The SparkFun JetBot AI Kit is a robot platform powered by the Jetson Nano Developer Kit by NVIDIA. This SparkFun kit is based on the open-source NVIDIA JetBot! The SparkFun JetBot AI Kit 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.

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. Many other popular AI frameworks popular AI frameworks like TensorFlow, PyTorch, Caffe, and MXNet are supported, and Jetson Nano is capable of running multiple neural networks in parallel to process data and drive action. Please be aware that the ability to run multiple neural networks in parallel may only be possible with a full 5V 4A power supply.

The 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 Serial Controlled Motor Driver
- SparkFun Micro OLED Breakout (Qwiic)
- All hardware & prototyping electronics needed to complete your fully functional robot!

Features:

- SparkFun Qwiic ecosystem for I2C communication from Jetson Nano Dev Kit
- 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:

- USB keyboard and mouse
- Computer display (either HDMI or DP) & connector cable
- Some soldering & a Phillips head screwdriver is required for assembly