Block Diagram Human Machine Interface Subsystem -- Team 202: XYZ

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MQTT Server

Wireless (WiFi)

Wireless (WiFi)

Microchip Snap
Programmer

Manufacturer
Part #4
3.3V 1.5A AC-DC
Wall Power Supply

publish
EGR314_Team202

subscribe
TBD

ESP32 Wifi Module

SERIAL
RX,TX

digital - parallel
(3 pins)

Pushbuttons/Control
Pad

digital - parallel
(1 pin)

digital - serial
(UART, 2 pins)

UART
RXY-Z

ICSP
RXY-Z

DI
RXY

PWM
RXY-Z

Sensor Input

analog
(0-3.3V, 1 pin)

ADC
RXY

Microchip
PIC18F47Q10-I/P

DI2
RXY

SCL
RXY

SCK
RXY

SDA
RXY

analog digital
output
(0-3.3V, 1 pin)

analog- Clock
(0-3.3V, 1 pin)

analog digital
output
(0-3.3V, 1 pin)

digital - parallel
(1 pin)

digital - parallel
(1 pin)

Manufacturer
Part #3
12V 1A AC-DC Wall
Power Supply

Manufacturer
Part #5
Pull Down Resistor
(~10K)

analog
(0-12V, 1 pin)

OLED Display

Alex Dooley

Manufacturer
Part #2
Motor Driver

analog
(0-12V, 2 pins)

Manufacturer
Part #1
12V High-Power 25D
mm Gearmotor