

# INNOVATE AND CREATE WITH THE

## UP SQUARED V2 ROBOTIC STARTER KIT



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### UP Squared V2 Robotic Starter Kit

powered by the latest Intel® Pentium® J6426 processor.

- A complete package that comes with a compute unit, a 3D vision camera, and related components to work with the iRobot Create® 3 Educational Robot Platform
- Includes sample applications based on open-source ROS2, the ROSboard Web UI dashboard for remote access, and online tutorials to develop, build, and deploy mobile robot applications.
- Delivers a pre-validated option to accelerate deployment of ROS2-based AMR applications.



#### Included in the Kit



#### Sold Separately



#### Build and Test Robotics Applications

Run ROS2 sample applications on the UP Squared V2 Robotic Starter Kit. Leverage the Intel® technology to develop your autonomous mobile robot.

#### Tutorials and Resources

Find the complete documentations via UP Wiki for tutorials and guides to get started on robotics development.



#### Key Strengths

##### Mobile Robotics Platform

Jumpstart your robotics projects with an affordable, trusted mobile robotic starter kit. It is enhanced by the UP Squared V2, which is powered by Intel® Pentium® J6426, plus the Intel® RealSense™ depth camera D435i.

##### Begin with Ease

Grasp the fundamentals of robotics using sample applications that enable the robot to perform 2D/3D mapping and share video livestream thanks to the Intel® RealSense™ depth camera D435i.

##### Customized for Advanced Robotics Applications

Modify reference software with artificial intelligence and Simultaneous Localization and Mapping (SLAM) algorithms. Replace software modules with custom solutions to meet your application needs.

[shop@up-board.org](mailto:shop@up-board.org)

#### Hardware overview

- UP Squared V2 Main Board
  - Intel® Pentium® J6426, up to 3.00 GHz
  - Intel® UHD Graphics
  - 4GB LPDDR4
  - 32GB eMMC
- Intel® AC9260 WiFi Kit (via M.2 2230)
- Intel® RealSense™ Depth Camera D435i
- Connection with Create® 3 Educational Robot
  - Power Connector (5.5 x 2.1mm) with cable
  - Step Down Converter (DC 8 V - 40 V to 12 V)
  - USB-C to Ethernet Adapter
  - Flat Ethernet Cable (15cm)
  - Mini Fan

##### Sold Separately:

- Create® 3 Educational Robot
  - Robot Model: Create® 3 Educational Robot
  - Battery Type: 26Wh lithium-Ion Rechargeable Battery
  - Charging Dock: Home Base® Station
- Wireless Controller: Logitech G F710

#### Software overview

- Ubuntu 20.04
- ROS2
  - ROS2 Sample Applications for the Robot
- ROS Board Web UI

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ROS2

Ubuntu OpenVINO™