

How are the regulatory exceptions used in the Mobile Cobot Regulatory Free Zone?

TEST DEMONSTRATION PERIOD

December 1, 2020
~ November 30, 2022

1

Test demonstration of mobile cobots that work on the move which can be applied in the manufacturing and production process

Current situation

The use of mobile cobots that work on the move in manufacturing and production sites is not possible and only stationary operation is allowed due to the absence of mobile cobot safety standards

Improvement

Expand the scope of use of cobots in manufacturing and production sites and improve the production system of SMEs by allowing the use of mobile cobots that work on the move

Automated manufacturing process
(car lamp module)

Manufacturing process
(automobile door latch)

Large product production process
(pressure tank)

Small amounts of various automobile production processes
(parts welding)

Logistics warehouse management for electronic parts

2

Test demonstration of work done on the move by mobile cobots for untact service in shared living space

Current situation

The application of mobile cobots that work on the move in untact service work (pest prevention, sterilization) is not possible and only stationary operation is allowed due to the absence of mobile cobot safety standards

Improvement

Proactively respond to the demand for untact robot services and contribute to the expansion of the new robot market by allowing the use of mobile cobots that work on the move

Untact service in sharing living space
(pest prevention & sterilization site)

MOBILE COBOTS



Automated manufacturing process
(car lamp module)



Manufacturing process
(automobile door latch)



Large product production process
(pressure tank)



Small amounts of various automobile production processes
(parts welding)



Logistics warehouse management for electronic parts



Untact service in sharing living space
(pest prevention & sterilization site)

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Daegu Mobile Cobot Regulatory Free Zone



What is the Mobile Cobot Regulatory Free Zone?

It is a designated area for the expansion of the scope of use of mobile cobots and the promotion of the commercialization of robots that can coexist with humans through regulatory innovation of the robot industry, the future growth industry of Daegu



*What are mobile cobots?

It is a new product made by combining cobots and bogies using new technology which is anticipated to contribute to the revitalization of the robot industry by expanding the market not only to diverse and flexible manufacturing and production systems but also to professional services such as pest prevention and logistics

Where is the Mobile Cobot Regulatory Free Area located?

Daecheondong Dalseo-gu Daegu, etc.

8.3km²

Members of the Robotics Industry Cluster

Members of Seongseo Industrial Park

Members of Daegu Technopolis

Members of Suseong Alpha City



Members of Seongseo Industrial Park	Horimdong, Wolamdong, Daecheondong Dalseogu Daegu, etc.
Members of the Robotics Industry Cluster	Noweondong Buk-gu Daegu, etc.
Members of Daegu Technopolis	Yugaeb Dalseo-gu Daegu, etc.
Members of Suseong Alpha City	Daeheungdong Suseong-gu Daegu, etc.



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Daegu Digital Innovation Promotion Agency



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Daegu Mobile Cobot Test Demonstration Subjects



Test demonstration Name

Demonstration of mobile cooperative robots for the application of small amounts of various automobile production processes (parts welding)

Organizing Entity

YUSUNG PRECISION IND. CO., LTD.

Participating Institution

OPTIMUS NEXT GENERATION OF TECHNOLOGY,
DAEGU MECHATRONICS & MATERIALS INSTITUTE



Test demonstration Name

Demonstration of a mobile collaborative robot for application to large product production process (pressure tank)

Organizing Entity

Yujin Mechatronics

Participating Institution

YULIM FACTORY AUTOMATION,
DAEGU MECHATRONICS & MATERIALS INSTITUTE



Test demonstration Name

Demonstration of mobile cooperative robot for application of manufacturing process (automobile door latch)

Organizing Entity

PHA

Participating Institution

POWER TECH, ONE SYSTEM,
DAEGU MECHATRONICS & MATERIALS INSTITUTE



Test demonstration Name

Demonstration of mobile manipulator for uncontact service in sharing living space

Organizing Entity

Daegu digital innovation promotion agency

Participating Institution

ZETABANK(Robot AI Daegu Lab),
Huons Meditech, Unmanned Solution, DIGIST



Test demonstration Name

Demonstration of mobile collaborative robot for application of automated manufacturing process (car lamp module)

Organizing Entity

SL Corporation (Seongseo Electronics Plant)

Participating Institution

NGSOF,
Daegu Mechatronics&Materials Institute



Test demonstration Name

A project that builds, operates and evaluates a mobile cooperative robot for application of logistics warehouse management for electronic parts

Organizing Entity

AJINEXTK Co., Ltd.

Participating Institution

RADIX CO., LTD.,
Daegu Mechatronics&Materials Institute

- Strengthen the competitiveness of the manufacturing industry and open up new markets by expanding the scope of use of mobile cobots in the manufacturing industry
- Discover diverse new business models and spread the use of service robots through the application in service fields with potential for high growth
- Prepare safety standards for mobile cobots through test demonstrations and lead domestic and international standardization