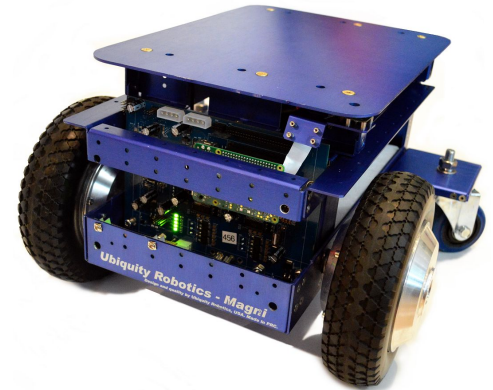# Magni - Master Control Board Pinout

Ubiquity Robotics

P702

P506→

P704
P705

P507→

JTAG

P701

P508→

FRONT SIDE

P601

P*1001

Ubiquity Robotics

BACK SIDE

P505

P504

SENSE_M504

SENSE_M505
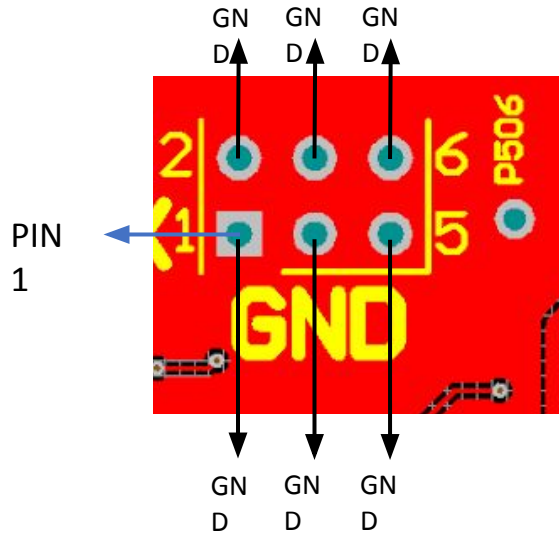
M505

M504

Ubiquity Robotics

Front
Side

Ubiquity Robotics
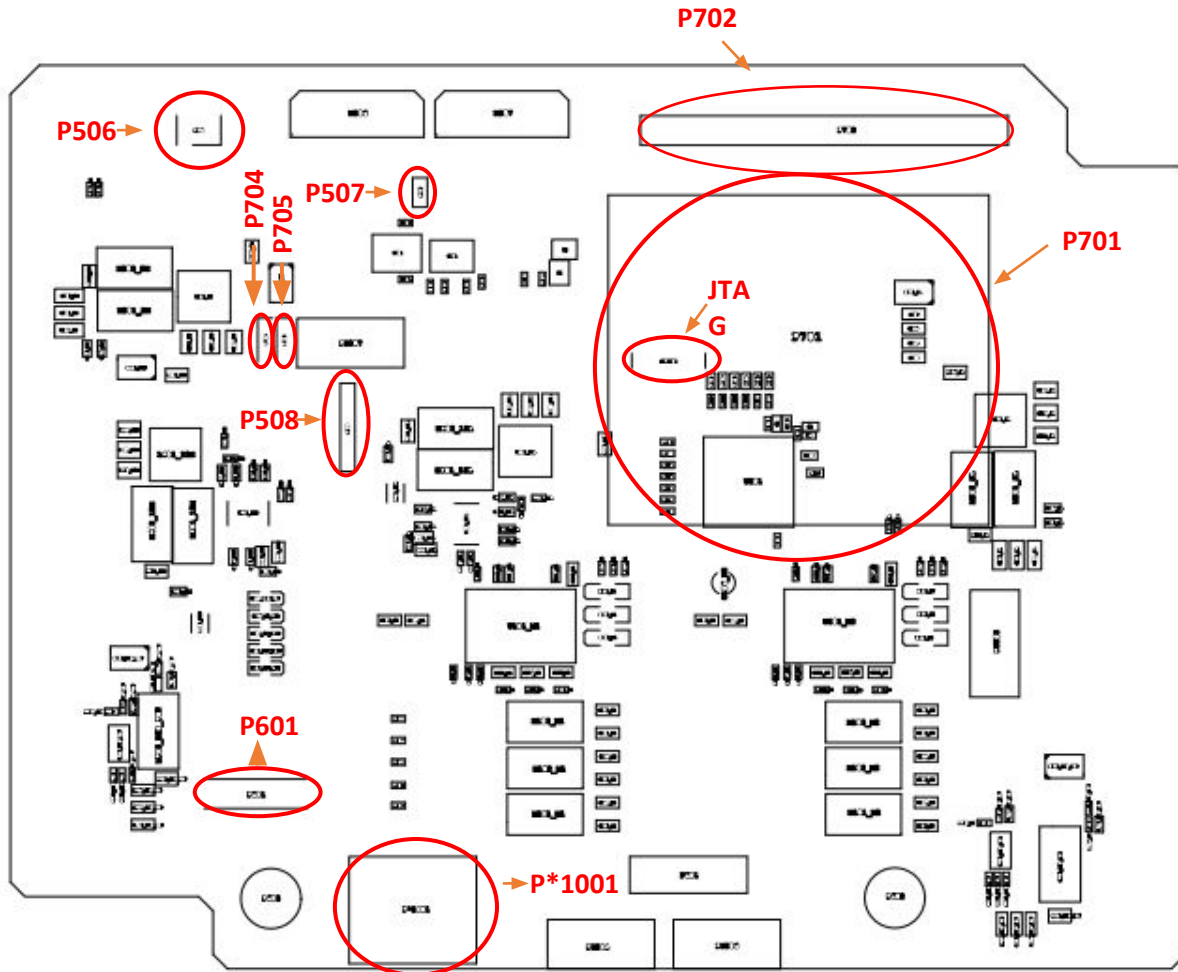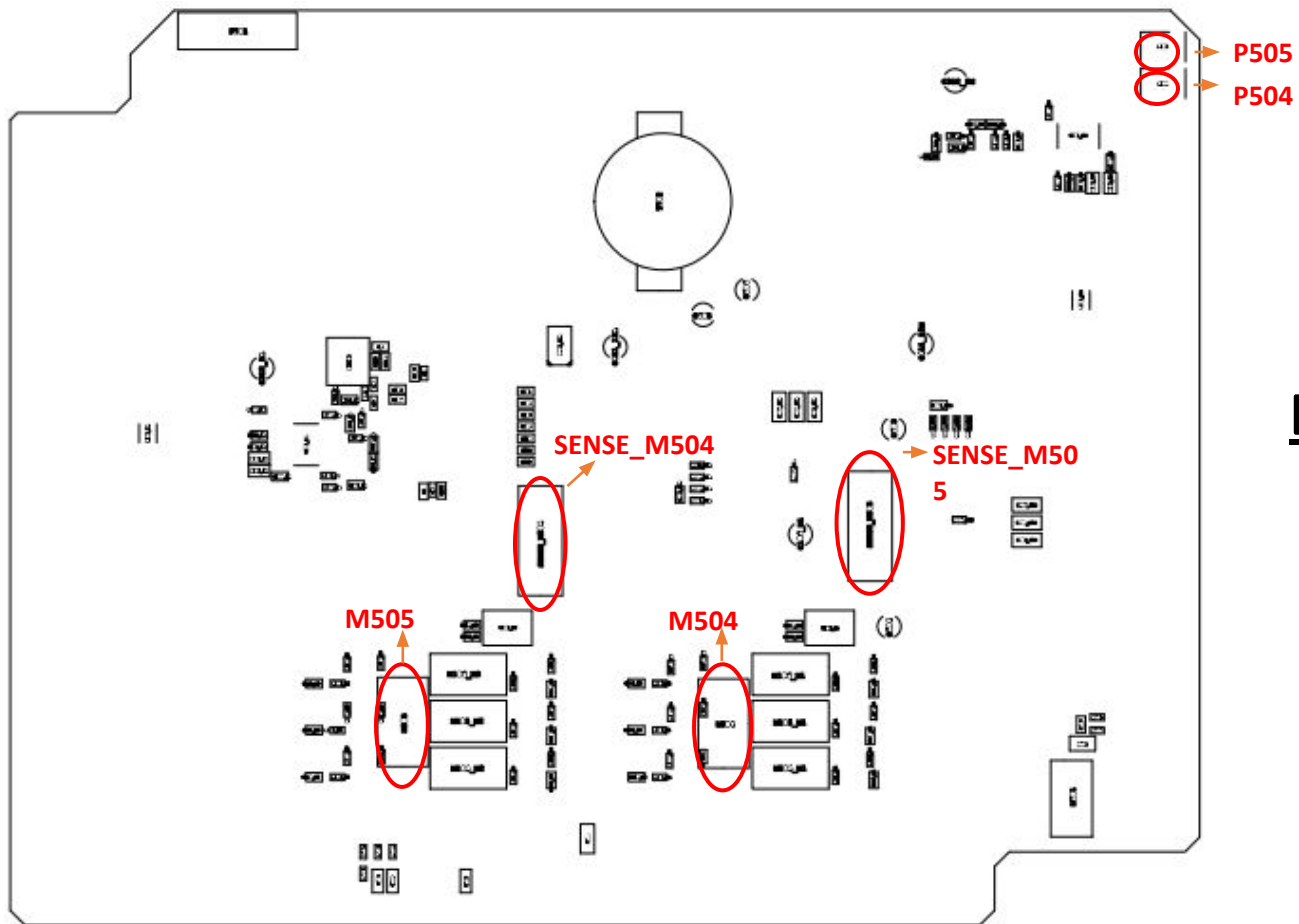
Connector : P506

Pin Number	Pin Description
1	GND
2	GND
3	GND
4	GND
5	GND
6	GND

Ubiquity Robotics

Connector : M506

5V Main (Total 5V Main power 7A, up to 3A used by system 4A min. available to user) Regulated
12V Main (Total 12V Main power 7A, up to 0.5A used by system 6.5A min. available to user) Regulated
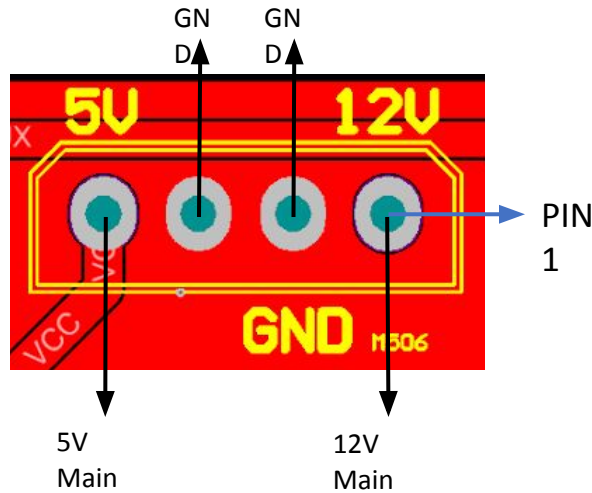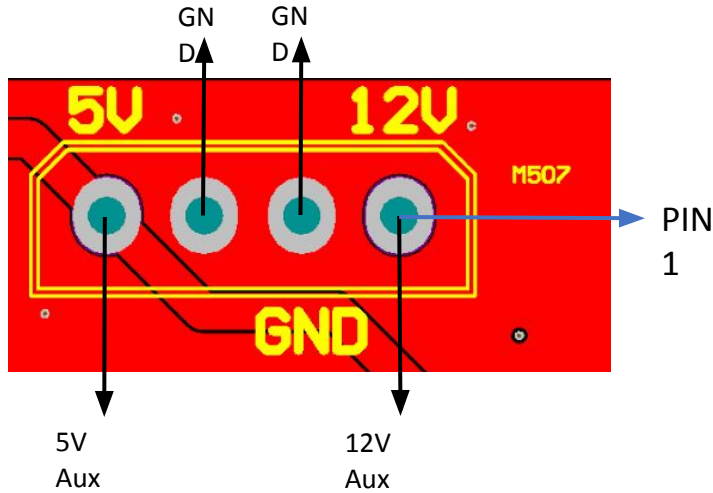

Pin Number	Pin Description
1	12V Main
2	GND
3	GND
4	5V Main

Connector : M507

5V Aux (Total 5V Aux power 7A) Regulated
12V Aux (Total 12V Aux power 7A)
Regulated

Pin Number	Pin Description
1	12V Aux
2	GND
3	GND
4	5V Aux

Connector : P702

24V Battery - 9A limited by pin - Unregulated
5V Main (Total 5V Main power 7A, up to 3A used by
system 4A min. available to user) Regulated
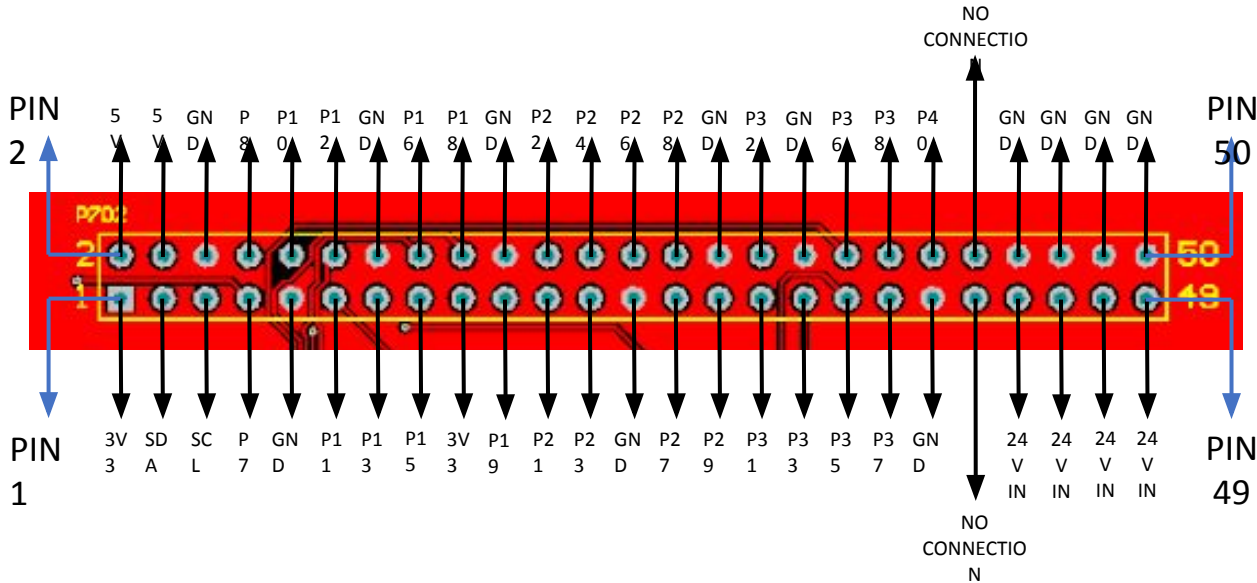
Pin Number	Pin Description
1	3V3
2	5V
3	SDA
4	5V
5	SCL
6	GND
7	P7
8	P8
9	GND
10	P10
11	P11
12	P12
13	P13
14	GND
15	P15

Pin Number	Pin Description
16	P16
17	3V3
18	P18
19	P19
20	GND
21	P21
22	P22
23	P23
24	P24
25	GND
26	P26
27	P27
28	P28
29	P29
30	GND

Pin Number	Pin Description
31	P31
32	P32
33	P33
34	GND
35	P35
36	P36
37	P37
38	P38
39	GND
40	P40
41	NOT CONNECT
42	NOT CONNECT
43	24V IN
44	GND
45	24V IN

Pin Number	Pin Description
46	GND
47	24V IN
48	GND
49	24V IN
50	GND

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Connector : P507

Pin Number	Pin Description
1	UART RX
2	UART TX

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Connector : JTAG201

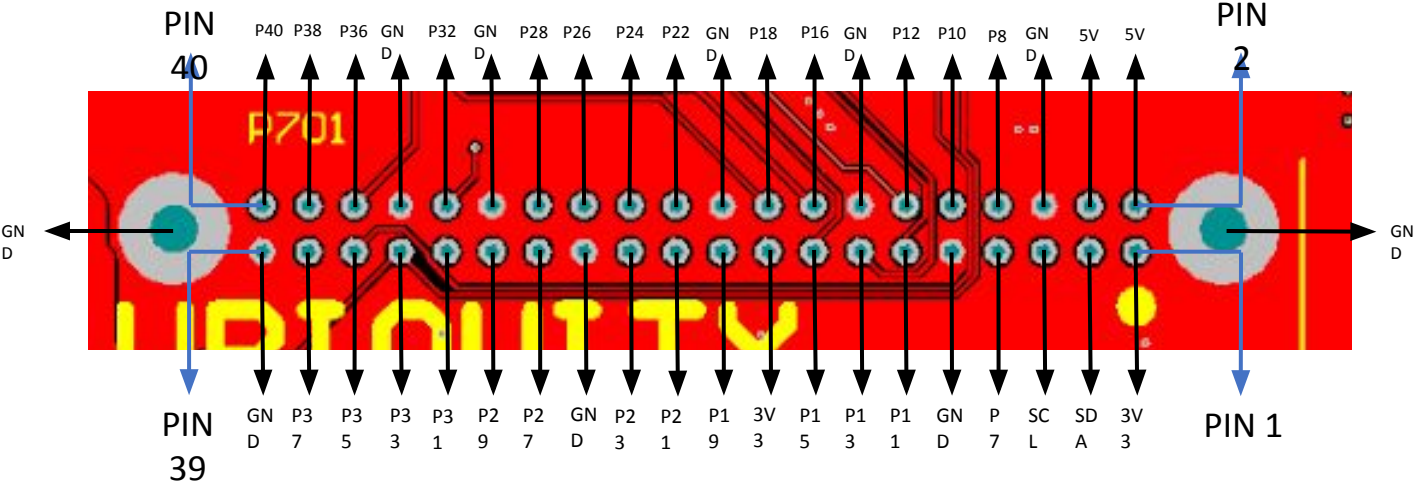5V Main (Total 5V Main power 7A, up to 3A used by system 4A min. available to user) Regulated

Pin Number	Pin Description
1	Program Data
2	Program Clock
3	XRES
4	GND
5	5V

Connector : P701

Raspberry pi 3B+
header
5V Main (Total 5V Main power 7A, up to 3A used by system 4A min. available to user) Regulated
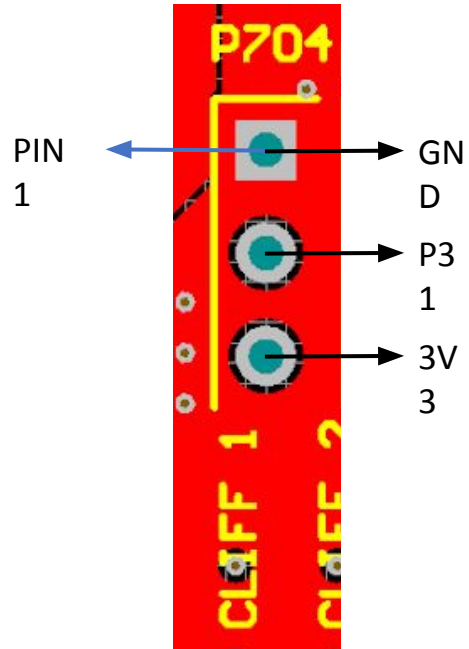
Pin Number	Pin Description	Pin Number	Pin Description	Pin Number	Pin Description
1	3V3	16	P16	31	P31
2	5V	17	3V3	32	P32
3	SDA	18	P18	33	P33
4	5V	19	P19	34	GND
5	SCL	20	GND	35	P35
6	GND	21	P21	36	P36
7	P7	22	P22	37	P37
8	P8	23	P23	38	P38
9	GND	24	P24	39	GND
10	P10	25	GND	40	P40
11	P11	26	P26		
12	P12	27	P27		
13	P13	28	P28		
14	GND	29	P29		
15	P15	30	GND		

Connector : P704

Pin Number	Pin Description
1	GND
2	P31
3	3V3

Ubiquity Robotics
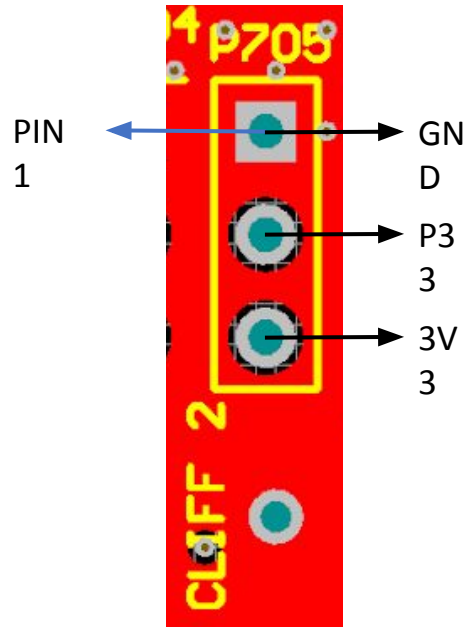
Connector : P705

Pin Number	Pin Description
1	GND
2	P33
3	3V3

Connector : P508

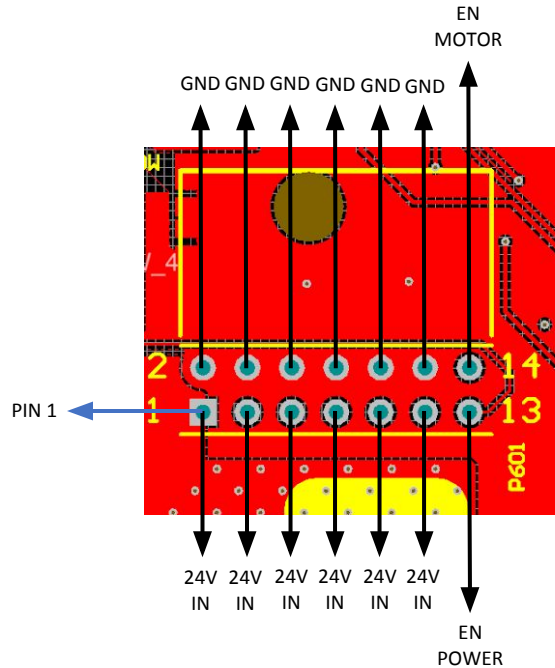5V Main (Total 5V Main power 7A, up to 3A used by system 4A min. available to user)
Regulated
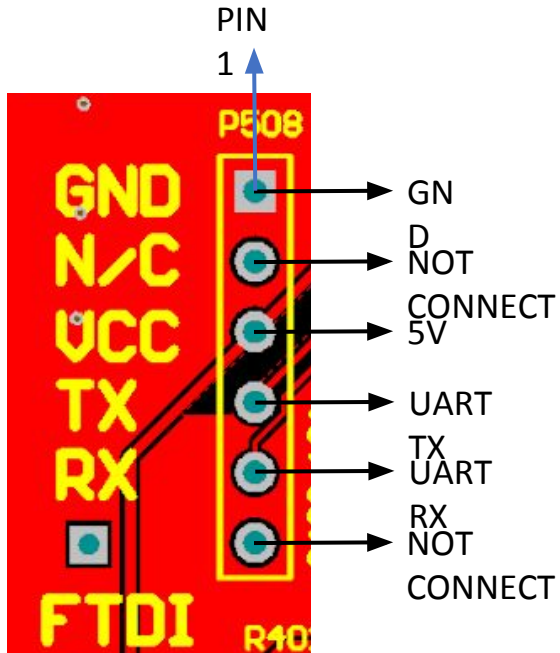
Pin Number	Pin Description
1	GND
2	NOT CONNECT
3	5V
4	UART TX
5	UART RX
6	NOT CONNECT

Connector : P601

24V Battery - 9A limited by pin - unregulated

Pin Number	Pin Description
1	24V IN
2	GND
3	24V IN
4	GND
5	24V IN
6	GND
7	24V IN
8	GND
9	24V IN
10	GND
11	24V IN
12	GND
13	ENABLE POWER
14	ENABLE MOTOR

Connector : P*1001

24V Battery - 9A limited by pin - unregulated
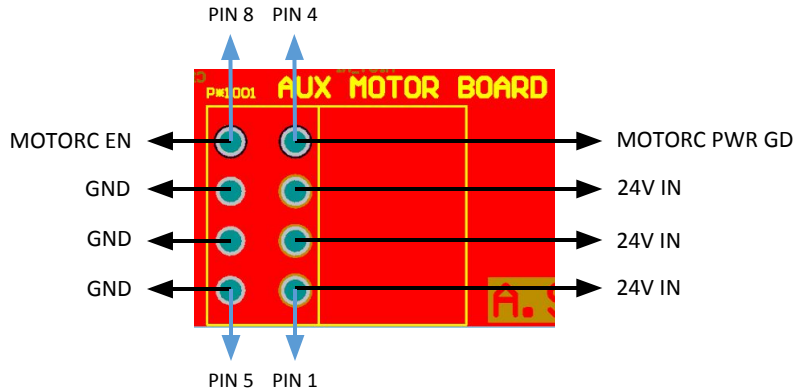
Pin Number	Pin Description
1	24V IN
2	24V IN
3	24V IN
4	MOTORC PWR GD
5	GND
6	GND
7	GND
8	MOTORC EN

<u>Back Side</u>

Ubiquity Robotics

Connector : M505

PIN 1 → Y

G

B
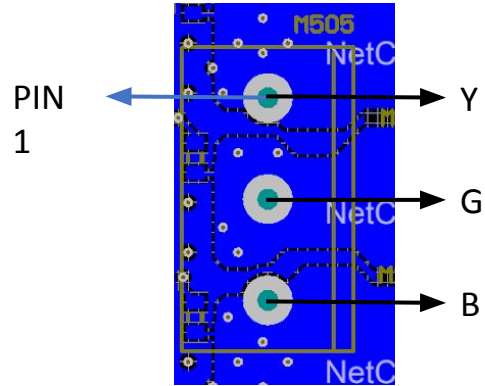
Pin Number	Pin Description
1	Y
2	G
3	B

Connector : M504

PIN 1 → Y

→ G

→ B
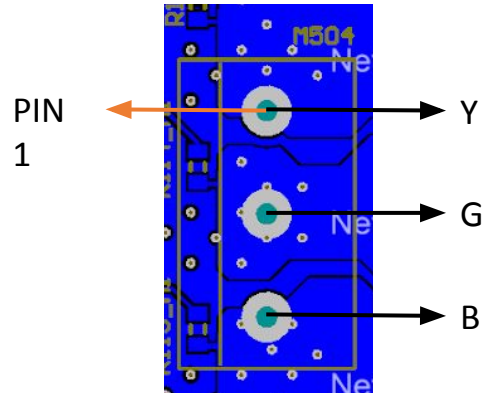
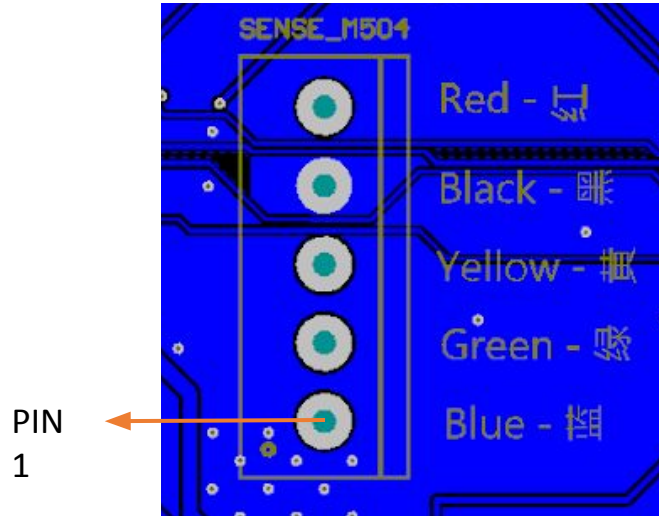| Pin Number	Pin Description
1	Y
2	G
3	B

Connector : SENSE_M505

5V Main (Total 5V Main power 7A, up to 3A used by system 4A min. available to user)
Regulated

PIN
1
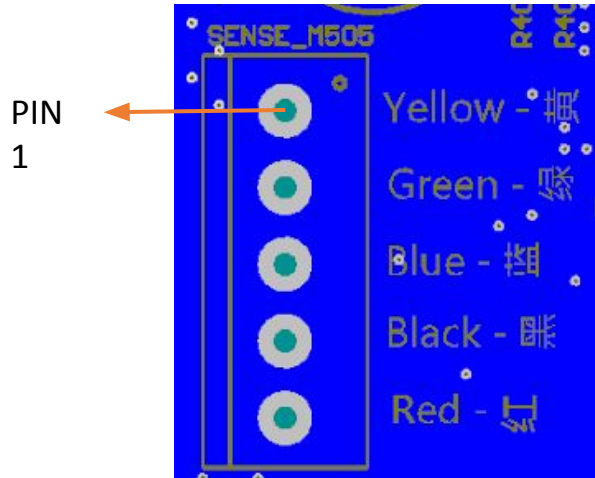
Pin Number	Pin Description
1	Yellow
2	Green
3	Blue
4	Black
5	Red

Connector : SENSE_M504
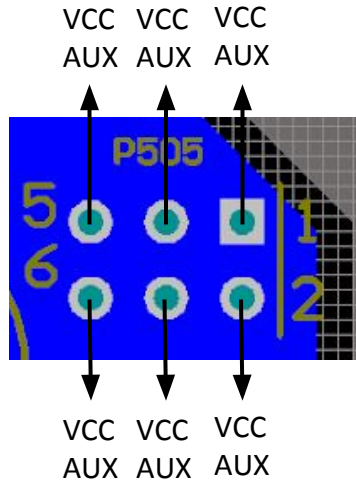
5V Main (Total 5V Main power 7A, up to 3A used by system 4A min. available to user) Regulated

Pin Number	Pin Description
1	Blue
2	Green
3	Yellow
4	Black
5	Red

Connector : P505

5V Aux (Total 5V Aux power 7A)
Regulated

Pin Number	Pin Description
1	VCC AUX
2	VCC AUX
3	VCC AUX
4	VCC AUX
5	VCC AUX
6	VCC AUX

Connector : P504

12V Aux (Total 12V Aux power 7A)
Regulated
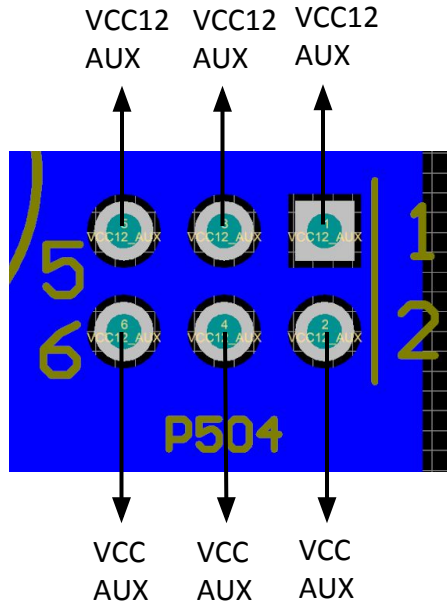
Pin Number	Pin Description
1	VCC12 AUX
2	VCC12 AUX
3	VCC12 AUX
4	VCC12 AUX
5	VCC12 AUX
6	VCC12 AUX

For further questions go to:

https://forum.ubiquityrobotics.com/

or email:

contact@ubiquityrobotics.com

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