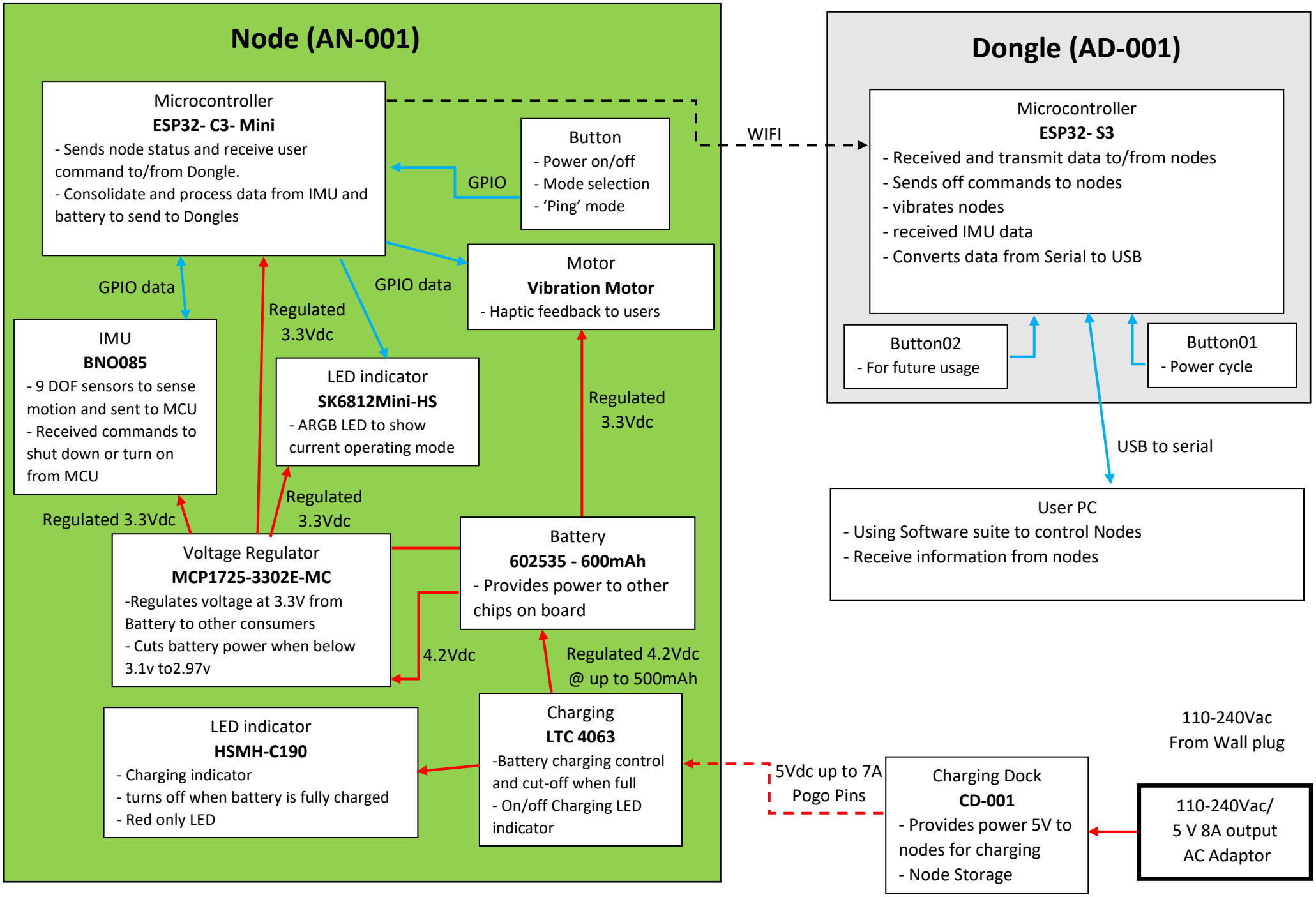
Node (AN-001)
Microcontroller
ESP32- C3- Mini
- Sends node status and receive user command to/from Dongle.
- Consolidate and process data from IMU and battery to send to Dongles
Button
- Power on/off
- Mode selection
- 'Ping' mode
GPIO
WIFI
Motor
Vibration Motor
- Haptic feedback to users
GPIO data
GPIO data
Regulated 3.3Vdc
IMU
BNO085
- 9 DOF sensors to sense motion and sent to MCU
- Received commands to shut down or turn on from MCU
LED indicator
SK6812Mini-HS
- ARGB LED to show current operating mode
Regulated 3.3Vdc
Regulated 3.3Vdc
Regulated 3.3Vdc
Voltage Regulator
MCP1725-3302E-MC
-Regulates voltage at 3.3V from Battery to other consumers
- Cuts battery power when below 3.1v to2.97v
Battery
602535 - 600mAh
- Provides power to other chips on board
4.2Vdc
Regulated 4.2Vdc @ up to 500mAh
LED indicator
HSMH-C190
- Charging indicator
- turns off when battery is fully charged
- Red only LED
Charging
LTC 4063
-Battery charging control and cut-off when full
- On/off Charging LED indicator
5Vdc up to 7A Pogo Pins
Dongle (AD-001)
Microcontroller
ESP32- S3
- Received and transmit data to/from nodes
- Sends off commands to nodes
- vibrates nodes
- received IMU data
- Converts data from Serial to USB
Button02
- For future usage
Button01
- Power cycle
USB to serial
User PC
- Using Software suite to control Nodes
- Receive information from nodes
Charging Dock
CD-001
- Provides power 5V to nodes for charging
- Node Storage
110-240Vac From Wall plug
110-240Vac/ 5 V 8A output AC Adaptor