



THE COLLABORATIVE  
MOBILE ROBOT

# ZALPHA ARV

Introducing ZALPHA Autonomous Robot Vehicles (ARV) is an Autonomous Mobile Robot (AMR) equipped with Collaborative Robot Arm from Universal Robot capable of doing material handling, machine tending, vision inspection and many more.



@dfautomation

## WE BUILD ROBOTS!

As a company passionate about building effective Autonomous Mobile Robots (AMR), DF Automation & Robotics seeks to come up with innovative solutions for indoor material handling. Without human intervention, our robots autonomously carry loads from one location to another. They are supported by an inhouse operating system; NavWiz & DFleet, which operates wirelessly through WiFi. This allows DF to serve customers across the world from different industries, on time.

Talk to us, we offer solution too!

### NavWiz

A comprehensive AMR control software equipped with smart manufacturing capabilities which allows programming opportunities from any part of the globe where the internet is available. Extremely user-friendly!

With our NavWiz, even a person without programming experience would be able to program a fully functional robot by using 3 easy steps.

### DFleet

Need more than 1 robot to run your operation line?

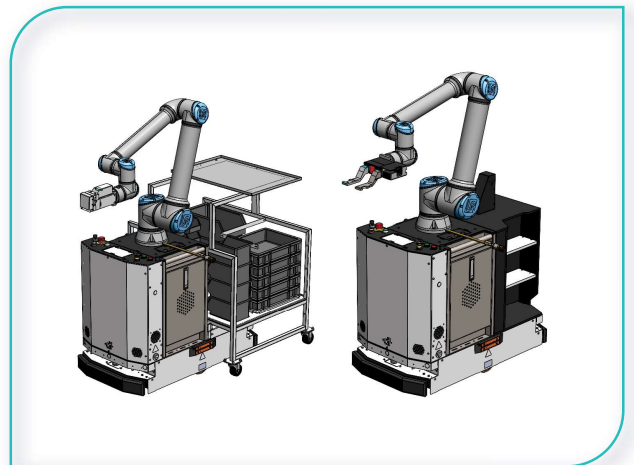
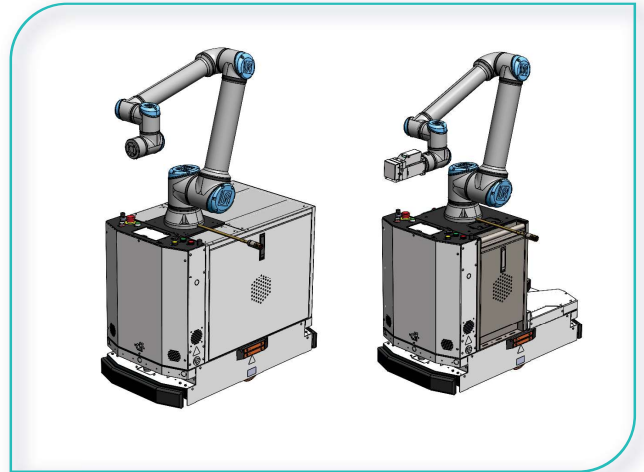
DF's Fleet Management System controls the traffic of multiple AMRs moving simultaneously ensuring safe movement and efficient completion of tasks. This system also manages AMRs automated charging needs.

### DFCare

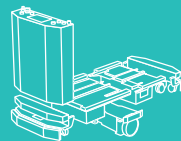
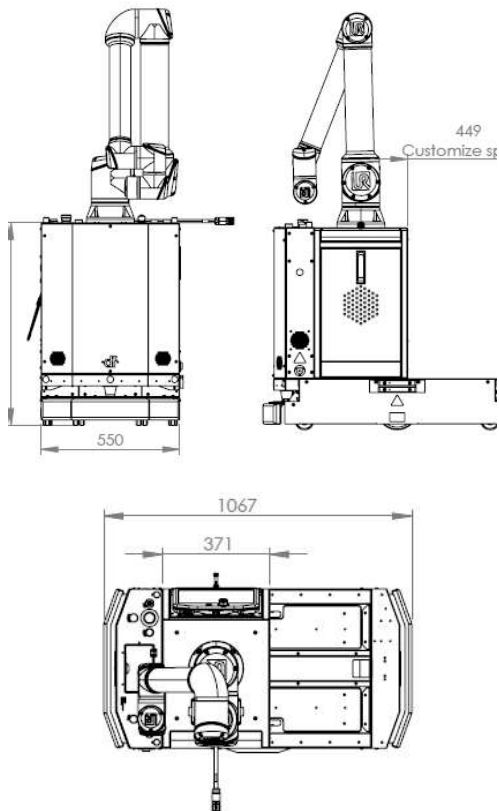
Our DF Cares offer customers unique maintenance packages covering different needs and values to choose from.

Learn more, talk to our sales team today!

## INTEGRATION OPTION



## AMR BASE SIZE



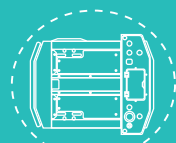
Modular and  
configurable

i4.0

Industry 4.0 enable

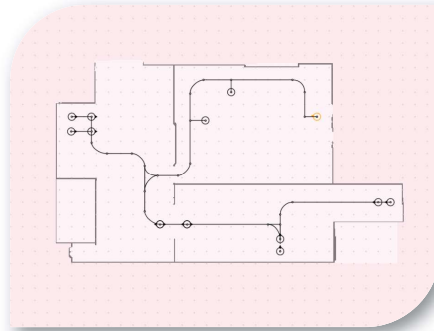
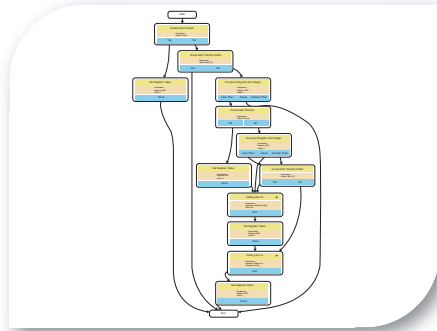


Integration Friendly



Robust Industrial  
Design

# SYSTEM SOFTWARES



## SPECIFICATIONS

### GENERAL

Product Model	ZALPHA-E-TB-PH-UR3/5/10
Navigation Method	Laser-based Natural Feature / Magnetic Strip Guidance
Load Dimension	L: 1360mm x W: 960mm

### PAYLOAD

Direct Load	Up to 300kg
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### PERFORMANCE

Running Time (100% to 10%)	10 hours
Maximum Speed	1 m/s (3.6km/h)
Maximum Gradeability	3% (1.72 degree)
Stopping Accuracy	Natural Feature: $\pm 50\text{mm} \pm 2^\circ$ / Marker: $\pm 10\text{mm} \pm 1^\circ$
Drive Method & Travelling Direction	2 Wheel Differential Drive / Forward, Reverse, $90^\circ$ / $180^\circ$ Turn
Traversable Gap & Step	5mm, 5mm

### POWER AND SYSTEM

Battery Type	LiFePo4 Battery, 130Ah
Charging Method & Charging Time	Automatic & Manual Charging / 2 hours
WiFi Frequency	802.11 ac/a/b/g/n, 2.4GHz / 5GHz Dual-Band WiFi
Operating System	Standalone (NavWiz), Fleet Management System (DFleet)

### FEATURE AND INTERFACE

Safety Indicators	Color LED Lighting, Music Playback & Alarm
Safety Features	5m Adjustable Range Laser Sensor, 2X Bumper Switch, 1x Emergency Switch, 1X External Safety Input / Output,
User Interface	7 Inch Capacitive Touchscreen / Physical Button
Integration Interface	[Port] General USB port x1, LAN Port x1 / [API] REST, Modbus, Webhooks
Potential Application	Vision Inspection, Picking, Machine Tending and many more

\*Specifications may vary and are subject to revisions

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