SparkFun JetBot AI Kit v2.0 Powered by Jetson Nano

KIT-16390

The SparkFun JetBot AI Kit is a robot platform powered by the Jetson Nano Developer Kit V3 by NVIDIA. This SparkFun kit is based on the open-source NVIDIA JetBot! We understand that not everyone has access to multiple 3D printers and a whole warehouse of electronics so we wanted to build a kit from ready to assemble parts to get you up and running as quickly as possible. The SparkFun JetBot AI Kit V2.0 is a great launchpad for creating entirely new AI projects for makers, students and enthusiasts who are interested in learning AI and building fun applications. It's straightforward to set up and use and is compatible with many popular accessories. Several interactive tutorials show you how to harness the power of AI to teach the SparkFun JetBot to follow objects, avoid collisions and more. The Jetson Nano Developer Kit offers useful tools like the Jetson GPIO Python library, and is compatible with common sensors and peripherals; including some new python compatibility with the SparkFun Qwiic ecosystem.

Additionally, the included image is delivered with the advanced functionality of JetBot ROS (Robot Operating System) and AWS RoboMaker Ready with AWS IoT Greengrass already installed. SparkFun's JetBot AI Kit is the only kit currently on the market ready to move beyond the standard JetBot examples and into the world of connected and intelligent robotics.

This kit includes everything you need to get started with JetBot minus a Phillips head screwdriver and an Ubuntu desktop GUI. If you need these, check out the includes tabs for some suggestions from our catalog. Please be aware that the ability to run multiple neural networks in parallel may only be possible with a full 5V-4A power supply.

COMING SOON GET STARTED WITH THE ASSEMBLY GUIDE FOR SPARKFUN JETBOT AI KIT

INCLUDES

- NVIDIA Jetson Nano Developer Kit
- 64GB MicroSD card - Pre-flashed SparkFun JetBot image:
  - Nvidia Jetbot base image with the following installed: SparkFun Qwiic python library package
  - Driver for Edimax WiFi adapter
  - Greengrass
  - Jetbot ROS
- Leopard Imaging 145FOV wide angle camera & ribbon cable
- EDIMAX WiFi Adapter
- SparkFun Qwiic Motor Driver
- SparkFun Micro OLED Breakout (Qwiic)
- All hardware & prototyping electronics needed to complete your fully functional robot!
- Note - A Phillips head screwdriver is required for assembly and thanks to Qwiic soldering is no longer required!

Items not Included but you will need:

- USB keyboard and mouse
- Computer display (either HDMI or DP) & connector cable

FEATURES

- SparkFun Qwiic ecosystem for I^2C communication & solderless setup
- Ecosystem can be expanded using 4x Qwiic connectors, button, & 5V power terminals on GPIO header
- Example Code for: Basic Motion, Teleoperation, Collision avoidance, & Object Following
- Compact form factor to optimize existing neural net from NVIDIA
- 145° FOV camera for machine vision
- Pre-flashed microSD card
- Chassis assembly offers expandable architecture

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