

ABOUT US

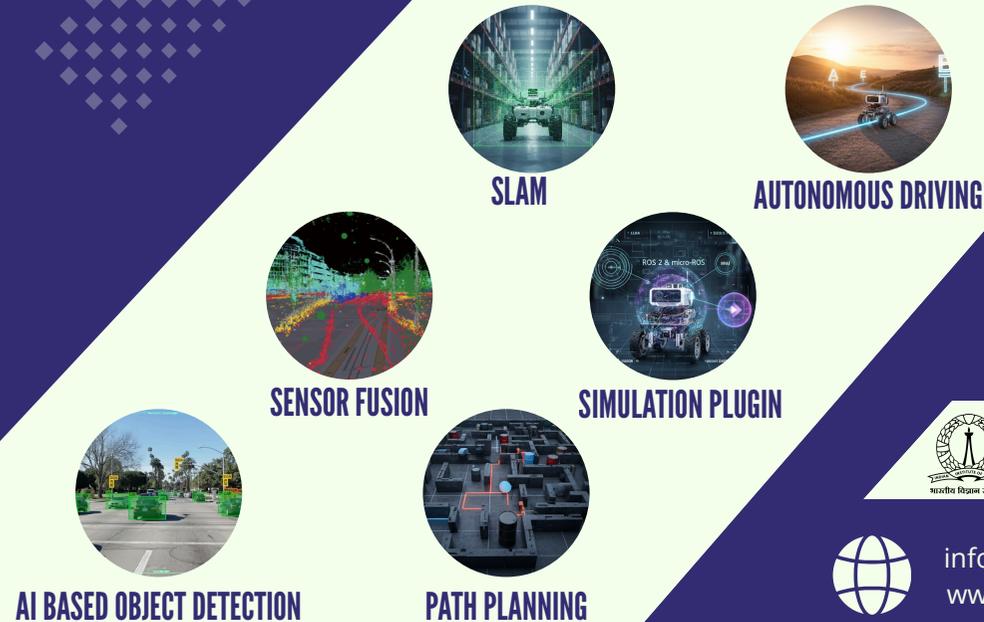
AutoMind Dynamics is a deep-tech startup incubated at **ART-PARK, Indian Institute of Science (IISc), Bengaluru**, building next-generation autonomous vehicles and intelligent software for real-world deployment. We design high-performance autonomy solutions for both indoor and outdoor environments by tightly integrating AI-driven software with robust hardware and embedded systems. Our mission is to embed intelligence into mobility—delivering autonomous systems that are practical, safe, and scalable, enabling industries to operate smarter, faster, and more efficiently.



OUR PRODUCT

- Autonomous ground robot—ready for Research and academia
- Rapid deployment with minimal setup and configuration
- Built-in autonomy stack covering perception, planning, navigation, control, and obstacle avoidance
- Engineered for both research and real-world experimentation, powered by open-source ROS2 frameworks
- Modular payload support, enabling easy integration of custom sensors and research hardware

WE OFFER



- SLAM**
- AUTONOMOUS DRIVING**
- SENSOR FUSION**
- SIMULATION PLUGIN**
- AI BASED OBJECT DETECTION**
- PATH PLANNING**



SPECIFICATIONS



DIMENSIONS	390 x 348 x 190 mm (15.35 x 13.7 x 7.4 in)	RUN TIME	Performance: 4 hrs Basic Usage: 6 hrs
EXTERNAL POWER INTERFACE	12V 5A	ODOMETRY ACCURACY	95-97%
MAX. PAYLOAD	5 kg (11 lbs)	BATTERY	3S 15 Ah
MAX SPEED	1.36 m/s (4.9 Km/h)	SENSORS	Stereo Camera, IMU, LIDAR(2D,3D)

COMMUNICATION Ethernet,
USB 3.0

FRAMEWORK Packaged with
ROS2

COMPUTE UNIT Jetson Orin Super,
Orin Nx 8/16

FEEDBACK Battery, Motor
Current, Wheel
Velocity & IMU

PLUGINS MATLAB, ROS 2 (Humble /
Jazzy), Isaac Sim, PyBullet,
Webots, Gazebo

COMMUNICATION INTERFACES Wi-Fi 5 & BLE
USB-A (External) & USB-C
(Debugging)
RJ45 Ethernet

DISPLAY INTERFACE HDMI

POWER INTERFACE LP-16
Connectors

SENSOR ECOSYSTEM



Depth & AI Cameras:
Full support for OAK-D,
Intel RealSense, ZED,
and YDLIDAR series for
advanced spatial AI
and stereo vision.



LiDAR (2D/3D/4D): Pre-
configured drivers for Livox
(Mid/Avia/HAP), Velodyne,
Ouster, and YDLIDAR for
high-fidelity mapping.

RealSense

LIVOX

Velodyne Lidar



YDLIDAR



Precision Positioning:
Ready for RTK-GNSS,
Neo-M8N, and multi-
constellation GPS
modules.



Radar: Integrated support
for mmWave and ARS series
long-range detection.

READY FOR RESEARCH



FOR STUDENTS:

- Learn real-world robotics stacks
- Implement SLAM, perception & control
- ROS 2 based hands-on deployment



FOR RESEARCHERS:

- Skip hardware bring-up
- Prototype perception & navigation fast
- Open-source ROS 2 foundation

TOP
VIEW



SIDE
VIEW



FRONT
VIEW



GEFIER R1

EXPERIENCE THE FUTURE OF AUTONOMY



“

INDOOR MOBILE ROBOT

From Equation to Execution—Instantly

Bypass the build, deploy your custom controls,
and validate your results on day one.

SAFETY



Integrated BMS (Battery Management System):
Continuous health checks for Cell Balancing, State of Charge (SOC), and thermal limits.



Smart Charging Protection: Integrated over-voltage and over-current safeguards ensure battery health and safe indoor charging.



Emergency Kill Switch: Physical E-Stop for immediate hardware-level power cutoff.



Multi-State LED Indicators: High-visibility status LEDs provide instant visual feedback on system health, battery levels, and ROS 2 connectivity.