The SparkFun JetBot AI Kit is a robot platform that can be powered by your own Jetson Nano Developer Kit by NVIDIA. This SparkFun kit is based on the open-source NVIDIA JetBot! This version of the SparkFun JetBot AI Kit is a great launchpad for creating entirely new AI projects for makers, students and enthusiasts who already own a Jetson Nano and are looking to take the next step with their machine learning platform. 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.

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.

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.

This kit includes everything you need to get started with JetBot minus a Jetson Nano Developer Kit, Phillips head screwdriver, a basic soldering setup, and an Ubuntu desktop GUI. Please be aware that the ability to run multiple neural networks in parallel may only be possible with a full 5V 4A power supply.

- 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 Serial Controlled Motor Driver
- SparkFun Micro OLED Breakout (Qwiic)
- All hardware & prototyping electronics needed to complete your fully functional robot!
- Note - some soldering & a Phillips head screwdriver is required for assembly

Features

- SparkFun Qwiic ecosystem for I^2C communication
- Ecosystem can be expanded using 4x Qwiic connectors 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

Items not included but you will need:

- NVIDIA Jetson Nano Developer Kit
- USB keyboard and mouse
- Computer display (either HDMI or DP) & connector cable