Asimovo

A cloud - based platform for developing and testing robots

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platform
for developing and
testing   robots

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Pushing possibilities in
VISION, ROBOTICS & MOTION
07 & 08 JUNE 2023 | BRABANTHALLEN | 'S-HERTOGENBOSCH (NL)
VISIT US AT STAND: 0000
More information: www.vision-robotics.nl

MIKRO
CENTRUM

Our Founders &
Leadership team

Christine Fraser, CEO & Founder

Ludo Stellingwerff, Chief Technical Advisor

Aad Nales, Business Builder

Marieke Peeters, Chief of Artificial Intelligence

Réka Bérci - Hajnovics, Robotics Engineer

We believe in a world where everyone benefits from the positive influence robots bring

Asimovo is on a mission to create a platform where you can develop robots that we trust, and want, to be part of our everyday lives
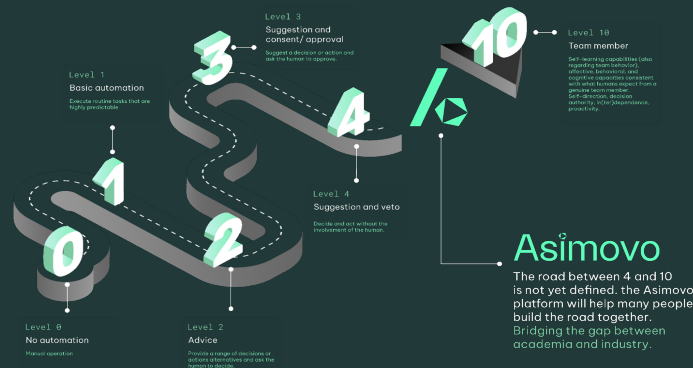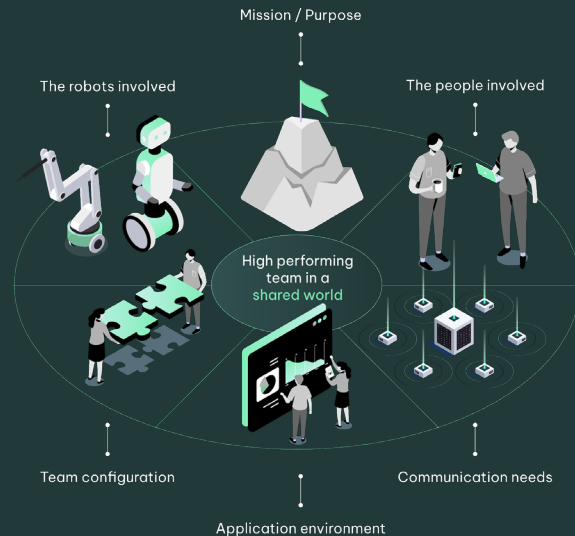
"Teams of the future will consist of humans and robots working in synergy, unleashing unparalleled, powerful performance levels."

Marieke Peeters
Chief of Artificial Intelligence

Download our Vision White Paper to find out more

Mission / Purpose

The robots involved

The people involved

High performing team in a shared world

Team configuration

Communication needs

Application environment

Level 3
Suggestion and consent / approval
Suggest a decision or action and ask the human to approve.

Level 10
Team member
Self-learning capabilities (also regarding team behavior), affective, behavioral, and cognitive capacities consistent with what humans expect from a genuine team member. Self-direction, decision authority, interdependence, proactivity.

Level 1
Basic automation
Execute routine tasks that are highly predictable

Level 4
Suggestion and veto
Decide and act without the involvement of the human.

Asimovo
The road between 4 and 10 is not yet defined. the Asimovo platform will help many people build the road together.
Bridging the gap between academia and industry.

Level 0
No automation
Manual operation

Level 2
Advice
Provide a range of decisions or actions alternatives and ask the human to decide.

Robots will become part of everyday life - are we ready?

Robots becoming >90% software, and getting smarter

<10% Physical

Most robotics tools are still focused on developing the Robot hardware.

New tools are needed to develop the higher order levels of robots

Trustworthy?

There are legal requirements to operating robots in public and work environments. These requirements will only get tougher
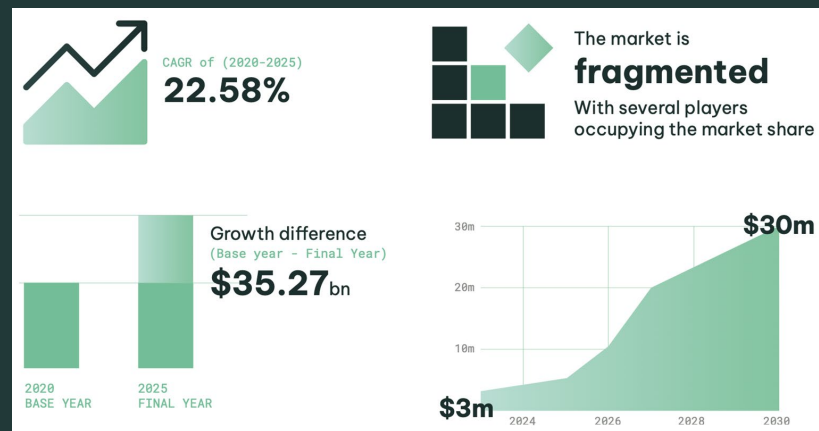
Who decides what is trustworthy?

Highly Skilled

Robots are expected to get become more autonomous in various aspects,. however there is no firm agreement from the robotics community what those higher levels of autonomy should be.

There is a need for Robotics DevOps

Robots will become integrated into how we work, live and play

1. The robot market is growing fast (>20% CAGR)

1. There are not enough robotics engineers (~200K globally)

1. The standard tools and ways of working are not scalable

CAGR of (2020-2025)
22.58%

The market is **fragmented**
With several players occupying the market share

Growth difference
(Base year - Final Year)
$35.27bn

2020 BASE YEAR
2025 FINAL YEAR

$30m
30m
20m
10m
$3m
2024 2026 2028 2030

Service Robot global market, this includes both professional and personal robots. This does not include Industrial robots. Different sources quote slightly different numbers. See our white paper for all references

Driving principles

Ideation

Empower creativity and innovation through the Asimovo platform, do not constrain it

Simulation

Use Simulation together with cloud computing to power an iterative development process

Collaboration

A platform for the robotics community. Where many can develop using integrated tools and systems

Realisation

Enable Autonomy in Robots – with best practices in training and developing autonomous systems

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Your Robotics DevOps   Solution

Asimovo empowers engineers to collaborate by providing a platform that enables them to use simulations to develop and test their robots.

We provide open access and secure protocols for connecting real robots.

Making it a one stop shop for developing robots.

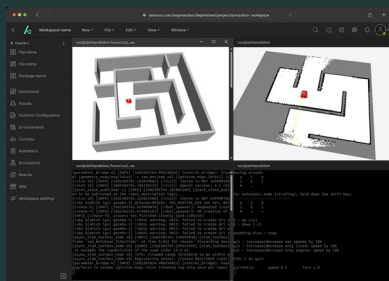## Share and collaborate easily
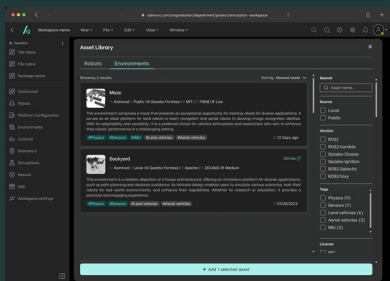
Pick from our library of parts or upload your own:

- Robot body
- Components & Sensors
- 3D worlds
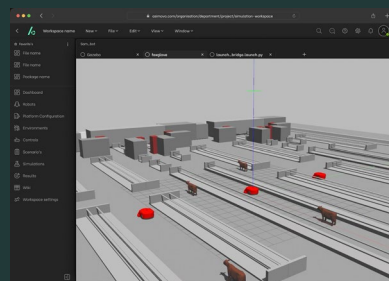- Python libraries
- Scenarios & missions

Access full robotics toolkit

All your working windows available in one platform

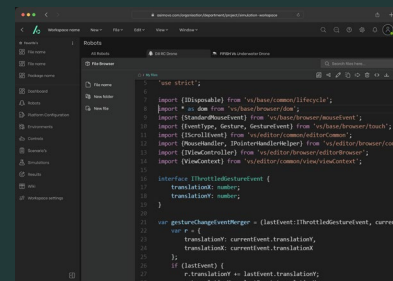- ROS
- Gazebo
- Sensor data
- Code in Python & C++

De- risk projects with scenario testing

Train your robot using simulation

- Standard tests to prepare your robot to be more autonomous
- Reduce risk and time to market
- Train single and/or multiple robots

Transfer between digital and real world easily

Transfer high level control to the robot body by changing one line of code

- Transfer from digital to real world seamlessly
- Upload real sensor data
- Real time remote troubleshooting
- Support hardware - in- the - loop testing in our premium setup1
- Reduce in field downtime with predictive maintenance

Our platform is feature-rich to enable you to:

Set up **cloud-based** projects

Share and **collaborate** easily

Iterative development

Access the full robotics toolkit all in **one platform**

Automated scenario testing

Transfer code to robot hardware easily

De-risk and train using **simulation**

Visualise **real data** in the platform

You have your own private workspace to develop and collaborate

Each workspace has:
- Your own private storage and asset library
- Personal simulation instances
- Workspace tools: dashboard, wiki, file-management, and terminal- access to the simulations

Collaboration and sharing is an active process: You decide who you're teaming with.
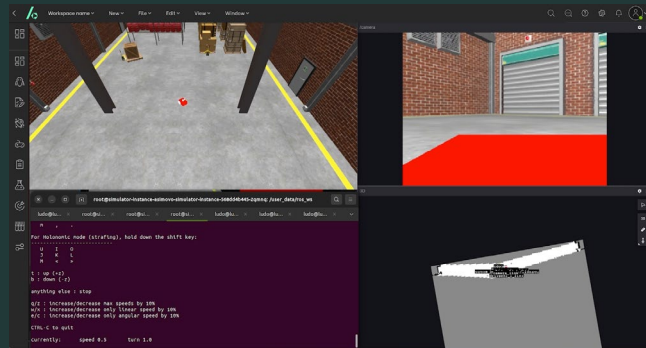
▷ Familiar tools, adhere to online knowledge and tutorials

⊕ Scalable and flexible resources for simulation

👍 Supports ROS2, Gazebo (Humble), PX4 in freemium accounts.
Other simulators, controllers, and tools can be made available.

💼 Focus on shareable, collaborative assets: hardware, environments, control systems, scenarios

"Bring your *personal development environment* to the cloud, alleviating the need for setting up complex tools and infrastructure. This allows you to focus on the *robotic development*, instead of on the tooling. It's our challenge to make this migration as fluent and painless as possible. "

Ludo Stellingwerff,
Chief Technical Advisor

Time to get real:

A [live preview]() of the Platform

Four tiers to getting started

1/ Freemium

Share and Collaborate, up to a team of 3

access to basic asset libraries -
hardware components &
simulation environments

ability to set up projects with
initial simulation credits

store the projects and
associated results

2/ Essential

Everything in Freemium with
additional

members up to a team of 10

additional ROS distributions

1000 simulation credits

storage for all your projects

3/ Core

Everything in Essential with
additional

members up to a team of 50

new libraries & assets, and full
scenario planner

4000 simulation credits

parallel simulation running

dedicated robotics support

4/ Enterprise

Everything in Core with additional

ability to customise your package

Ability to control the geographic
location of the hosting

ability to request tool integrations
or custom asset builds

collaboration features, and the
ability to integrate deeper into
your existing tools

dedicated full support package

Getting started today

Sign up now to participate in our Beta group

Scan the QR CODE
or go to
asimovo.com/getting started

Sign up for a free launch account

Include AsimovoTrial in your signup message

Be upgraded to freemium account once available

Beta groups running throughout June & July and converting to freemium accounts in the summer

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