SAFE

safety

The World First and only Safety Intelligence for Robot

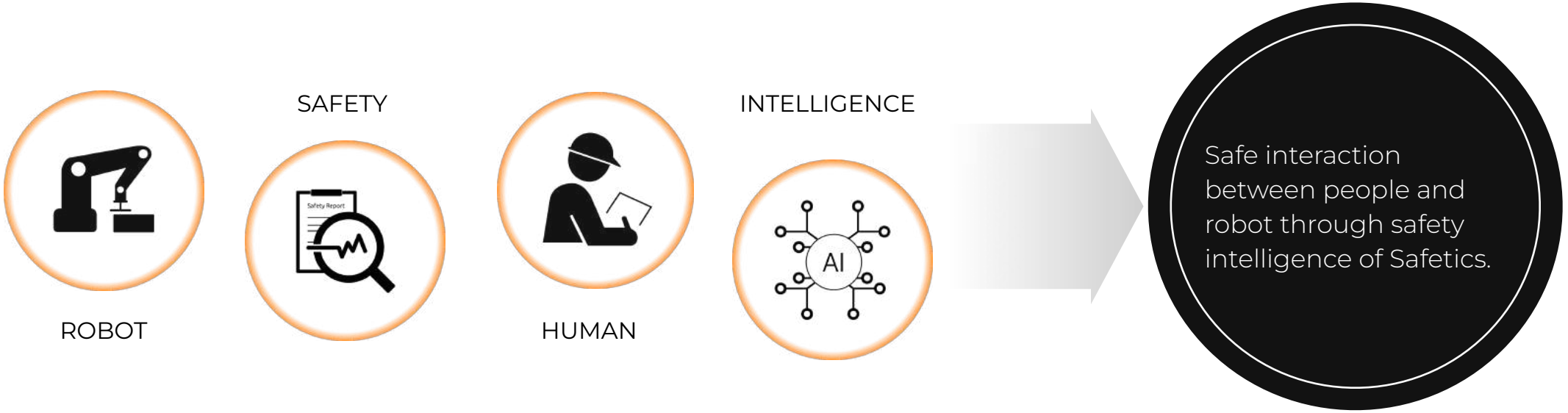
TICS

robot

analysis

Mission

Safetics develops robot safety intelligence to create a world where people and robots closely interact with each other.



Technology

Safetics develops a 'Safety intelligence technology' that allows robots to decide safe movements on their own. It analyzes safety and identifies risks by predicting the force and pressure generated when the robot collides with a person.

WE PROVIDE

Web-based software(Safety Designer) that implements 'Safety intelligence',
Robotic Built-in Safety Intelligence Unit(SafetyGiver),
And professional and systematic Online-Consulting Service.

Product |

SafetyDesigner, SFD

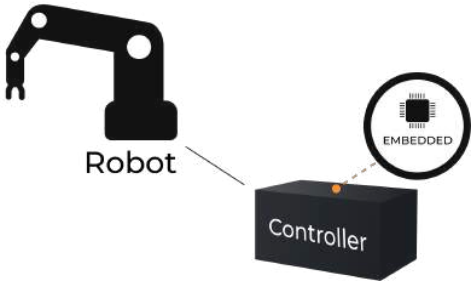
Web Software

For Robot End-User & System Integrator

Web-based software(Safety Designer)
that realizes 'Safety intelligence'

SafetyGiver, SFG

Embedded Software

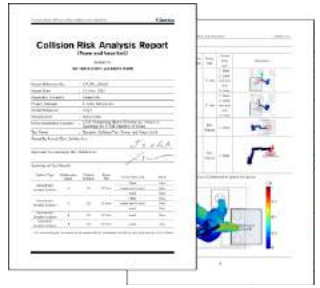


For Robot Maker

Robotic Built-in Safety Intelligence Unit

Service |

Online-Consulting Service



For Robot End-User & System Integrator

Providing A to Z services for the introduction
of collaborative robots, from process design
to collision risk analysis report

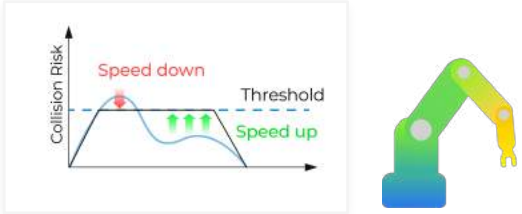
PRODUCT

SafetyDesigner

Web-based robot collision risk analysis solution

01 Safety-based Optimum Process Design prior to Robot Installation

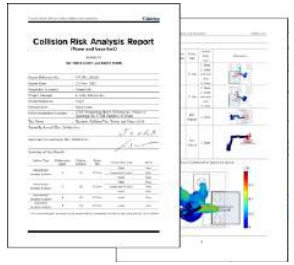
Recommendation of optimal recommended speed that satisfies international standard!
Secure both the performance and safety of the robot at the same time!



SafetyDesigner (SFD)

Web based Software For Robot User

02 Automatically Print Robot Collision Risk Analysis Report



03 Conveniently Share Process Design through Web-based Solution

Reduce installation time through 3D layout based intuitive communication!
Supports smooth communication between robot SI and robot user!

04 3-Step Simple Instructions

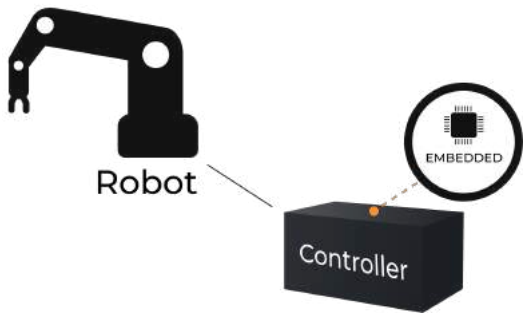
Easy configuration for anyone to use!

PRODUCT

SafetyGiver

Robotic Built-in Safety Intelligence Solution

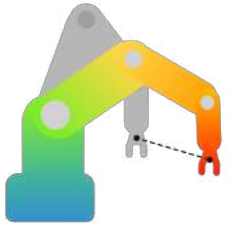
Mounted on robot internal controller

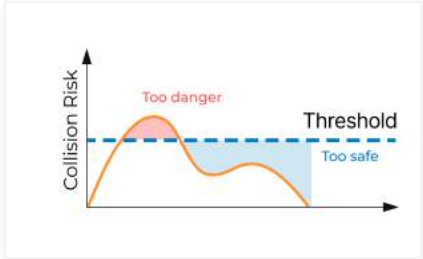


SafetyGiver(SFG)

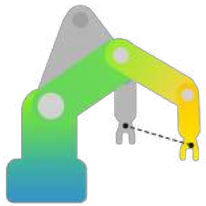
Embedded - Software
For Robot Maker

Real-time risk monitoring based on International Standards (ISO)



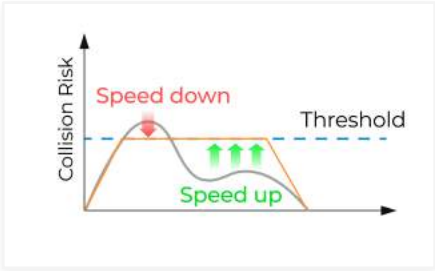


Real-time optimal speed control based on safety and productivity



' Safety Mode '

On

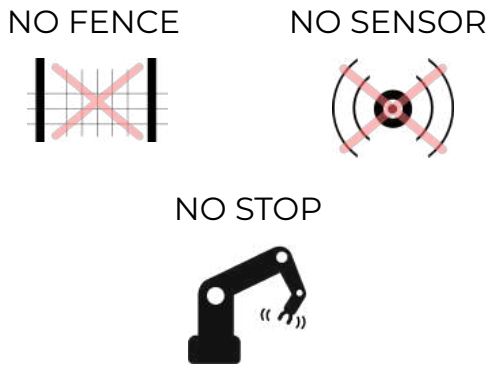


SERVICE

Online-Consulting

A to Z Service for Introduction of Collaborative Robot

Design and Proposal of Collaborative Operation Process



- Process planning and analysis
- Establishment of risk assessment and reduction measures
- Design phase safety concept and maximum speed application proposal
- Collision risk analysis

Selection of Safety Management Methods

- Third party (Installer) certification
  or
  Self declaration certification
- Documentation support
  - Provide collision risk analysis report
  - Provide risk assessment report

Sign Contract with Safetics

- Technical support for entire procedure

Apply for safety certification

▼

On-site inspection

▼

Obtain safety certification

▼

Safety inspection PASS

WHY US ?

Reasons for choosing Safetics

Both safety and productivity can be secured by utilizing collaborative robot without fence, sensor, and stopping through the safety intelligence software 'SafetyDesigner' and safety evaluation service 'Online-Consulting Service'.

01 Collision Safety Evaluation based on International Standards (ISO)

02 Save Time & Cost

03 Smooth Collaborative Operation between People and Robot

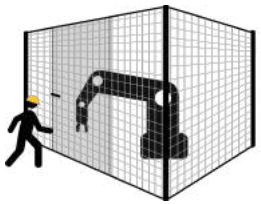
WHY US ?

Satisfy International Standards (ISO)

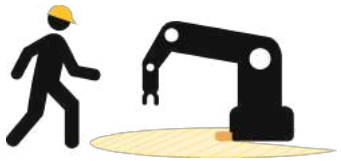
ISO 10218-2 : Standard for Robot Safety Useage/Installation

When operating a robot without a fence, it imposes an 'obligation to prove safety under unintentional collisions' on robot operators

ALL STOP



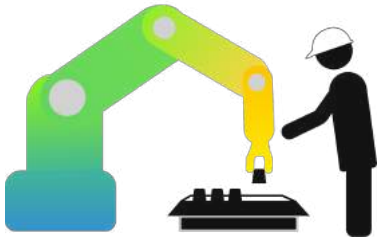
with FENCE



with SENSOR

Satisfy International Standards (ISO 10218-2)

NO STOP



with Safetics

WHY US ?

Save Time & Cost

Without the need for physical collision experiments, collision simulations can accurately predict risks for various collision scenarios, and design optimal robotic processes before installing the robot.

	Experiment	Simulation
Verifiable Collision Scenarios	A few & Limited	*All possible  Verification is possible according to changes in various conditions such as robot / gripper / motion
Process Design Function (Cylce Time Optimization)	✕	✓
Verifiable Timing	Only after installing robot	Anytime
Cost	Very expensive	Reasonable

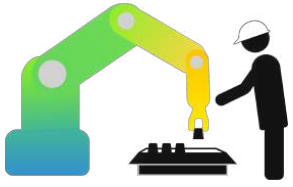
WHY US ?

Realize Smooth Collaborative Operation between People & Robot

Using collaborative robots through safety analysis between humans and robots can not only ensure safety but also improve work productivity because people and robots can work closely.

Effect of Collaborative Robot

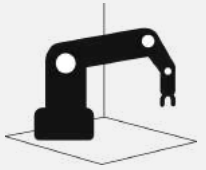
Introduction through Collision Safety Analysis



Secure Safety
&
Improve Productivity

Analyze Safety before Robot Installation

- Implement optimal design
- Minimize extra cost



Minimize Robot Installation Space

Increase Production Efficiency

- Easy to change the process
- Enable efficient staffing

Increase Product Quality

Improve Work Environment

Increase Job Satisfaction

WITH US

Our Partnership

Through collision safety analysis technology, Safetics is helping to develop collaborative processes that can ensure both safety and productivity at various industrial sites.

USE CASES

Safety Certification Application Cases

Service Field |

Lounge Lab XYZ

Brownbana Icecream Robot

Third party certification
acquired

"By applying safety intelligence solution of Safetics, not only that we were able to secure safety but also work efficiency"

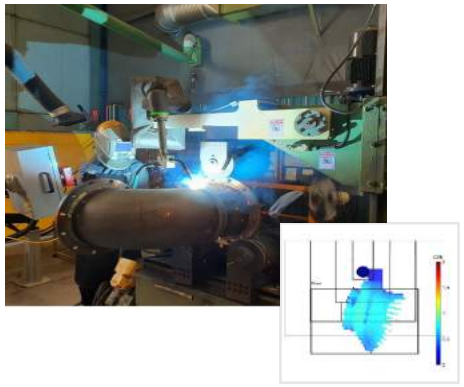
- Lounge Lab CEO Hwang Seong Jae

Industrial Field |

Daewoo Shipbuilding & Marine Engineering Co., Ltd DSME 대우조선해양

Carbon steel pipe (ship pipe adjuster) welding robot

3rd party certification acquired for the first
time in the welding process



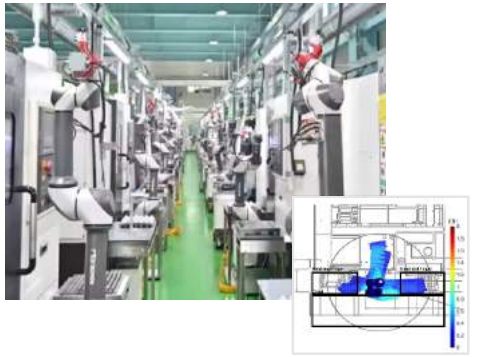
"For precise welding, workers can work close to the robot, reducing their working time by 60 percent and improving worker fatigue.
We will apply it not only to ship piping but also to general piping."

- DSME senior researcher Kim Dong Young

STS Robotech STS (주)에스티에스로보테크

Machine Tending Process Robot

Most robots (127 units) applied
Safety verified through Self-declaration



"By replacing the CNC manual process with a collaborative robot, we were able to increase it from three machine tools per person to eight. Overall, productivity has improved by 40-50%."

- STS Robotech CEO Kim Ki Hwan

WE ARE

Robot safety solution development startup

2003 - Present

- Participated in ISO robot standard establisment
- Specialist on KS Standards

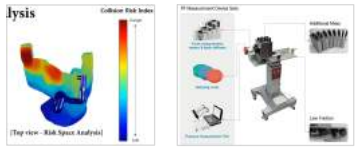
2011

ISO 10218-1,2
Amendment on
Industrial robot
standard

2015 - Present

Kyunghee Medical Center and
robots - human collision clinical trial
Joint research (government-funded
projects)

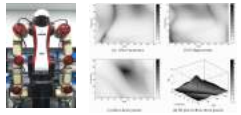
Development of world's first AI-based collision
risk estimation algorithm and
collision evaluation device for collaborative robot



2019

2022

SafetyCore
ISO 13849-1(PL d)
certification acquired



2011 - Present

Performed a number of R&D tasks in
the field of robot safety technology,
including 7 R&D tasks in the field of
robots (development of dual arm
robots)

2013

World's first
collaborative robot
field installation
(Germany)

2011 - 2016

ISO/TS 15066
Participation in establishing safety
standards for collaborative robots

Safetics

Spin - Off based on the
research results of
Kyung Hee University's Robotics Lab

2020.01

2023

Launched
simulation-based
collision safety
evaluation program

CERTIFICATION

Safetics is committed to researching and developing safety intelligence to evaluate and improve the safety of robots. In the end, the technology of Safetics was recognized for its differentiated expertise.

Domestic Patent Registration

(No. 10-1976358, Robot Safety Improvement Method)

2019.05

Domestic Patent Registration

(No. 10-2003126, Robot Safety Evaluation Method)

2019.07

Investment Attraction

Initial investment from Naver

2020.09

Attracted around $860000 in investment from Naver and Big Basin Captial

2022.05

Certified of Venture Company

2020.12

“The Super Solution” By ISO

2021. 02

Korea Robot Industry Promotion Agency

ISO 10218-2 PFL mode Korea's First Case of Collaborative Robot Safety Certification

2021.08

Winner of the Minister of Science and ICT Award

2020.05

RoboworldSelection of Excellent Product

2021.10

Selected as Korea's Robot Company of the Year

2021.12

Until the day we can safely coexist with robots through robot safety intelligence

Safetics is with you

SAFETICS

safety robot analysis

Contact us
info@safetics.io