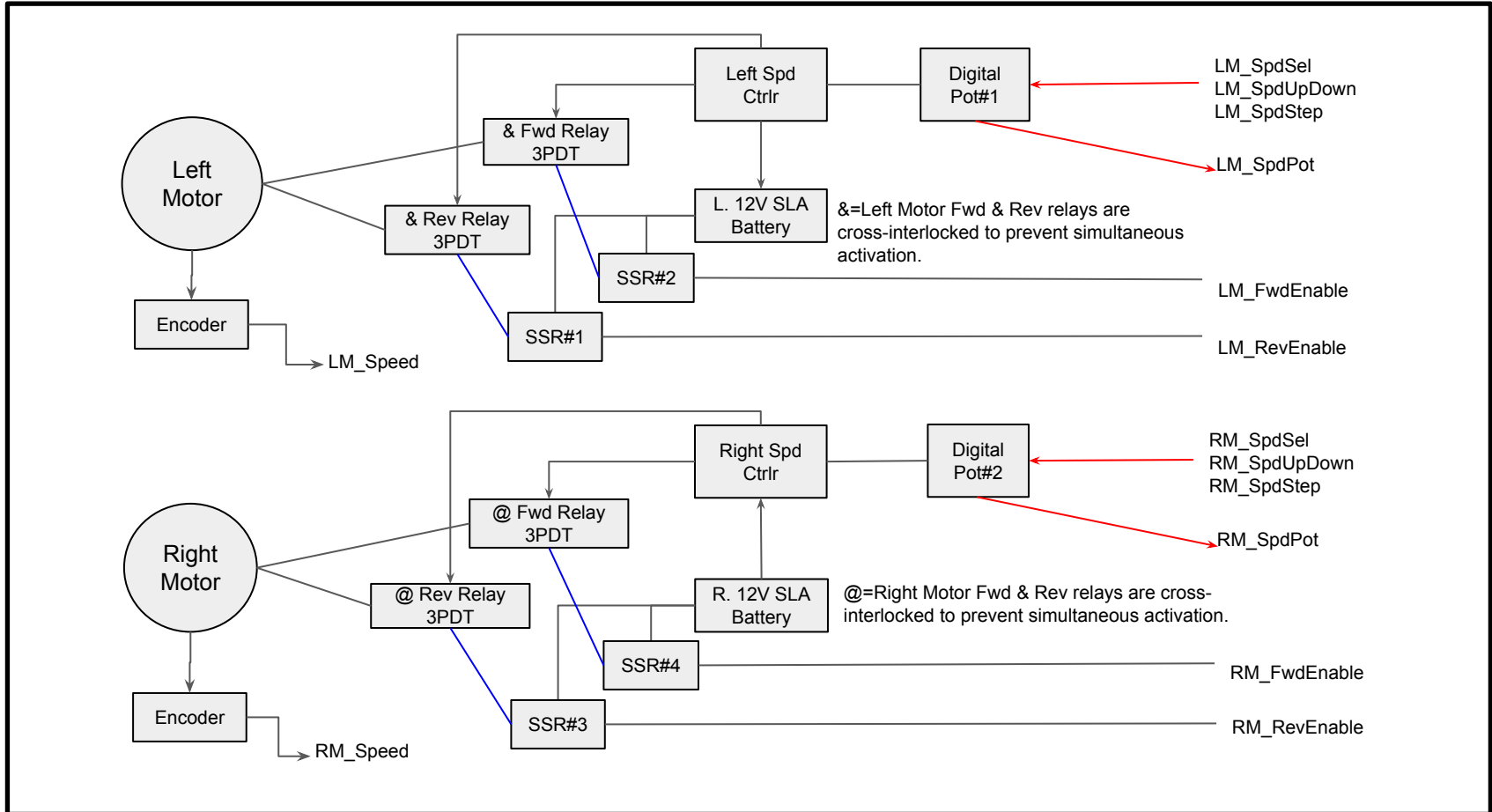
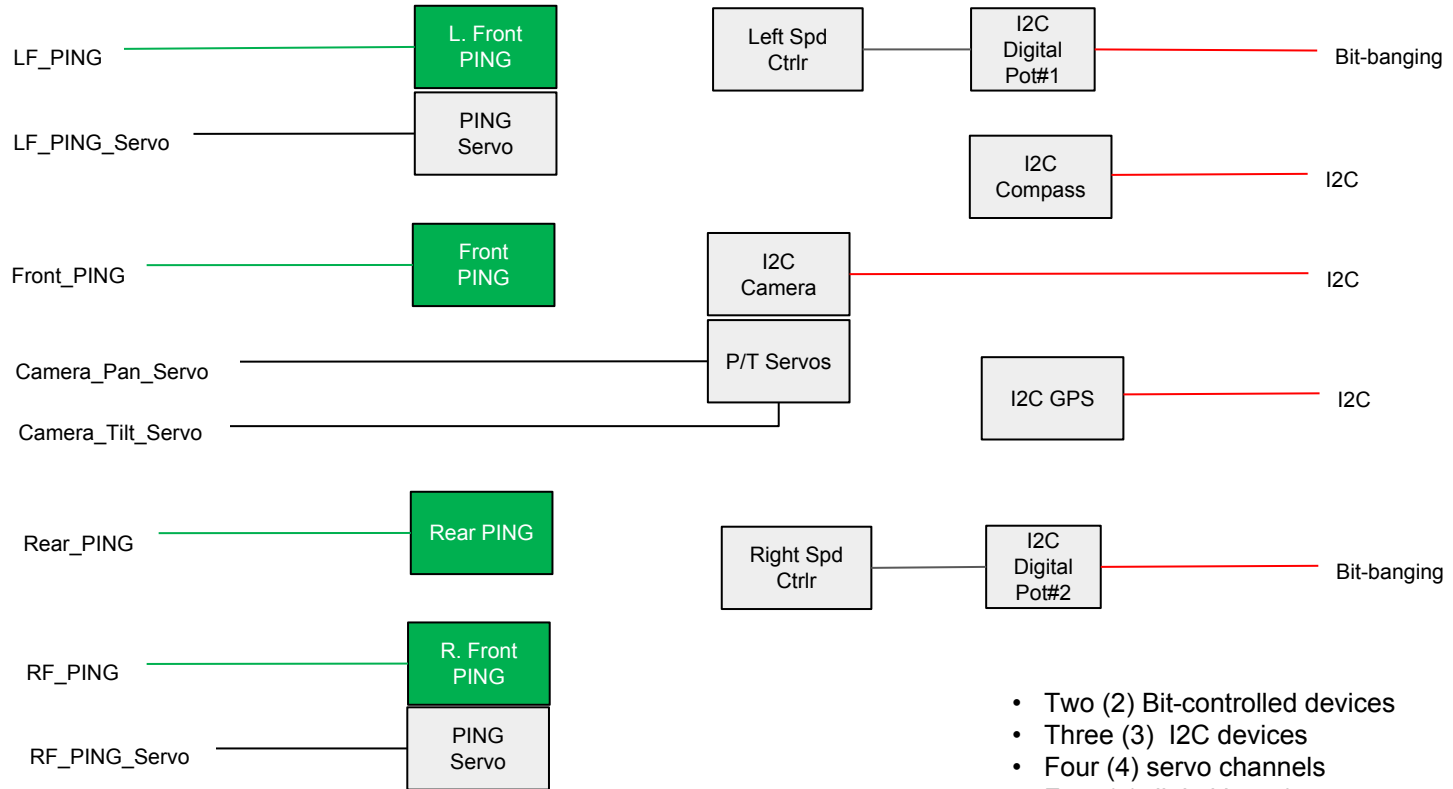


# Omicron Main Drive Motor Controls



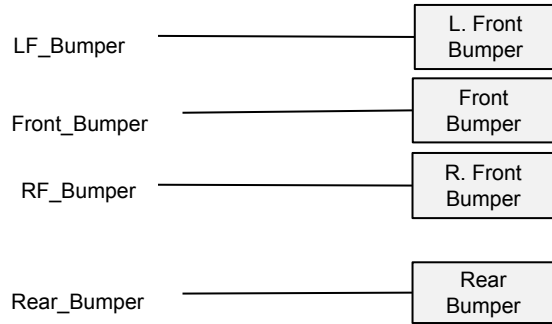
# Omicron I2C & Servo Controlled Bus Devices



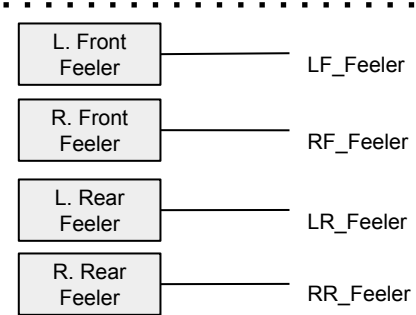
- Two (2) Bit-controlled devices
- Three (3) I2C devices
- Four (4) servo channels
- Four (4) digital input/outputs

# Omicron Bit Input (Digital) Type Sensors

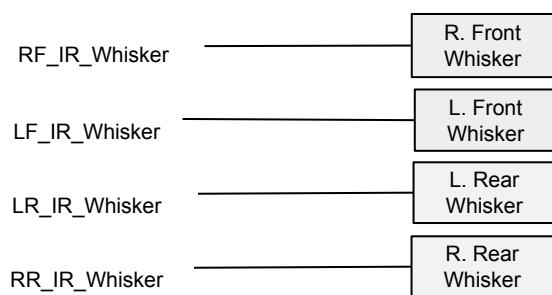
Passive Bumpers (8) digital inputs, (4) outputs



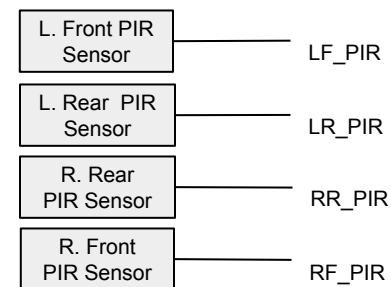
Passive Feelers (4) digital inputs



Active IR Whiskers (4) digital inputs



Passive InfraRed Sensors (4) digital inputs



Sixteen (20) digital inputs

# Omicron I2C, Bumpers, Whiskers, Feelers, PINGs, & Other Interesting Sensors

- Sixteen (20) digital inputs for bumpers, whiskers, feelers, & PIR sensors
- Four (4) digital I/O for triggering & reading PING sensors
- Four (4) digital outputs to reset bumper latches
- Four (4) digital outputs for servo controls
- Six (6) digital outputs for drive motor speed ctrl
- Four (4) digital outputs for drive motor dir. ctrls
- Two (2) analog inputs for digital pot drive voltage
- Two (2) analog inputs for drive battery current
- Two (2) analog inputs for left/right sound location

- SUMMARY

- 42 digital I/O lines
- 6 analog input lines
- 10 I2C devices on bus

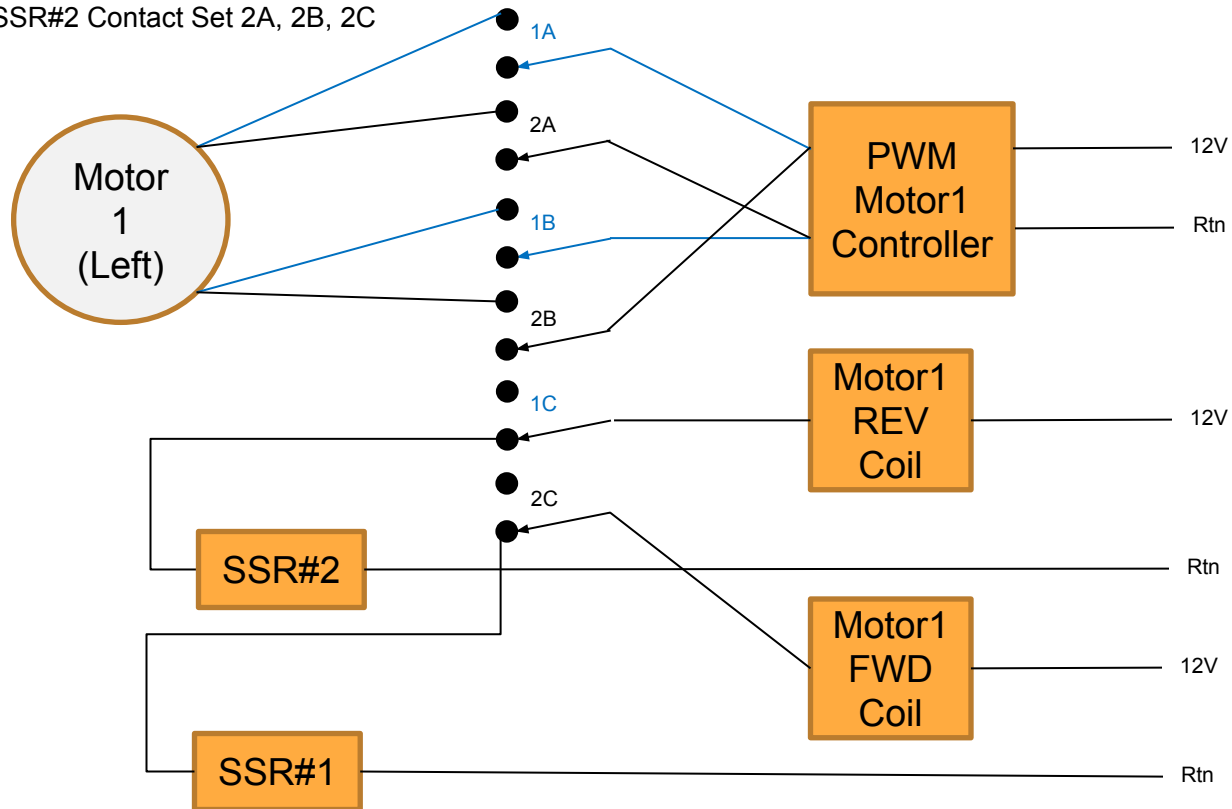
- Two (2) digital potentiometers (6 outputs ea)
- One (1) I2C digital compass
- One (1) I2C GPS module
- One (1) I2C multiple environmental sensor module
- Two (2) I2C digital microphones
- Two (2) I2C time-of-flight distance sensors
- Two (2) I2C proximity, light, RGB, gesture sensors
- One (1) I2C IMU sensor package

Two (2) digital encoders coupled to main motors

# Omicron Motor 1 (Left) Controls Electrical Schematic

Motor 1 FWD: SSR#1 Contact Set 1A, 1B, 1C

Motor 1 REV: SSR#2 Contact Set 2A, 2B, 2C



# Omicron Motor 2 (Right) Controls Electrical Schematic

Motor 2 FWD: SSR#3 Contact Set 1A, 1B, 1C

Motor 2 REV: SSR#4 Contact Set 2A, 2B, 2C

