general_layout

File: general_layout.kicad_sch

relays_and_float_switches

File: relays_and_float_switches.kicad_sch

H1
MountingHole

H3
MountingHole

H2
MountingHole

H4
MountingHole

J5
OLED

+5V 1
GND 2
3
OLED_RST   4
OLED_SCL   5
OLED_SDA

J1
Barrel_Jack_Switch

SW1
SW_SPDT

1
2   GND
3
+24V

GND

1
3
2

GND

U1
Buck_Converter

+24V 1 IN+   OUT+ 3 +3V3
      2 IN−   OUT− 4

GND   GND

U2
Buck_Converter

+24V 1 IN+   OUT+ 3 +5V
      2 IN−   OUT− 4

GND   GND

J2
Conn_01x20

Float_Chamber1_min   PB12 1
Float_Chamber1_max   PB13 2
Float_Chamber2_min   PB14 3
Float_Chamber2_max   PB15 4
Float_Chamber3_min   PA8   5
Float_Chamber3_max   PA9   6
Float_Chamber4_min   PA10 7
Float_Chamber4_max   PA11 8
Electrode1_Output   PA12 9
Electrode2_Output   PA15 10
Electrode3_Output   PB3   11
Electrode4_Output   PB4   12
Solenoid1_Output   PB5   13
Solenoid2_Output   PB6   14
Solenoid3_Output   PB7   15
Solenoid4_Output   PB8   16
OLED_SDA   PB9   17
+5V   5V   18
GND   G   19
+3V3   3V3   20

J4
Conn_01x20

1   5V
2   G
3   3V3
4   PB10
5   PB2   OLED_SCL
6   PB1   OLED_RST
7   PB0   Gas_Pressure_Out
8   PA7
9   PA6
10 PA5
11 PA4
12 PA3   Gas_Flowrate_Tx
13 PA2   Gas_Flowrate_Rx
14 PA1
15 PA0
16 NRST
17 PC15
18 PC14
19 PC13
20 VB

J3
Conn_01x20

1   5V
2   G
3   3V3
4   PB10
5   PB2
6   PB1
7   PB0
8   PA7
9   PA6
10 PA5
11 PA4
12 PA3
13 PA2
14 PA1
15 PA0
16 NRST
17 PC15
18 PC14
19 PC13
20 VB

J6
Gas_Pressure_Sensor

+24V
1
2
3

Gas_Pressure_Out

150R
R1

GND

GND

J7
Gas_Flowrate_Concentration_Sensor

+3V3
1
Gas_Flowrate_Tx   2
3
Gas_Flowrate_Rx   4

GND

K1
SANYOU_SRD_Form_C
+5V
J8
Electrode1_Output
D1
D
LED
D5
330R
R2
Q1
2N2219
GND

K2
SANYOU_SRD_Form_C
+5V
J9
Electrode2_Output
D2
D
LED
D6
330R
R3
Q2
2N2219
GND

K3
SANYOU_SRD_Form_C
+5V
J10
Electrode3_Output
D3
D
LED
D7
330R
R4
Q3
2N2219
GND

K4
SANYOU_SRD_Form_C
+5V
J11
Electrode4_Output
D4
D
LED
D8
330R
R5
Q4
2N2219
GND

K5
SANYOU_SRD_Form_C
+5V
J12
Solenoid1_Output
D9
D
LED
D13
330R
R6
Q5
2N2219
GND

K6
SANYOU_SRD_Form_C
+5V
J13
Solenoid2_Output
D10
D
LED
D14
330R
R7
Q6
2N2219
GND

K7
SANYOU_SRD_Form_C
+5V
J14
Solenoid3_Output
D11
D
LED
D15
330R
R8
Q7
2N2219
GND

K8
SANYOU_SRD_Form_C
+5V
J15
Solenoid4_Output
D12
D
LED
D16
330R
R9
Q8
2N2219
GND

+3V3
J16
Float_Chamber1_min
1k
R10
GND

+3V3
J17
Float_Chamber2_min
1k
R11
GND

+3V3
J18
Float_Chamber3_min
1k
R12
GND

+3V3
J19
Float_Chamber4_min
1k
R13
GND

+3V3
J20
Float_Chamber1_max
1k
R14
GND

+3V3
J21
Float_Chamber2_max
1k
R15
GND

+3V3
J22
Float_Chamber3_max
1k
R16
GND

+3V3
J23
Float_Chamber4_max
1k
R17
GND