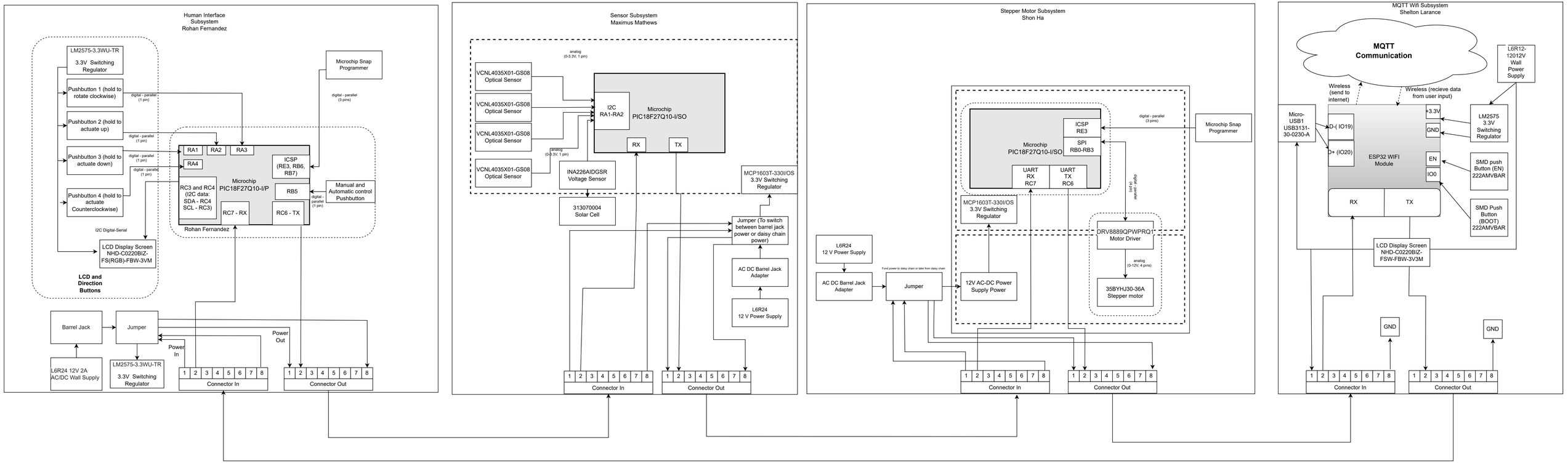
Human Interface Subsystem
Rohan Fernandez
LM2575-3.3WU-TR
3.3V Switching Regulator
Pushbutton 1 (hold to rotate clockwise)
Pushbutton 2 (hold to actuate up)
Pushbutton 3 (hold to actuate down)
Pushbutton 4 (hold to actuate Counterclockwise)
digital - parallel (1 pin)
Microchip Snap Programmer
digital - parallel (3 pins)
RA1
RA2
RA3
RA4
ICSP (RE3, RB6, RB7)
Microchip PIC18F27Q10-I/P
RC3 and RC4 (I2C data: SDA - RC4 SCL - RC3)
RB5
RC7 - RX
RC6 - TX
Manual and Automatic control Pushbutton
Rohan Fernandez
I2C Digital-Serial
LCD Display Screen NHD-C0220BIZ-FS(RGB)-FBW-3VM
LCD and Direction Buttons
Barrel Jack
Jumper
Power In
Power Out
L6R24 12V 2A AC/DC Wall Supply
LM2575-3.3WU-TR
3.3V Switching Regulator
Connector In
Connector Out
Sensor Subsystem
Maximus Mathews
VCNL4035X01-GS08 Optical Sensor
analog (0-3.3V, 1 pin)
I2C RA1-RA2
Microchip PIC18F27Q10-I/SO
RX
TX
INA226AIDGSR Voltage Sensor
313070004 Solar Cell
MCP1603T-330I/OS 3.3V Switching Regulator
Jumper (To switch between barrel jack power or daisy chain power)
AC DC Barrel Jack Adapter
L6R24 12 V Power Supply
Connector In
Connector Out
Stepper Motor Subsystem
Shon Ha
Microchip PIC18F27Q10-I/SO
ICSP RE3
SPI RB0-RB3
UART RX RC7
UART TX RC6
digital - parallel (3 pins)
Microchip Snap Programmer
digital - parallel (4 pins)
MCP1603T-330I/OS 3.3V Switching Regulator
DRV8889QPWPRQ1 Motor Driver
analog (0-12V, 4 pins)
35BYHJ30-36A Stepper motor
L6R24 12 V Power Supply
AC DC Barrel Jack Adapter
Fund power to daisy chain or take from daisy chain
Jumper
12V AC-DC Power Supply Power
Connector In
Connector Out
MQTT Wifi Subsystem
Shelton Larance
MQTT Communication
Wireless (send to internet)
Wireless (recieve data from user input)
L6R12-12012V Wall Power Supply
Micro-USB1 USB3131-30-0230-A
D-(IO19)
D+ (IO20)
ESP32 WIFI Module
+3.3V
GND
EN
IO0
RX
TX
LM2575 3.3V Switching Regulator
SMD push Button (EN) 222AMVBAR
SMD Push Button (BOOT) 222AMVBAR
LCD Display Screen NHD-C0220BIZ-FSW-FBW-3V3M
GND
GND
Connector In
Connector Out