

# Press Kit

2021

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arculus



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# Who we are

arculus is a software and robotics company from Munich offering the first complete modular production system from concept to operations. We use AI-powered software and autonomous mobile robots to transform the traditional production line into a scalable, flexible grid of assembly stations – allowing each product to follow an individual path only through relevant stations.

We offer a one-stop solution for Modular Production and automated plant logistics brings the physical and digital world together and consists of four modules:

Modular Production – A real-time controlled software platform for flexible product flow

Warehouse – Automated Goods-to-person software for material handling

Fleet – An intelligent traffic management platform

arculee – Our autonomous mobile robot (AMR)

Thereby we enable every company to fulfill any customer demand with ease and efficiency with a new level of simplicity and a seamless plug & play experience that puts the operator into control.



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The logo for arculus, featuring the word "arculus" in a stylized, lowercase, sans-serif font. The letters are white and have a modern, rounded appearance. The 'a' and 'r' are connected, and the 'u's and 'l's have a distinctive shape.



# Key Facts

COMPANY

2016<sub>est.</sub>

4<sub>offices</sub>

70+<sub>team</sub>

SELECTED  
CUSTOMERS



PORSCHE

SIEMENS

VIESSMANN

INVESTORS  
& ADVISORS

atomico°

VISIONARIES  
CLUB

LA FAMIGLIA

SPARK

FLIXBUS

AUTO1  
GROUP

N26

GET  
YOUR  
GUIDE

PRESS

Bloomberg

Wirtschafts  
Woche



Frankfurter Rundschau

Handelsblatt

# Management Team



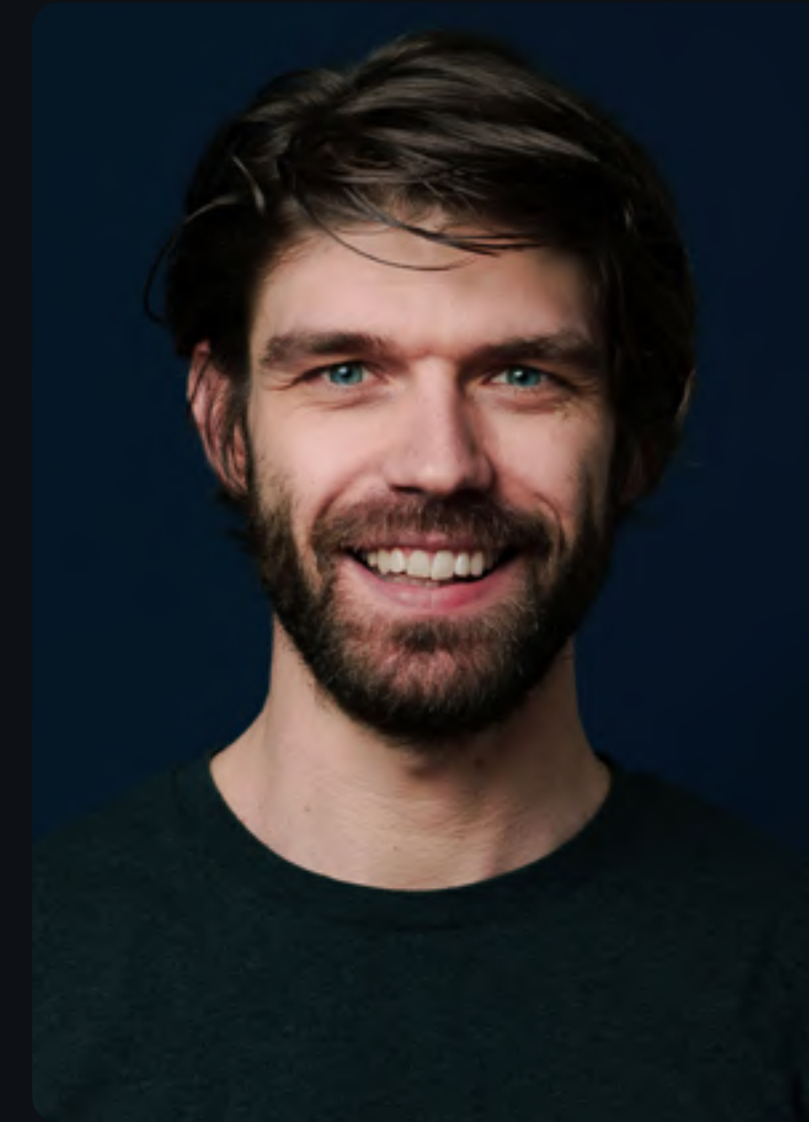
Dr. Fabian Rusitschka  
CEO



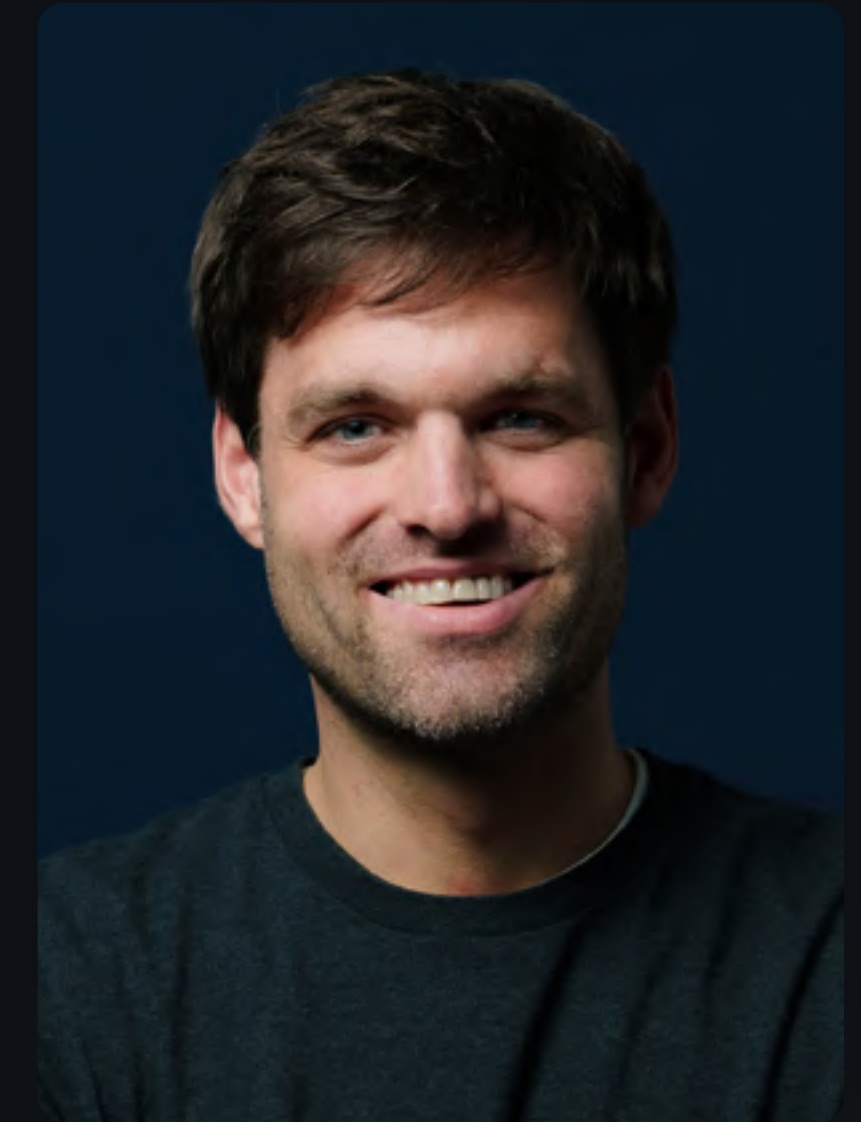
Frank Hempel  
CTO-Software



Max Stähr  
CTO-Robotics



Carlo Fitz  
COO



Dr. Rainer Filitz  
Executive in Residence



# Our Vision & Mission

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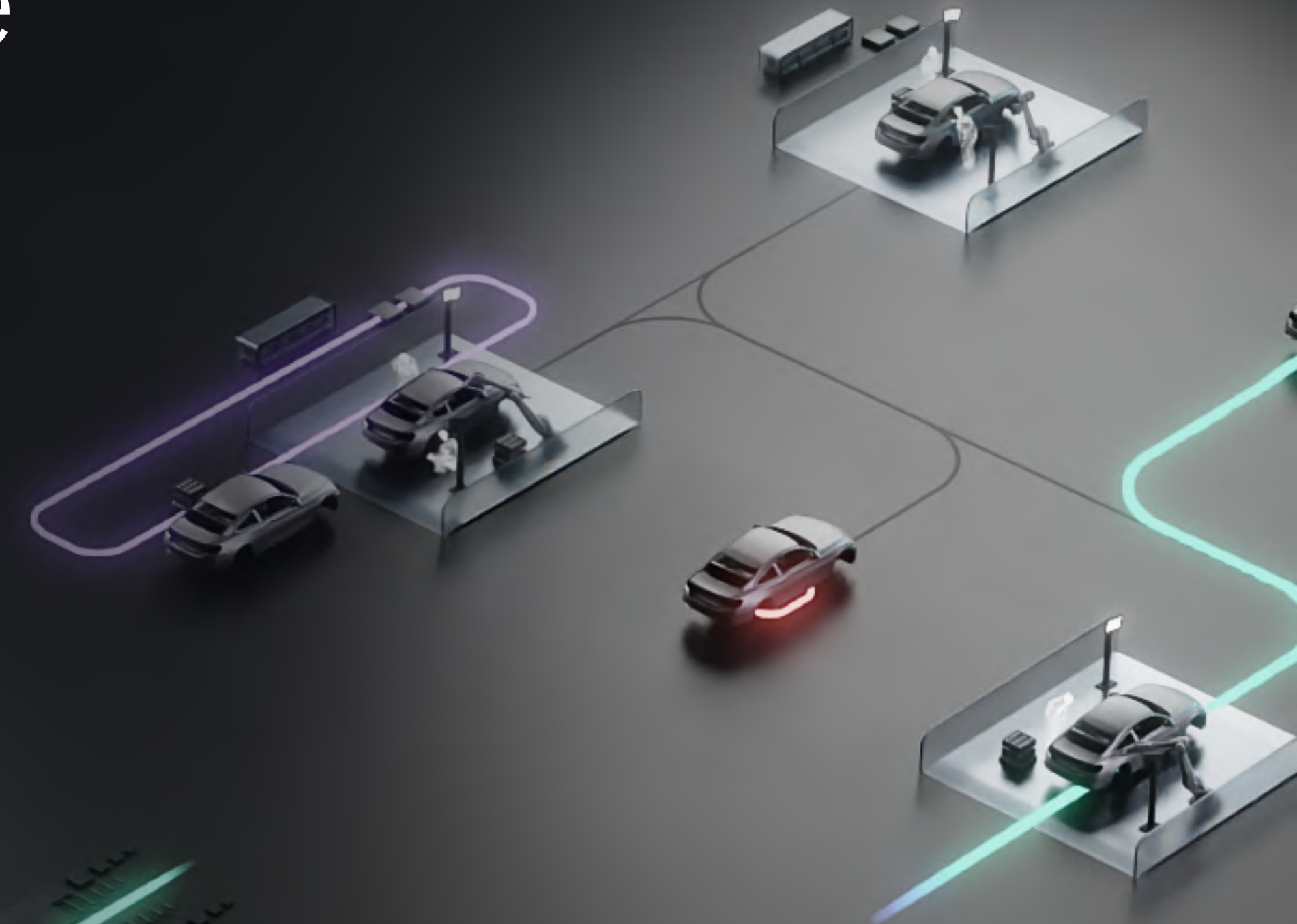
## VISION

# Make individual products accessible to each and everyone of us

arculus is founded on the belief that manufacturing is in need of a new, flexible, future-proof way to adapt to the uncertainties and individual customer demands of an ever-changing global economy.

We imagine a world where end consumers enjoy more individual and economic products with shorter delivery times. A world where the right amount of products are manufactured locally and decentralized thereby more sustainable. A world where any customer demand can be fulfilled with ease and efficiency.

In our vision modular production as a new standard for manufacturing will enable companies to manufacture more individual and economic products with shorter delivery times.





# Driving the world's transition to a flexible, efficient and sustainable way of manufacturing

To keep up with the changing customer demands of a global economy, manufacturing needs to evolve, from the past into the future. We see it as our mission to be the driving force of the world's transition to a flexible, efficient and sustainable way of manufacturing.

Modular Production will enable every manufacturing company to manufacture with more flexibility and scalability. Through its real-time controlled software platform product variants can move in a flexible and independent way through the production process.

A new dimension for manufacturing that enables companies across industries to fulfill any customer demand with ease and efficiency.

# Our Product

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# Overview

arculus offers a one-stop solution for Modular Production and automated plant logistics: A real-time controlled software platform for flexible product flow, goods-to-person material handling and open fleet management that seamlessly integrates our autonomous mobile robot, arculee, or any 3rd party robot.

REAL-TIME CONTROLLED  
SOFTWARE PLATFORM



Modular Production

REAL-TIME OPTIMIZED PRODUCT FLOW



Warehouse

AUTOMATED GOODS-TO-PERSON



Fleet

INTELLIGENT TRAFFIC MANAGEMENT PLATFORM

AUTONOMOUS MOBILE  
ROBOT (AMR)



arculee

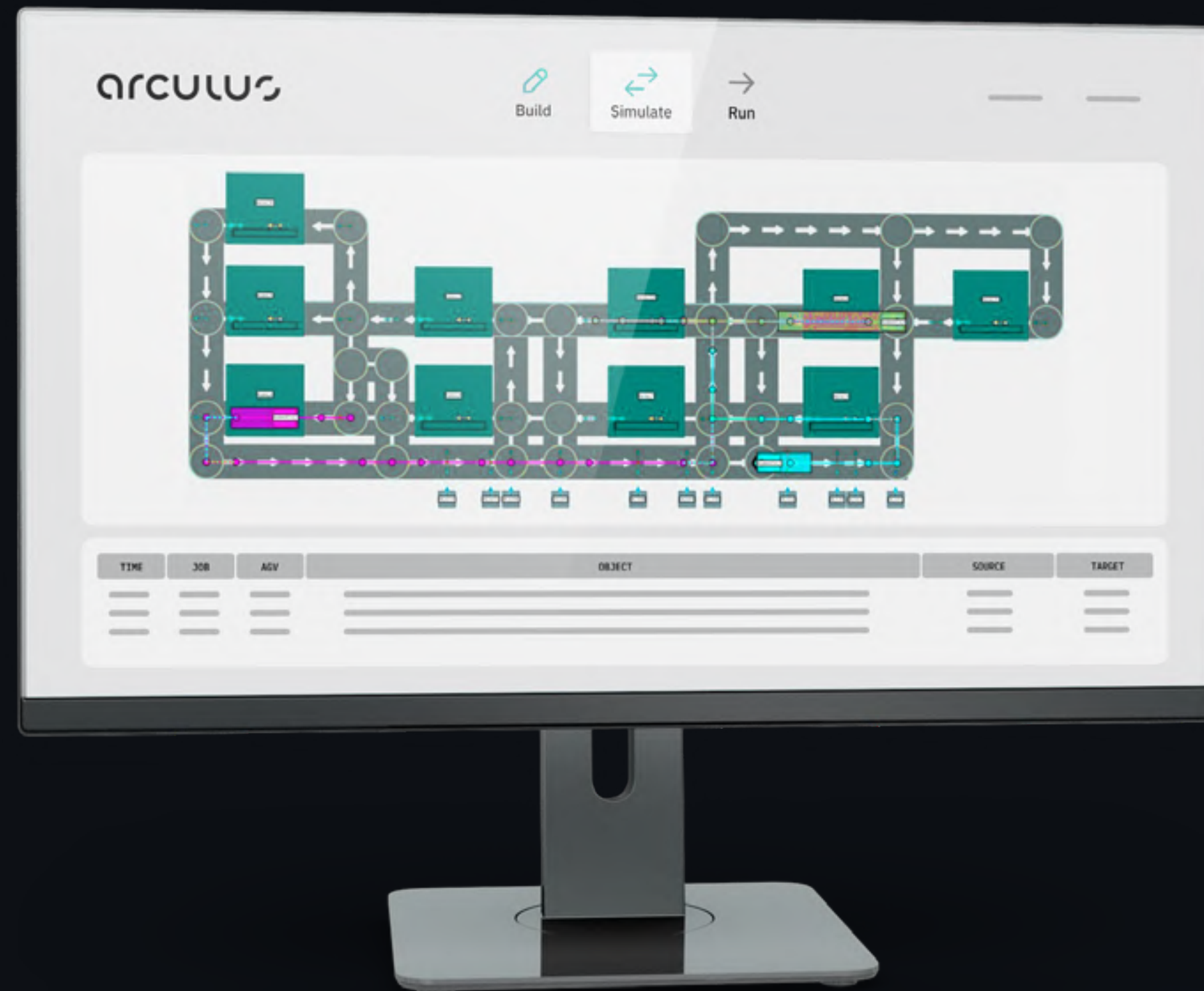
AUTONOMOUS MOBILE ROBOT (AMR)

3rd party robots

VDA5050



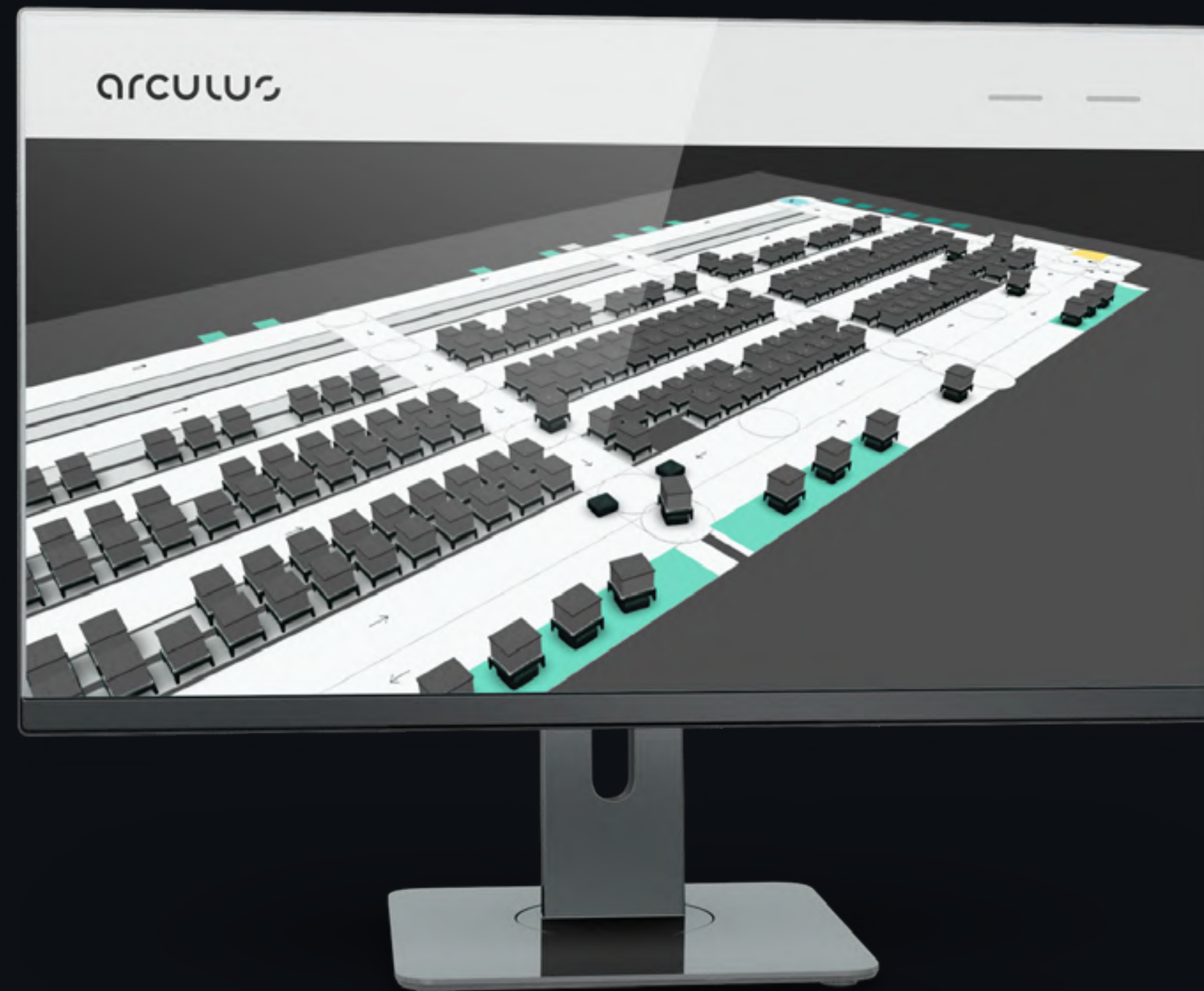
# Modular Production



Software module for real-time control and optimization of product flow - built from the ground up to enable large-scale Modular Production in any greenfield or brownfield setup. Each product passes through flexible and scalable production modules placed throughout the factory space in an order determined by individual unit requirements and factory utilization.

- 01 Calculation of individual production paths for individual products
- 02 KPI-driven planning and controlling of product flow
- 03 Adaption to unforeseen events due to decision-making at run time
- 04 Integration of (goods-to-person) logistics
- 05 Worker information system
- 06 Adaption to worker qualification and algorithm for worker rotation

# Warehouse

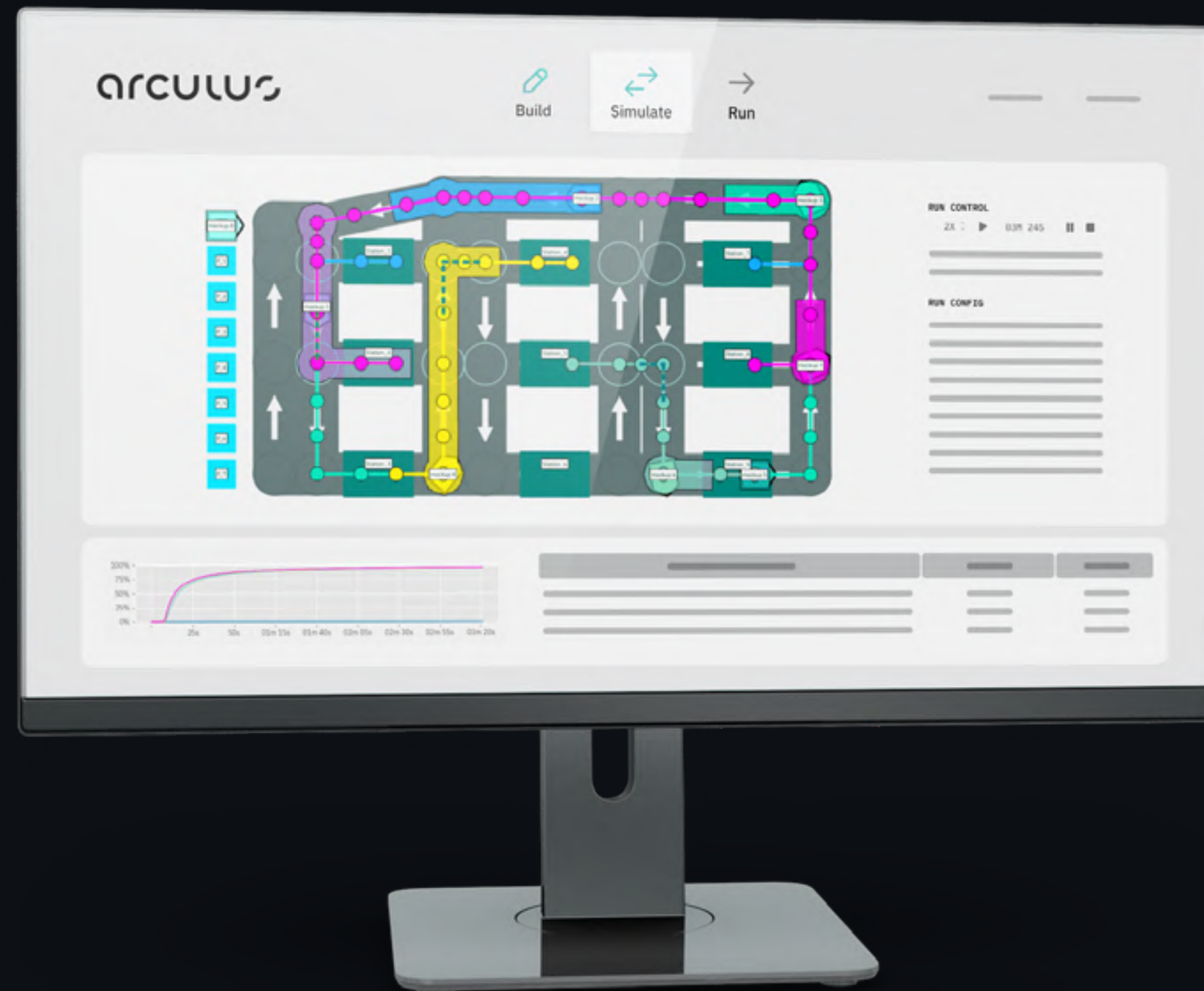


Software module for next-generation warehouse management – making goods-to-person (G2P) picking available to industrial environments at a new level of simplicity. Materials are provided to each workstation in perfect synchronization with the production program – radically reducing transport, material handling and storage.

- |    |   |    |   |
|----|---|----|---|
| 01 | Plug-and-play automation of plant logistics processes | 05 | Quality control through pick/put by scan                                |
| 02 | Integrated inventory management                       | 06 | Handling of special processes, e.g., visual control, manual part orders |
| 03 | Optimization of sequencing, commissioning and storage | 07 | Suitable for small and large load carriers                              |
| 04 | Worker guidance at picking station                    |    |   |



# Fleet



Intelligent fleet management platform integrating multiple fleets of autonomous mobile robots (AMR) or automated guided vehicles (AGV) in one single application via the standardized VDA5050 interface. Products and material can be moved dynamically to any point on the production site

- 01 Smart routing and re-routing based on live traffic information
- 02 Predictive path planning to prevent risk of congestion
- 03 Traffic control based on dynamic trajectory envelopes for each AMR
- 04 Planning, simulation, operation and optimization in one system
- 05 Dedicated views for operators, servicing and management
- 06 2D/3D visualization and monitoring, custom reports
- 07 Base module for goods-to-person and modular production



# arculee



Autonomous mobile robot (AMR) combining the capabilities from self-driving cars and economies from mass production – stress-tested in automotive series production.

- |    |  |    |   |
|----|--|----|---|
| 01 | Autonomous transport of products and material (payload up to 1.0t) | 05 | Logging pipeline and tools for analysis                   |
| 02 | Robust localization and navigation based on sensor data fusion     | 06 | Over the air updates and (predictive) maintenance concept |
| 03 | In-line charging for maximum utilization                           | 07 | CE certification for collaborative environments           |
| 04 | Available in three sizes   |    |   |

For further questions and  
inquiries [please contact](#)

arculus

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