

# ROS2 EDU KIT

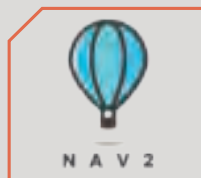
Mobile Open-Source Navigation Kit



Ubuntu 20.04



Foxy Fitzroy



Navigation 2

Génération Robots - Official distributor Worldwide

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# 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.



## LITE

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

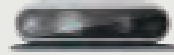
DDR4 SODIMM x2

### 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



## PRO

PC: minipc i7 16G 512G

3D LiDAR: RS16 (Educational Edition)

Camera: RealSense D435

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### 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



# Génération ROBOTS

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