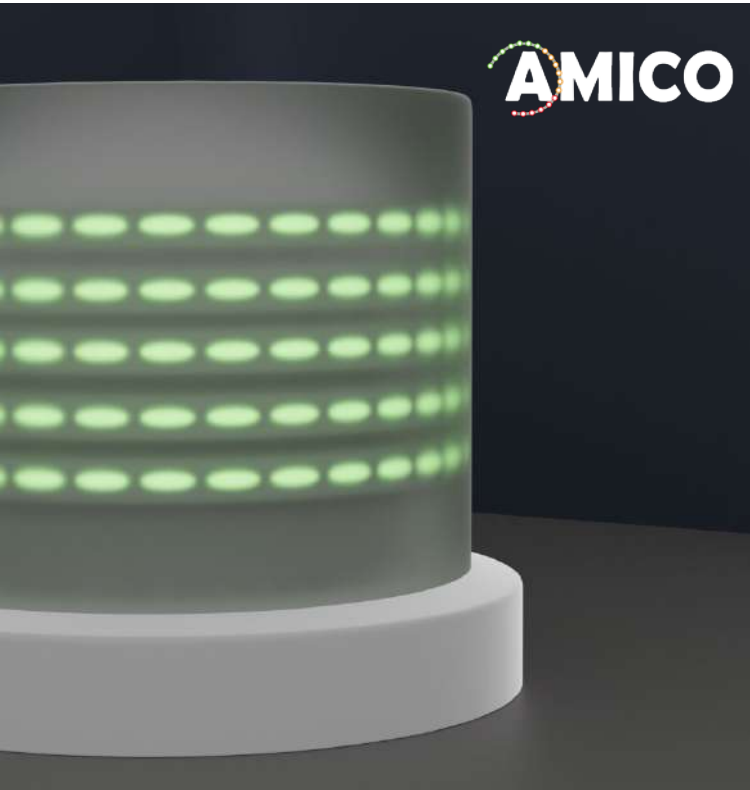
Matteo Meregalli Falerni
Mechanical Engineer



Carla Dei – Product Designer – IRCCS Eugenio Medea



Technology Readiness Level



TEST IN CONTROLLED ENVIRONMENT:
ASD volunteers involved

Group A: 3 ASD volunteers (1F and 2M) with **High Functioning Autism**

Group B: 12 ASD volunteers (2F and 10M) with **Low or Medium Functioning Autism**

TEST:

Working 5-7 minutes with cobot without (A)MICO + Working 5-7 minutes with cobot with (A)MICO + Semi-structured interview

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Thank You!

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