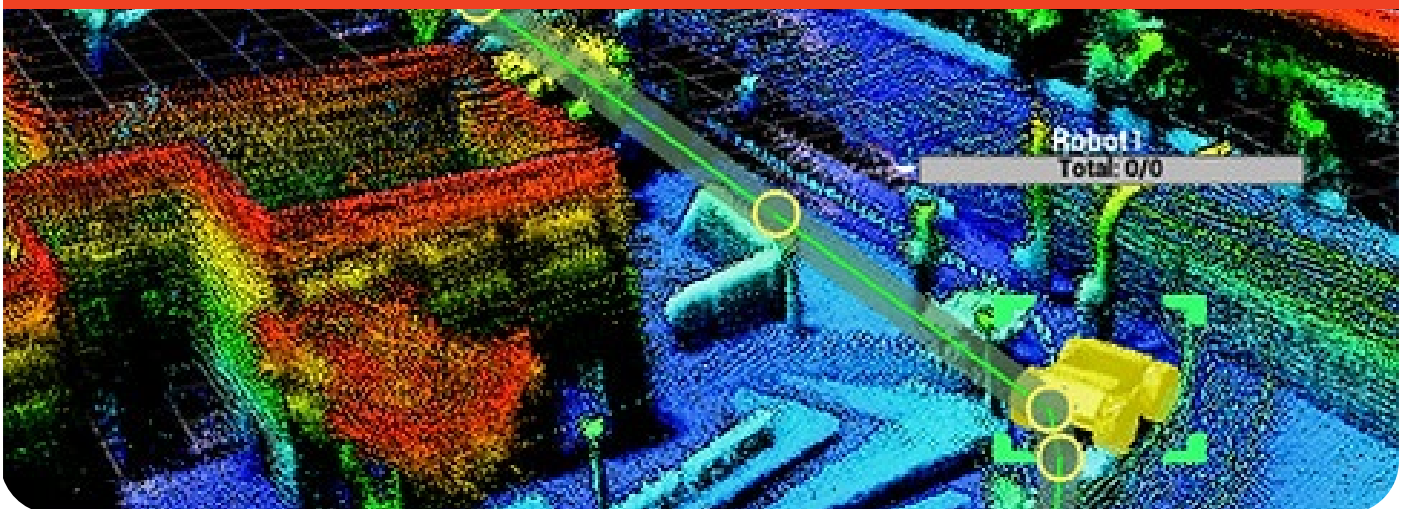


High Performance
Self-Driving Stack
for Robot Deployment



d.ASHNav



d.ASH Nav



Experience the future of autonomous robot navigation with d.ASH Nav, the cutting-edge software solution that transforms the way robots interact with their surroundings. Our comprehensive suite of frameworks—Pilot, Auto-Drive, and Waypoint Autonomy—creates a scalable, high-performance Self-Driving Stack for wheeled and legged robots, empowering you to command and control your robots effortlessly in 3D environment.



System requirements

Intel(R) Core(TM) i5-10210U COU @ 1.60GHz
16 Cores with minimum 4GB RAM.
Recommended 8GB RAM.

■ Pilot

The Pilot framework is an all-in-one software app that offers high-performance, low-latency, long-range remote operations. It allows you to take manual control of your robots at any time, from any distance, and in any environment.

Our ultra-high-speed data streaming enables Pilot to stream live video feeds from robots over LTE and 4G cellular networks, facilitating operation in environments with weak network infrastructure. Stay connected with minimal latency, you can take control across the country with d.ASH Nav.

Machine requirement: Camera

■ Auto-Drive

Auto-Drive software allows robots to navigate unstructured environments with minimal operator input autonomously. Auto-Drive uses state-of-the-art video analytics and machine

learning models to analyze the environment in real-time with a camera only, without GPS, lidar, and radar. Auto-Drive enables a hands-free Level 2 Autonomy experience at the push of a button.

Machine requirement: Ricoh Z1 or fisheye camera positioned in front of robot, 30-60cm above the ground, with 160° unobstructed field of view. No Lidar required. Machine should be equipped with a computer or have high CPU computing power for streaming.

■ Waypoint Autonomy

Using a high-performance 3D Engine capable of rendering massive point clouds and SLAM software, d.ASH Nav determines the real-time location of connected robots within millimetres. Just drop and add waypoints like markings on a map to automated patrol routes all thanks to d.ASH Nav's seamless UI.

Machine requirement: Lidar and RGBD camera

Advantages of d.ASH Nav

Industrial Sensor Integration

Heat Sensor | Sound Sensor | Laser Scanner

Robot Agnostic



Not dependent on any specific type or brand of robot

Multiple Robots & Missions in a Single Session



Monitor via Secured Streaming




Missions continue in network denied environments





 **Precision & Efficiency**

By leveraging advanced algorithms and sensor fusion techniques, the software allows robots to accurately perceive their surroundings, identify obstacles, and plan optimal paths.

 **Adaptability & Flexibility**


The software utilizes real-time data from sensors to create up-to-date maps and continuously update them as the environment changes. This adaptability enables robots to seamlessly navigate through dynamic and unpredictable surroundings such as crowded outdoor public spaces and construction site.

 **Enhanced Safety & Risk Mitigation**

The software's intelligent decision-making capabilities enable robots to make informed choices to avoid obstacles and optimize their routes, mitigating potential risks and enhancing overall safety. This not only protects the robots themselves but also minimizes the risk of accidents or collisions with humans and other objects in the environment.



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