Arduino nano 33 IoT - Wifi compatible board

Datasheet:
https://docs.arduino.cc/static/33d43f6af369118e77d6331c09ed8099/ABX00027-datasheet.pdf

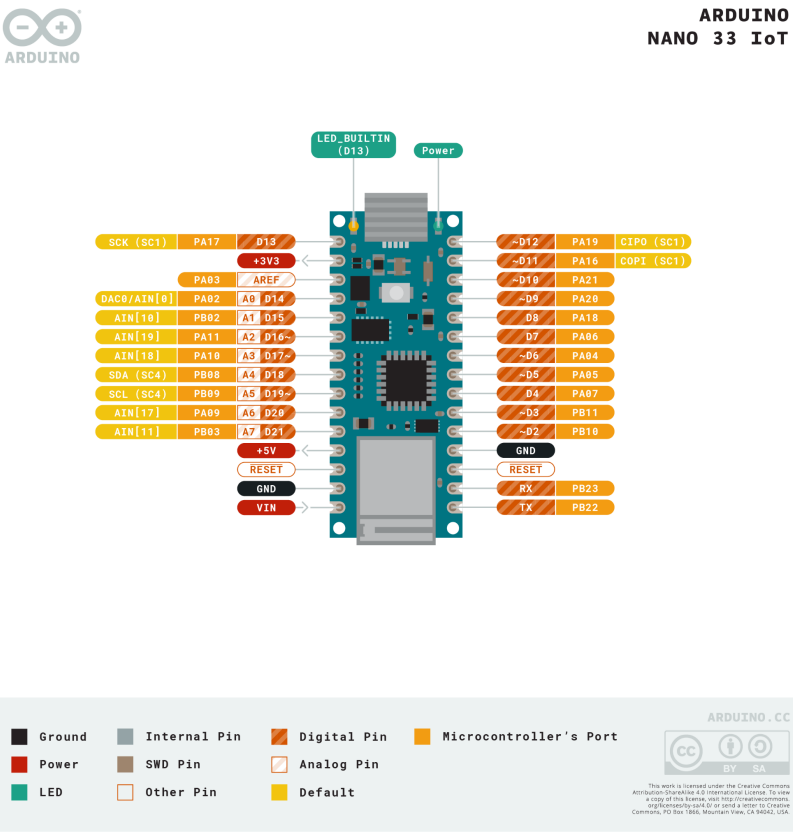
Programing software: Arduino IDE 2.0

Tutorial: https://docs.arduino.cc/hardware/nano-33-iot

Codes Repository: https://github.com/arduino-libraries/WiFiNINA

Cloud service selection:

- Arduino's own IoT Cloud. Check it out here
- Blynk: a simple project from our community connecting to Blynk to operate your board from a phone with little code
- IFTTT: see an in-depth case of building a smart plug connected to IFTTT
- AWS IoT Core: we made this example on how to connect to Amazon Web Services
- Azure: visit this github repository explaining how to connect a temperature sensor to Azure's Cloud
- Firebase: you want to connect to Google's Firebase, this Arduino library will show you how



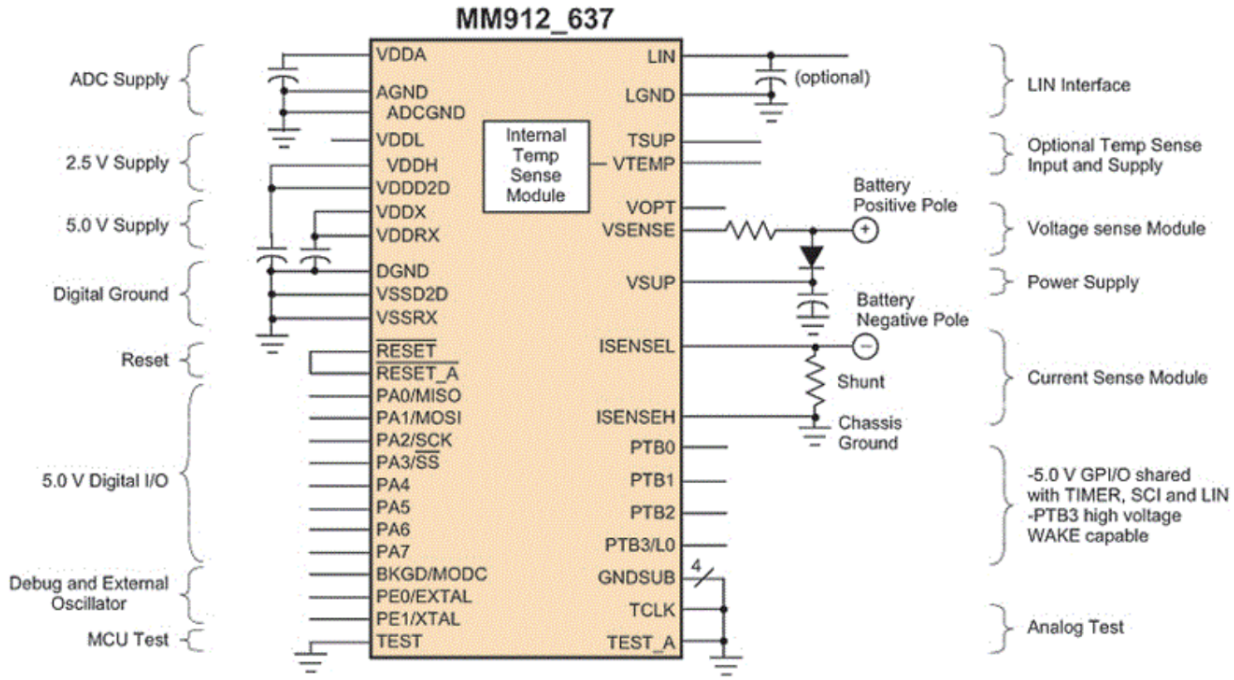
Possible Battery Sensor

MM912_637; Battery Sensor with LIN for 12 V Lead-acid Batteries

The NXP® MM912_637 battery sensors are integrated battery monitoring devices that allow simultaneous measurement of:

1. Current and voltage for precise determination of State of Charge, State of Health
2. Battery temperature measurement
3. Multiple application-specific hardware blocks reduce MCU overhead and related power consumption
4. Configurable low-power modes with automated battery state observation and sophisticated wake-up capability further reduce current consumption
5. The integrated LIN 2.1 interface allows communication and control of battery monitoring functions

Store website:
https://www.nxp.com/products/power-management/battery-management/battery-sensors/battery-sensor-with-lin-for-12-v-lead-acid-batteries:MM912_637



Overall top design