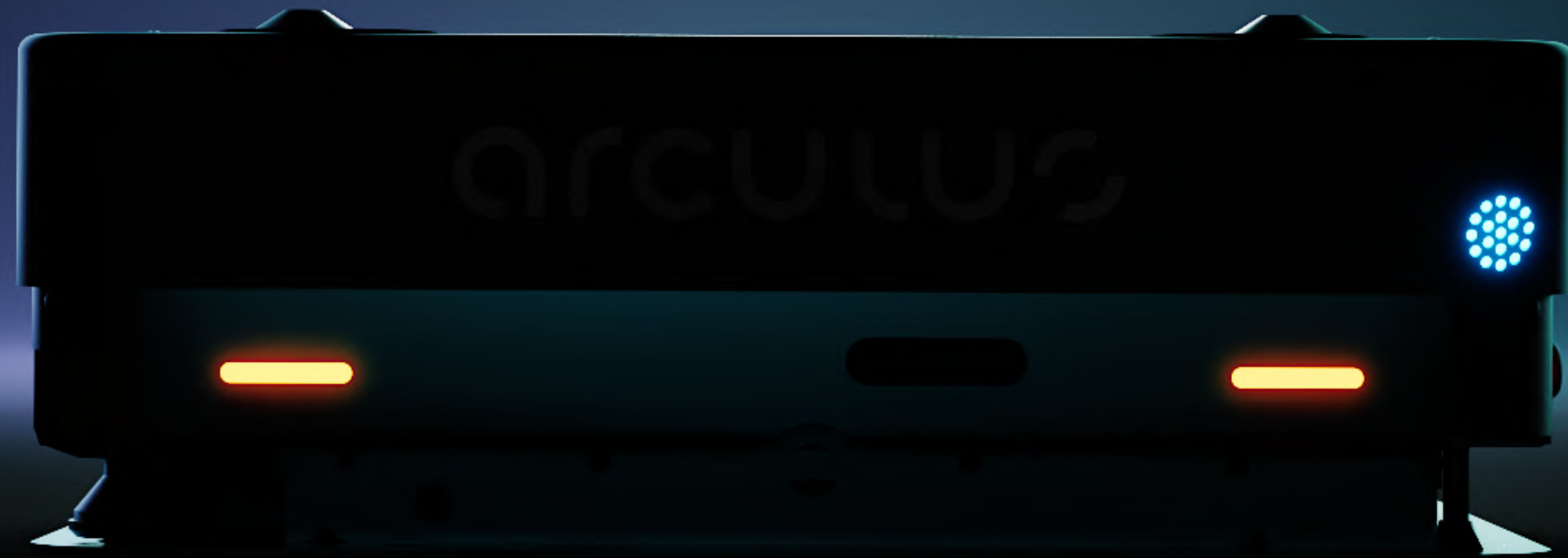


arculee  
AUTONOMOUS MOBILE ROBOT



Expect more every day

arculus  
MODULAR PRODUCTION

OVERVIEW

# arculee AMR

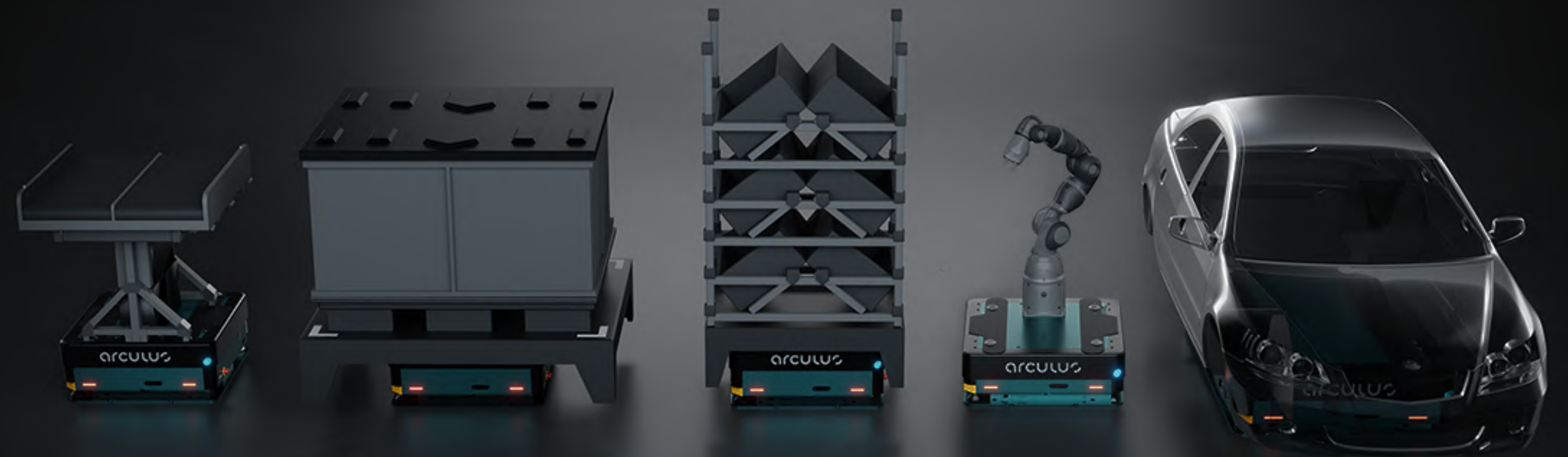
Autonomous mobile robot  
combining the capabilities from  
self-driving cars and economies  
from mass production.  
Available in 3 different sizes.



BENEFITS

# Built to transport

Autonomous transport of products and materials with one flexible, cost-efficient platform, stress-tested in automotive series production.





BENEFITS

# Upgrades included

Free performance and function updates over lifetime, enabled by continuous collection and analysis of fleet data, shipped over-the-air.



ARCULUS

## BENEFITS

# Plug & play

Automation of manual transports has never been more easy and intuitive - from plug & play setup and commissioning to care-free operations.

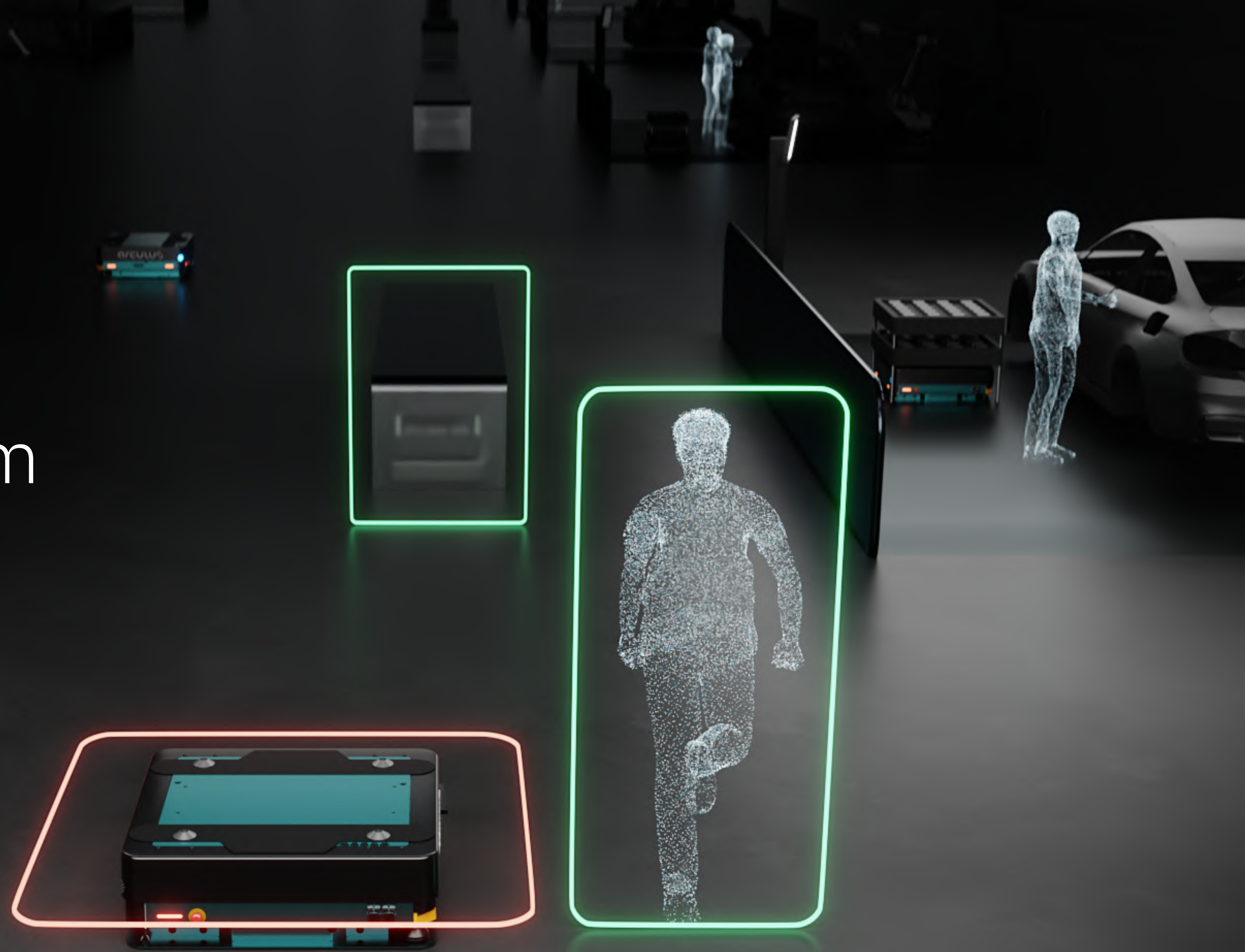




BENEFITS

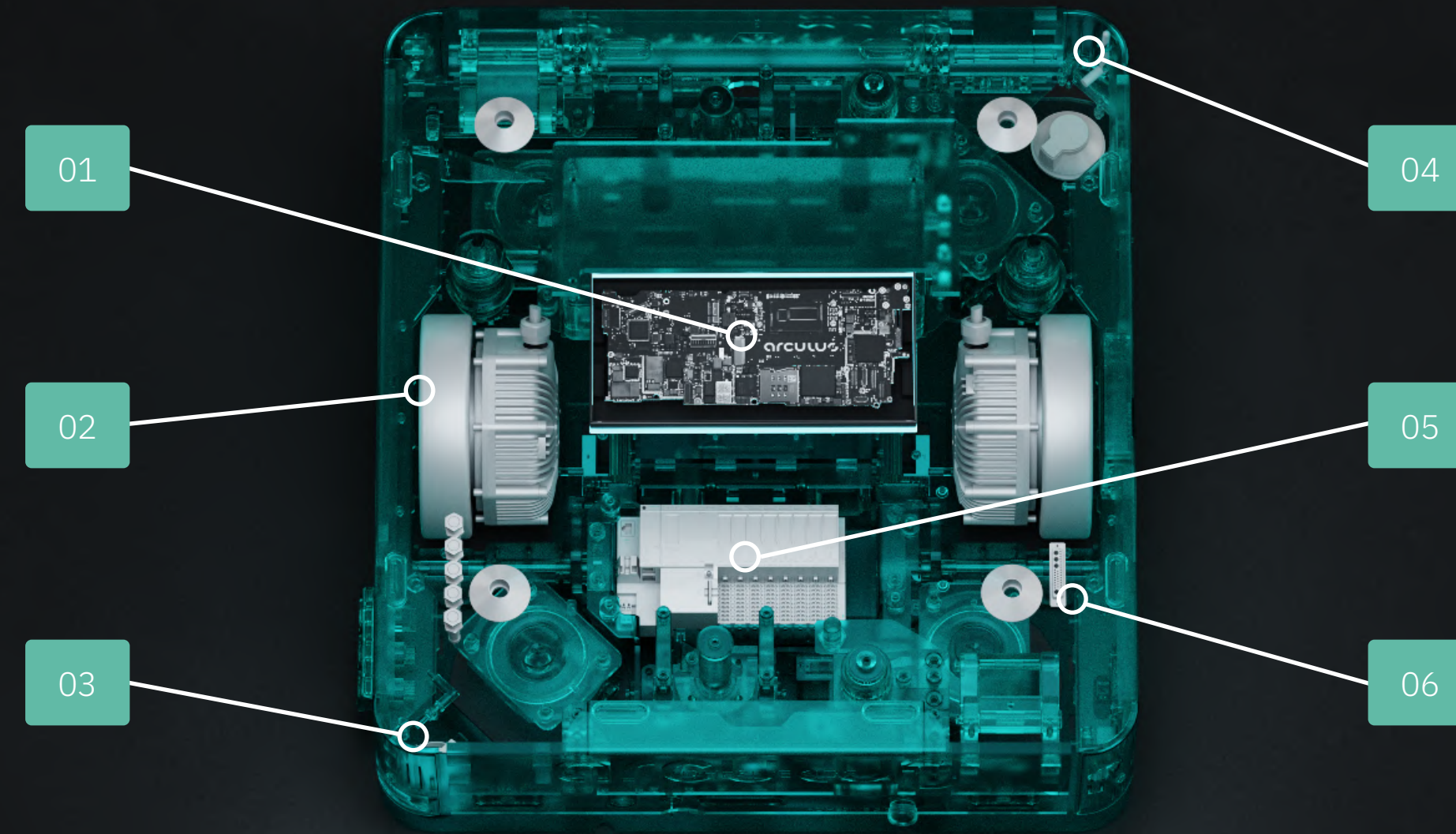
# Welcome to the team

Made for safe collaboration along  
with humans and machines,  
without compromises - no  
additional infrastructure needed.





# Technology



## 01 ROBOT CONTROL UNIT (rcu®)

Any arculee is equipped with our central robot control unit (rcu®) and proprietary software, the powerful arculus brain. The bottom line: greater autonomy and robustness, easier access over-the-air, and superior economics.

## 02 POWERTRAIN

With its redundant battery system and intelligent drive, arculee delivers transports with optimal energy efficiency, at a top speed of 2.3 m/s, with world-class dynamics and over an 8-hours shift without recharging.

## 03 PERCEPTION

arculee uses a unique sensor architecture combining depth cameras and lidars to perceive its surroundings and enable lifelong learning.

## 04 CONNECTIVITY

arculee can be seamlessly integrated into the factory automation infrastructure via WIFI, 5G, iWLAN and standardized VDA 5050 interface for flexible master control.

## 05 SAFETY

arculee's CE-certified safety concept comes with prediction capabilities that enable best use of space and worry-free human-robot collaboration in any industrial environment.

## 06 EXTENSIONS

Flexible tailoring to use cases with backpack modules from arculus or 3rd party vendors, quickly integrated via standard mechanical and electrical interfaces.



# Data Sheet

USE CASE	Type
	Dimensions (L/W/H)
PERFORMANCE	Maximum load
	Max. speed (unloaded)
	Max. speed (max. load)
	Maximum lift
SAFETY	Safety components
	Safety certification
ENERGY	Charging type
	Battery
CONNECTIVITY	Communication channels
	Communication interface
	Over-the-air-functionality
OPERATION	Object detection
	Load carrier identification
	Navigation method
	Positioning accuracy
	Direction of motion
	Operator interface
	Extensions
ENVIRONMENTAL	Maximum humidity
	Ambient temperature

arculee XS	arculee S	arculee M
		
Platform	Platform/Lift	Platform/Lift
505 x 540 x 400 mm	800 x 750 x 290 mm	1200 x 750 x 290 mm
250 kg	1,000 kg	1,200 kg
2.3 m/s	2.3 m/s	2.3 m/s
2.3 m/s	1.8 m/s	1.8 m/s
No lift	88 mm (electro mechanical, spindle)	88 mm (electro mechanical, spindle)
2 x emergency stops, signal lights, blue-spots, sound alert, safety laser scanner (360°)		
CE, human-safe		
Contact floor charging (no floor interference)		
Li-ion (~45 min charging, ~8 h driving, intelligent charging)		
WLAN, iWLAN, 5G		
VDA 5050		
Lifelong remote software updates and function upgrades		
RGB / 3D-camera and 360° laser scanners		
Safe identification via inductive sensors		
Marker codes (floor), contour navigation (laser)		
+/- 5 mm (marker), +/- 30 mm (contour navigation)		
Bi-directional, point rotation		
Web-based user interface & remote control		
Backpack-ready (mechanic, electric, signal, safety)		
80%, non condensing		
5 - 40 °C		



For more information  
contact [arculee@arculus.de](mailto:arculee@arculus.de)



[WWW.ARCULUS.DE](http://www.arculus.de)