

ROS2 EDU KIT

Mobile Open-Source Navigation Kit



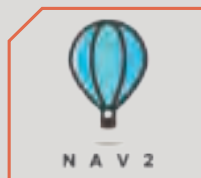
□□□□□



Ubuntu 20.04



Foxy Fitzroy



Navigation 2

Shenzhen·Nanshan District Tinno Building

Tel: +86-19925374409

E-mail: sales@agilex.ai Web: www.agilex.ai

ABOUT PRODUCT

The kit is based on the AgileX autonomous mobile robot platform with the ROS 2 Foxy version as the core, equipped with 2D LiDAR, 9-axis IMU, a dual purpose depth camera, and other sensors. The industrial control machine adopts the X86 architecture and provides new features, including NAV 2 and Gazebo 11, which is based on the Ubuntu 20.04 system. The NAV 2 core navigation components are fully compatible with the official new features of NAV, providing a comprehensive and in-depth ROS 2 learning and research integrated robot development platform for scientific education.



PC: minipc i5 16G 256

2D Lidar: G4

Camera: RealSense D435

Display: 14 inch IPS 1920*1080 HDMI

keyboard: k400 Plus

Router: GL.iNet AR750s

USB HUB: 7-Port USB3.0 Hub / 12V

Regulated Power Supply:
12V to 5V 15A

Regulated Power Supply:
24V (15-40V) to 12V/20A



Model

U-BOX-M2

Processor Support

Intel Core i8
Whiskey Lake-U/i10
Comet Lake-U/i11
Tiger Lake-U

Memory

DDR4 SODIMM x2

Storage

M.2 2242(PCIe x2
NVMe or SATA protocol)

OS Support

Windows7、 Windows10、
Windows11、 Linux



Model

Intel Realsense D435

Depth Technology

Stereoscopic

RGB Frame Resolution

1920 × 1080p

RGB Frame Rate

30fps

Depth Output Resolution

Up to 1280*720p

Depth Frame Rate

Up to 90fps

Minimum Depth Distance

0.3m



Model

YDLIDAR G4

Ranging Frequency

900Hz

Ranging Radius

0.12-16m

Angular Resolution

0.2-0.48°

Scanning Frequency

5-12Hz

Scanning Angle

360°

Dimension

Φ72.3*41.2mm



PC: minipc i7 16G 512G

3D LiDAR: RS16 (Educational Edition)

Camera: RealSense D435

Display: 14 inch IPS 1920*1080 HDMI

keyboard: k400 Plus

Router: GL.iNet AR750s

USB HUB: 7-Port USB3.0 Hub / 12V

Regulated Power Supply:
24V (15-40V) to 12V/20A



Model

U-BOX-M2

Processor Support

Intel Core i8
Whiskey Lake-U/i10
Comet Lake-U/i11
Tiger Lake-U

Memory

DDR4 SODIMM x2

Storage

M.2 2242(PCIe x2
NVMe or SATA protocol)

OS Support

Windows7、 Windows10、
Windows11、 Linux



Model

Intel Realsense D435

Depth Technology

Stereoscopic

RGB Frame Resolution

1920 × 1080p

RGB Frame Rate

30fps

Depth Output Resolution

Up to 1280*720p

Depth Frame Rate

Up to 90fps

Minimum Depth Distance (Min-Z) at max resolution

0.3m



Model

RS-LiDAR-16

Horizontal Fov

360°

Vertical Fov

30°

Horizontal Resolution

0.1° / 0.2° / 0.4°

Vertical Resolution

2.0°

Frame Rate

5Hz / 10Hz / 20Hz

Range

150m(80m@10%NIST)

Blind Spot

≤0.4m



Linkedin



Youtube