Step by Step Process on How to make the Product

Part 1: PREPARING THE CONNECTION

1. Using a soldering Iron set to 350deg. Celsius, solder some wires to the output pin of the components.
2. Solder some wires to the LCD pins: VCC, GND, SDA, and SCL. Add some shrinkable tubes or kapton tape to prevent pins from shorting with other components.
3. Solder some wires to the PMS5003 module pins: VCC, GND, RST, TX and RX. Add some shrinkable tubes or kapton tape to prevent pins from shorting with other components.
4. The next one to solder some wires is on the NRF24L01 Module, the output pins involved are: 3.3, GND, CE, CSN, MOSI, MISO, and SCK. Add some shrinkable tubes or kapton tape to prevent pins from shorting with other components.
5. Next is to solder some wires on the SGP30 module pins: VCC, GND, SDA, and SCL. Add some shrinkable tubes.
6. Solder also wires on the MQ131 module pins: VCC, GND, AO, and DO. Add some shrinkable tubes.
7. Finally, to solder some wires on the IRFZ44n on its pins: Gate, Source, and Drain. Add some shrinkable tubes also.

Part 2: PLACING THE COMPONENTS

1. The first thing is to install the LCD.
2. Install the MQ131 in its place.
3. Place the SGP30 and PMS5003.
4. Install the DC Exhaust Fans in its place.
5. And lastly, install the Arduino Mega 2560.

Part 3: CONNECTING TO THE ARDUINO.

1. You may connect to the bottom side of the Arduino Mega’s PCB where the pins are soldered or you may install a male pin header for your connections.
2. First is to connect the LCD pins. Cut the wires to the appropriate length, in a way that nothing will snap when opened. Connect the VCC of the LCD to the 5V of the Arduino and GND to GND. Connect SDA to pin A4 and SCL pin to pin A5 of the Arduino.
3. The next thing is to connect the SGP30 pins. Cut the wires to the appropriate length, in a way that nothing will snap when opened. Connect the VCC of the SGP30 to the 5V of the Arduino and GND to GND. Connect SDA to pin A4 and SCL pin to pin A5 of the Arduino (parallel to the LCD).
4. Next connect the MQ131 pins. Cut the wires to the appropriate length, in a way that nothing will snap when opened. Connect the VCC of the MQ131 to the 5V of the Arduino and GND to GND. Connect the AO to pin A0 and DO to pin 2 of the Arduino.
5. Next connect the PMS5003 pins. Cut the wires to the appropriate length, in a way that nothing will snap when opened. Connect the VCC of the PMS5003 to the 5V of the Arduino and GND to GND. Connect the TX of the PMS5003 to RX1 of the Arduino and RX of the PMS5003 to TX1 of the Arduino.
6. Now it’s time to connect the MOSFET (IRFZ44N) and the Fan. Connect the VCC of the Fan to the Vin Pin of the Arduino. The GND of the fan to the Drain of the IRFZ44N, the Source of the IRFZ44N to the GND of the Arduino and finally the Gate of the IRFZ44N to pin 49 of the Arduino (with 10K Ohm pull up resistor).
7. Next is to connect the HC05 Module to the Arduino, since the HC05 Module only accepts 3.3V for its power, connect the VCC pin of the HC05 Module to the 3.3V pin of the Arduino and GND to GND. Then connect the TX and RX of the WIFI Module to pin 19 (RX1) and pin 18(TX1) of the Arduino respectively.
8. Finally, connect the NRF24L01 Module to the Arduino. Connect the VCC and GND pin of the NRF24L01 Module to 5V and GND of the Arduino respectively. Then connect the data pins; RST to pin 48, MISO to pin 50, MOSI to pin 51, and SCK to pin 52.

Part 4: CLOSING THE HOUSING

1. Before Closing the housing, make sure to align the wires neatly.
2. Load the Firmware.
3. Close the back cover of the housing. Done.