Zebra
Robotics Automation™

Fetch100 Research

Advance Autonomous Mobile Development with the Fetch100 Research. Zebra's fully autonomous Fetch100 Research base is a safe and cost-effective solution to accelerate the development of automated products and solutions for a wide range of applications.

ZEBRA

Fetch100 Research:
The Original AMR Platform

With their highly extensible hardware design, Fetch100 Research autonomous mobile bases have become great enablers for researchers and corporate innovation centers looking to develop mobile robotic technologies.

Features

- Mobility to traverse ADA-compliant buildings. Specific attention was paid to the door threshold, elevator gap, and ramp requirements.
- A sensor suite suitable for the perception of objects, navigation, and manipulation in dynamic environments.
- Sufficient battery power to work an 8-hour day and an available charge dock for autonomous charging.
- Collaborative fully autonomous mobile robot base and modular top plate with 73-threaded mount points.
- Auxiliary access via top surface to 2 power ports, direct communication bus, Ethernet, and USB 3.0 ports. Side interface panel with Ethernet, USB 3.0, and DisplayPort.
- Built to work with the Robot Operating System (ROS). By using a standard software platform, many developers are already familiar with the tool set and can quickly start working with the robot.
- All the applications shipped on the Fetch100 Research except for firmware and some low-level drivers, are open sourced under permissive licenses. This allows developers to continue improving the autonomous capabilities of the robot and sharing of their contributions with the developing community.

AMR Base for Research: Meet the Platform

The Fetch100 Research provides a common robotics platform for researchers around the world to collaborate and share research. The research platform was designed to work with the Robot Operating Systems (ROS) for the greatest common usability and familiarity.

Fetch100 Research Specifications	
Weight	68 kg (150 lbs)
Height	359 mm (14 in.)
Base Footprint	508 mm (20 in.) wide; 559 mm (22 in.) dia.
Payload	100 kg (220 lbs)
Max Speed	1.75 m/s
Turning Radius	Turn in place
Battery	Deka 8G22NF Sealed Lead Acid
Nominal Continuous Runtime	9 hours
Charging	Autonomous docking
Charge Time	3 hours to 90%
2D Laser Sensor	SICK TiM 571, 25 m, 220 degrees
Processor	Intel Core i7-9700E
RAM	32GB
Hard Drive	256GB SSD
Wireless	Intel AX200 802.11.ax and Bluetooth® 5.1
Side Interface Panel	DisplayPort, 2x USB 3.0, Ethernet
Audio	4x Speakers, 10W per channel
Environment	Indoor
Traversable Aisle	95 cm (37.4 in.)
Traversable Gap	15 mm (0.59 in.)
Torque for M5 Mounting Points	3.6 N-m (31.9 in-lb.)
Installed Software	Ubuntu Linux® LTS, ROS
Installed Applications	ROS Navigation, joystick teleop, calibration

WARNING: This product uses components which emit invisible laser radiation. Incorrect use or observing the safety laser scanner through optical instruments (such as magnifying glasses, lenses, telescopes) may be hazardous for the eyes.

CE Zebra AMRs carry a CE mark and meet regulatory requirements for product safety.

ANSI/RIA R15.08 Zebra AMRs conform with R15.08 safety standards published by the RIA (Robotics Industry Association)

For more information about Zebra's autonomous mobile robot solutions, please visit **www.zebra.com**

ZEBRA

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