

Waveshare JETANK AI Kit Acce: 4-DOF, autonomous robot, deep learning, 8MP camera, for Jetson Nano

The JETANK AI Kit is based on the Jetson Nano Dev Kit and is an AI-driven mobile robot for deep learning and computer vision. It offers functions such as automatic collision avoidance, colour recognition, gamepad control and a 3D-controlled robot

Product number WS-20986

Weight 2.186kg



Product description

JETANK AI Robot Kit

The JETANK AI Robot Kit is an advanced mobile robot based on AI technology, designed for applications in deep learning, computer vision, GPU computing and multimedia processing. Equipped with a variety of functions, such as automatic collision avoidance, deep learning, autonomous driving, colour recognition and tracking, gamepad teleoperation and 3D coordinate system-controlled robot arm control, this kit provides a comprehensive platform for developers and technology enthusiasts. It is important to note that the [NVIDIA Jetson Nano Dev Kit](#) is not included and must be purchased separately.

Features

- High quality chassis with track, equipped with the 37-520 full metal DC gear motor for high torque and low noise
- 4-DOF robot arm that allows 180° wide-angle rotation for flexible control
- High-quality serial bus full-metal digital servo, offers high torque and high precision, prevents jamming and damage
- Automatic collision avoidance by combining AI algorithms with data from the camera
- Support for deep learning and autonomous driving
- Motion detection to capture moving objects in the video
- Colour detection and tracking for automatic detection and tracking of a specific colour
- Gamepad teleoperation for simple and flexible operation
- 3D coordinate system-controlled robot arm that moves to the target based on the inverse kinematics algorithm
- JupyterLab programming for a web-based interactive development environment
- 8MP 160° FOV camera with IMX219 sensor, offers 3280×2464 resolution
- Dual-band wireless AC8265 for fast WLAN, stable Bluetooth communication and low latency
- Highly integrated expansion board for rechargeable use, battery voltage monitoring, no messy cables and easy assembly

Technical specifications

- Basis: Jetson Nano Dev Kit (not included in the scope of delivery)
- Supported AI frameworks: TensorFlow, PyTorch, Caffe/Caffe2, Keras, MXNet

Scope of delivery

- Aluminium alloy kit x1
- JETANK expansion board x1
- Wireless-AC8265 with antenna x1
- IMX219-160 Camera x1
- Acrylic camera spacer x1
- Camera FFC x1
- 0.91inch OLED x1
- 12.6V 2A power supply + additional EU head x1
- Robotic arm gripper x1
- Thrust bearing x1
- Flange bearing x2
- Coupler x2
- Gearmotor x2
- 5264 servo wire x1
- Track kit (including bolt, nut, and screwdriver) x2
- 2*5pin wire x1
- Tensioner x1
- L-form hex socket spanner 2PCS x1
- SCS15-AP servo x4
- Screwdriver 2PCS x1
- SCS15-S servo x1
- Card reader x1
- Mini cross wrench sleeve x2
- Cooling fan x1
- PH2.0 4PIN dual connector cable x1
- Screws pack x1

Product properties

Zolltarifnummer	84733080
Country of Origin	China
Brand	Waveshare
Product ID	WS-20986
Manufacturer ID	JETANK AI Kit Acce
Gross Weight (kg)	2.186

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