



Autonomy Kits

Adaptable, Modular, and Expandable Enclosures

Neya's autonomy kits are designed to be modular and expandable to address the significant variation of mission types and target vehicle platforms. Our autonomy hardware is packaged as a suite of multiple enclosures to allow for additional modules to be added on for increased processing needs.

9 SERIES - SMALL ROBOT AUTONOMY KIT



Specifications

Core Capabilities

Platform-independent navigation, ODOA, manipulator control

Autonomy Options

Neya autonomy, custom integration with JAUS skeleton

Manipulator Control

Open loop, closed loop, "fly-the-end-effector"

Waypoint Performance

Less than 3% distance traveled (depending on platform dynamics)

Dimensions and Weight

14.5 cm x 9 cm x 5 cm; <.5 kg

Power

Less than 9W; 9-36V DC

Environmental

-20° to 140°F operating, IP-67, shock, vibration resistance

Interoperability

SAE JAUS, IOP Version 4

CPU

Freescale i.MX6



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150 SERIES - WAYPOINT FOLLOWING FOR LARGE VEHICLE KIT



Specifications

Core Capabilities	Waypoint following with OD-Stop
Autonomy Options	Neya autonomy, RTK autonomy
Sensor Configuration	1 LiDAR or 1 stereo camera
Waypoint Performance	Configurable cross-track error tolerance, typically within 1m-5m
Dimensions and Weight	Module sizes between 19 cm x 19 cm x 8 cm and 34 cm x 23 cm x 18 cm; 10 kg.
Power	Less than 150W, 9-36V DC, 36-75V DC, or custom
Environmental	-4° to 140°F operating
Interoperability	SAE JAUS, IOP Version 4
CPU	Intel i7/i9/Xeon or Nvidia Xavier options

600 SERIES -ADVANCED AUTONOMY DEVELOPMENTAL KIT



Specifications

Core Capabilities	Go-To-Point with full ODOA; negative obstacle detection and vegetation filtering
Autonomy Options	Neya autonomy, RTK-Neya hybrid autonomy, or pure RTK autonomy
Sensor Configuration	2+ LiDARs and/or stereo cameras
Waypoint Performance	With GPS: cm-level accuracy; Without GPS: For every 100m traveled: 0.1m lateral drift, 0.05m longitudinal drift; During sharp turns >90deg: 0.1deg drift on hardtop surfaces & 0.35deg drift on gravel
Dimensions and Weight	Module sizes between 19 cm x 19 cm x 8 cm and 38 cm x 23 cm x 15 cm; 38 kg.*
Power	300W to 600W depending on feature set, 9-36V DC, 36-75V DC, or custom
Environmental	-4° to 140°F operating
Interoperability	SAE JAUS, IOP Version 4
CPU	Intel i7/i9/Xeon or Nvidia Xavier options

*The dimensions and weight may vary depending on the custom modules selected.