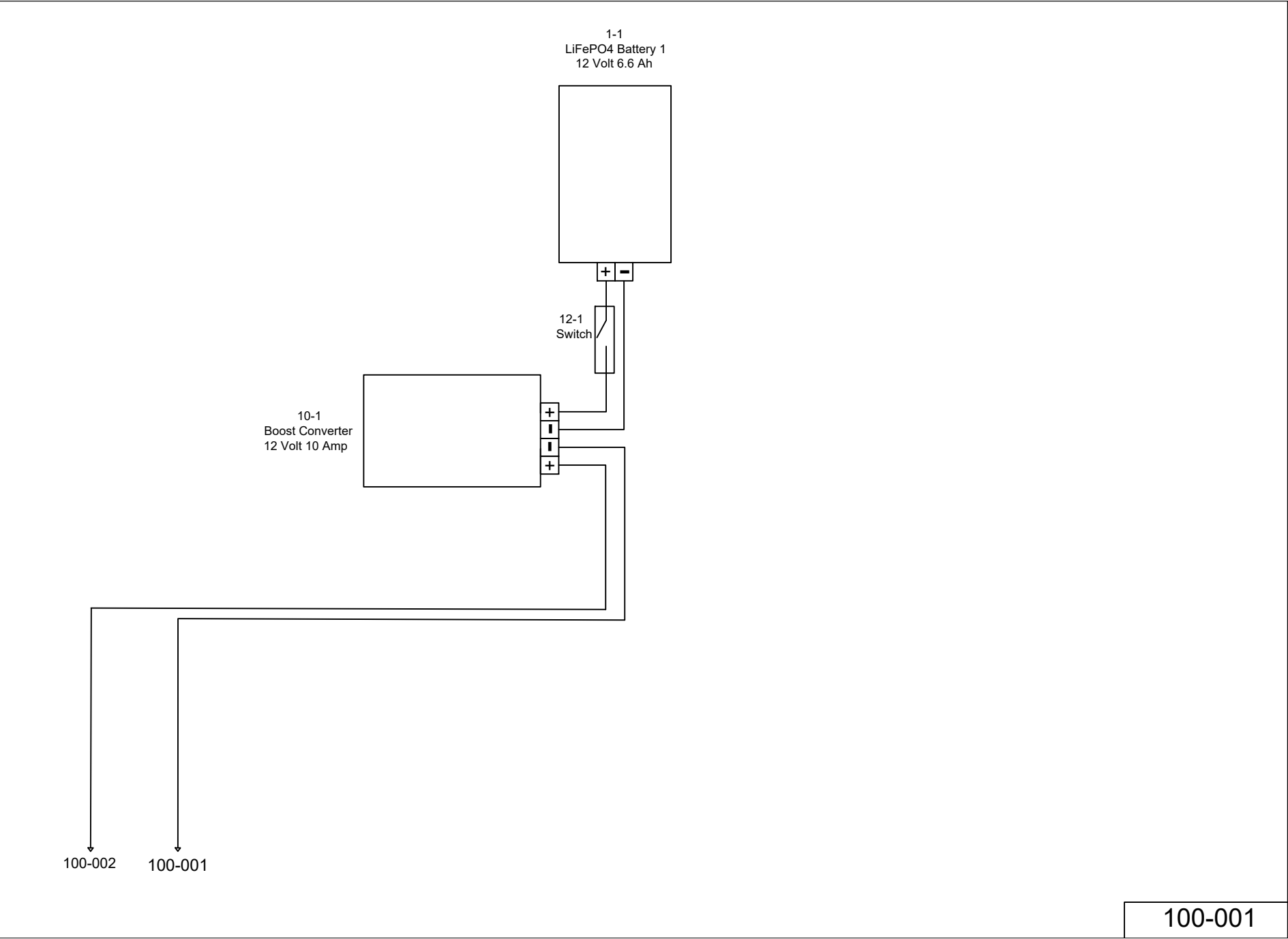
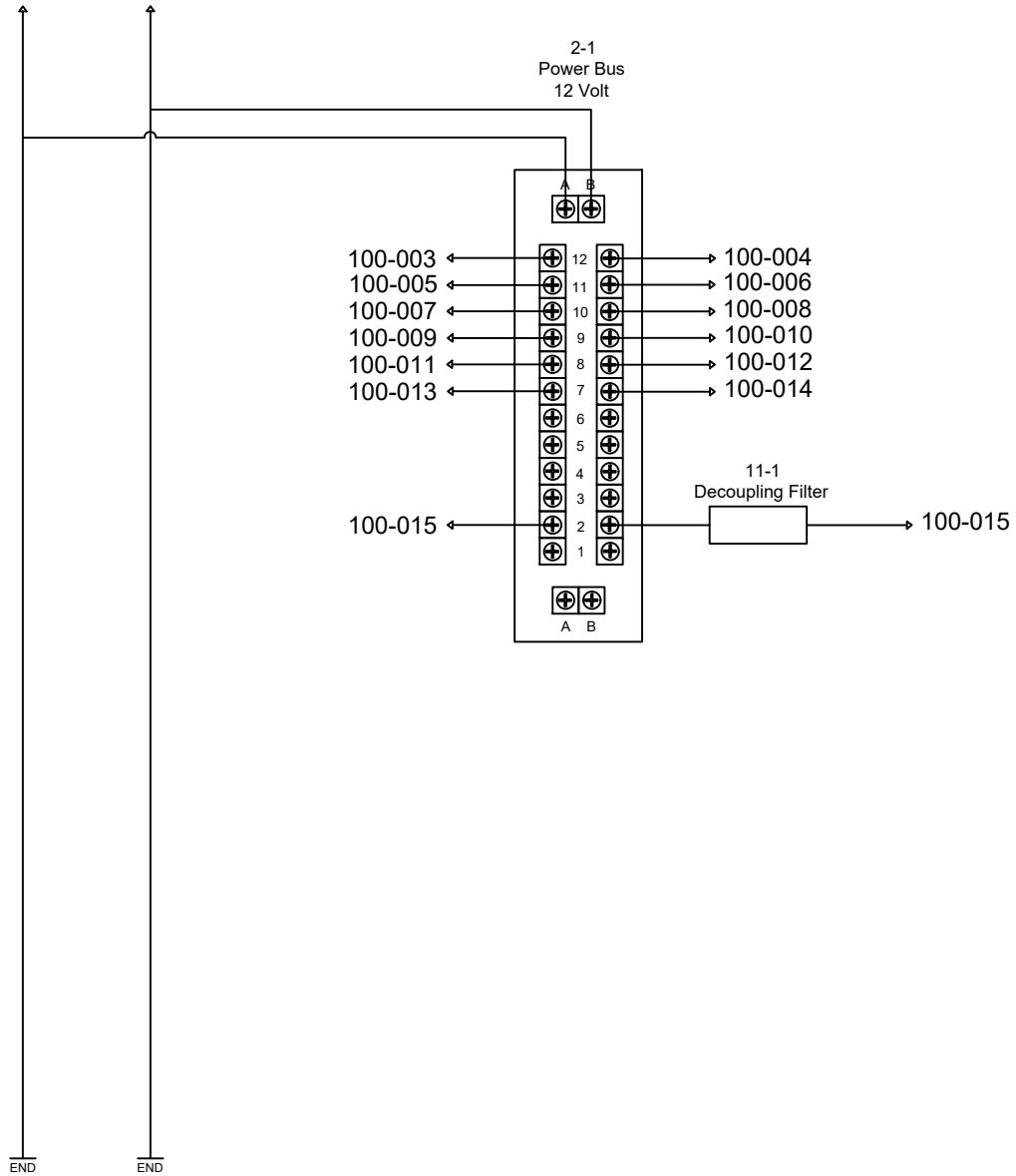


SouthEast Con Robotic Competition 2022 Robotic Drawing Package

#	Product Name	Quantity	#	Product Name	Quantity
1	LiFePO4 Battery 12 V 6.6Ah	1			
2	Power Bus	3			
3	Buck Convertor	3			
4	Raspberry Pi 4B	1			
5	USB-C cord to Raspberry Pi	1			
6	Adafruit 16-Channel 12-bit PWM/Servo Shield	1			
7	H-Bridge L298N Motor Drive Controller Board	3			
8	Arduino Mega 2560	2			
9	Arduino Mega 2560 Power Cord	2			
10	Boost Converter	1			
11	Decoupling Capacitance	3			
12	Switch	2			
13	2-Channel Emergency Stop	1			
14	Line Following Array	3			



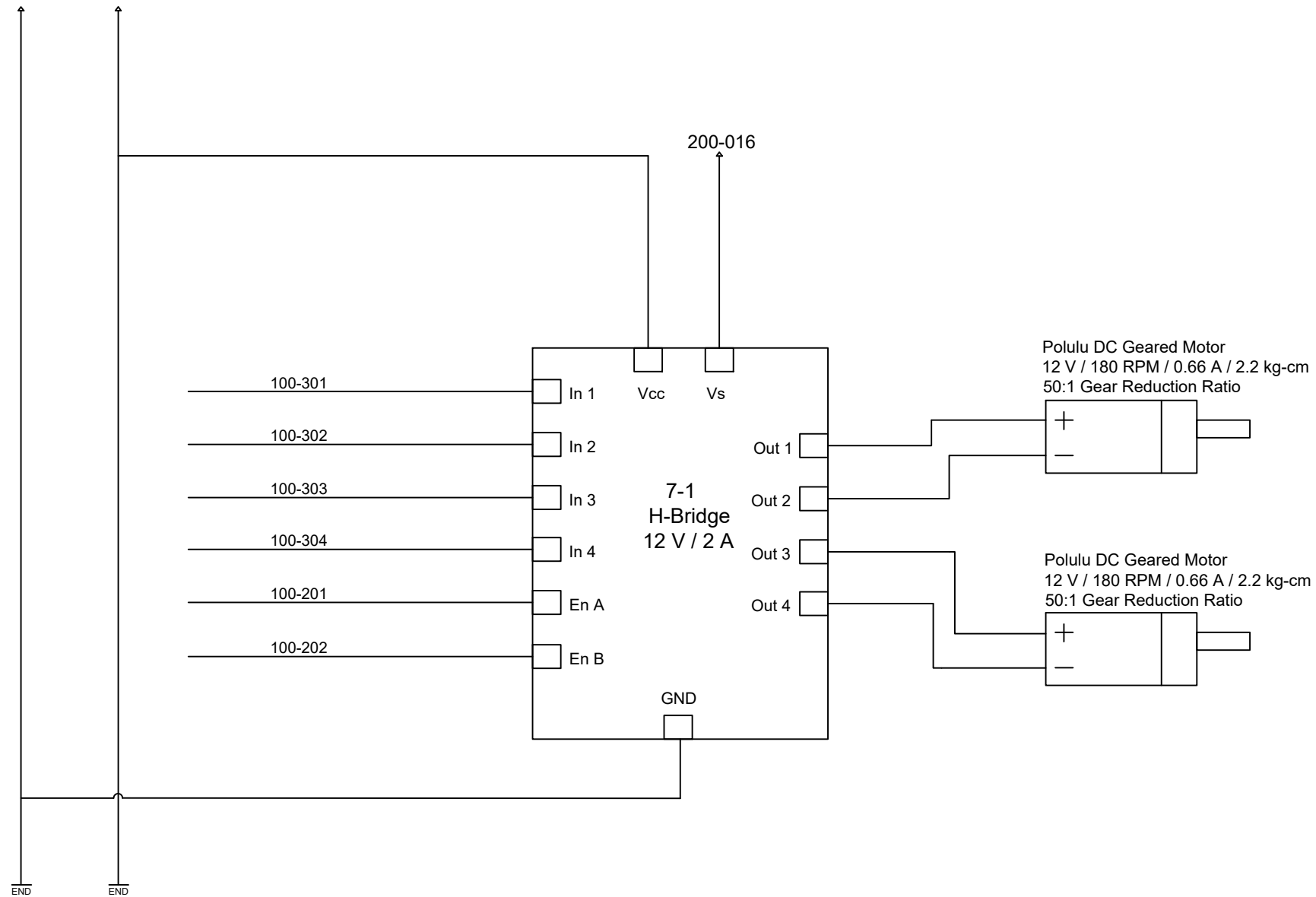
100-001 100-002



100-002

100-003 100-004

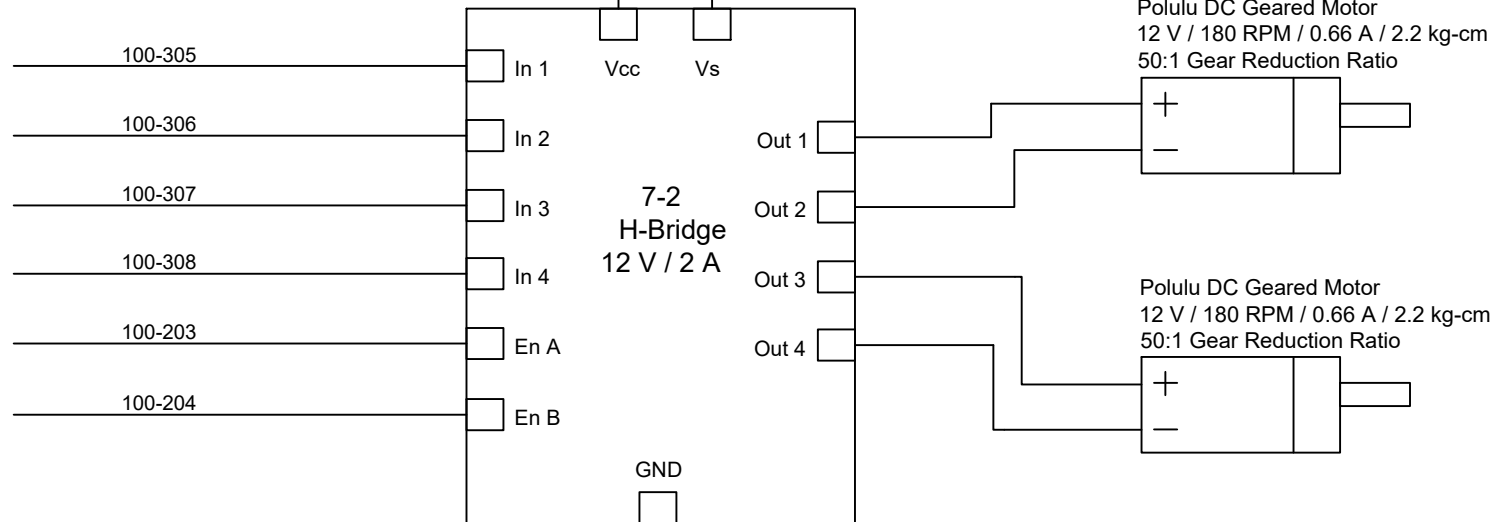
200-016



100-004

100-005 100-006

200-014

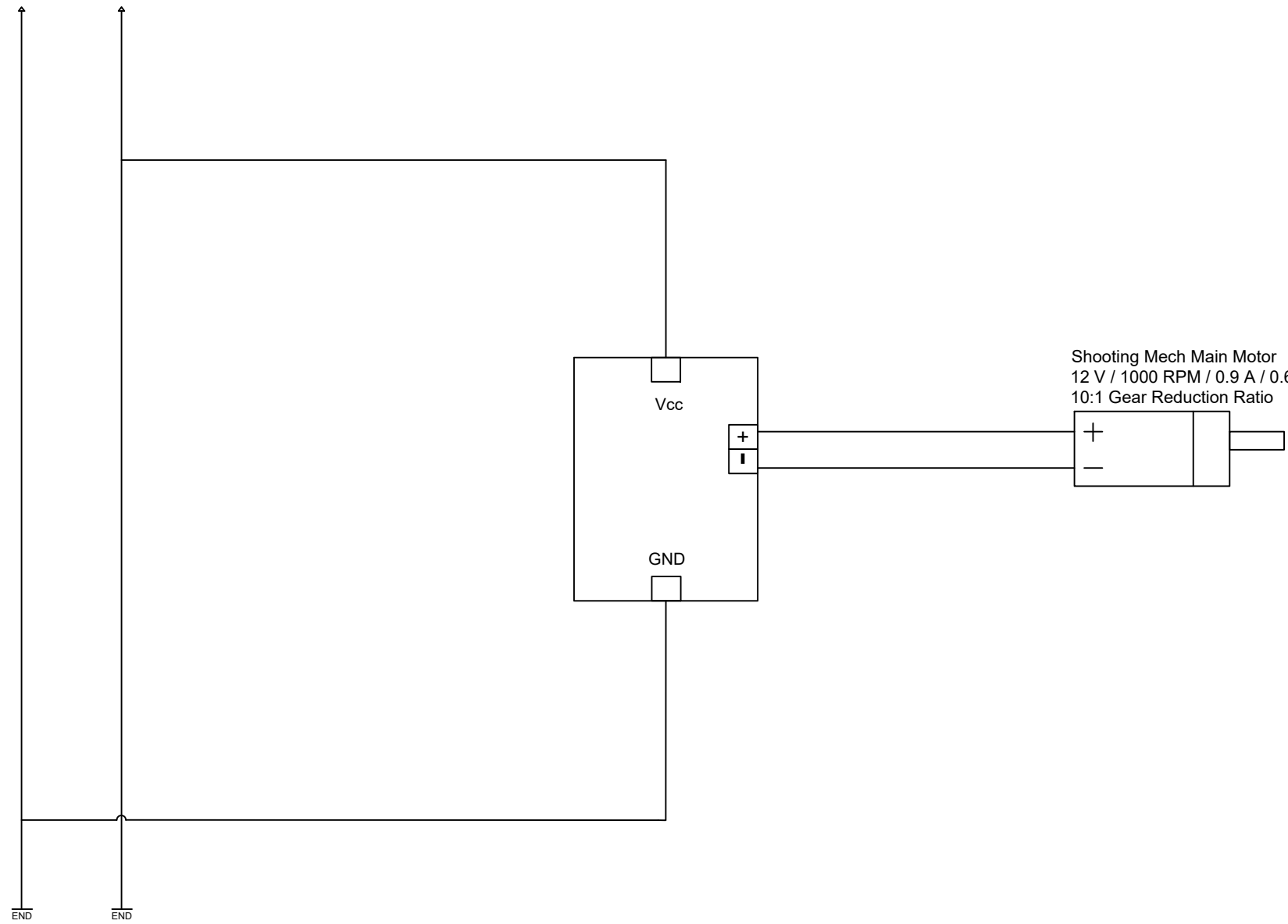


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END

100-006

100-007 100-008

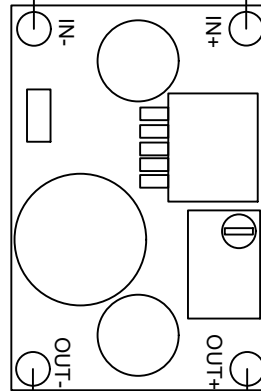


Shooting Mech Main Motor
12 V / 1000 RPM / 0.9 A / 0.66 kg-cm
10:1 Gear Reduction Ratio

100-009

100-010

3-1
Buck Converter 1
12 Volt to 7V



Voltage Regulation knob
clockwise to step voltage up
counter clockwise to step voltage down

END

END

300-001

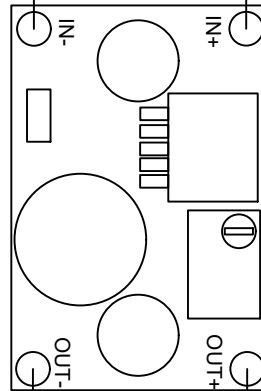
300-002

100-010

100-011

100-012

3-2
Buck Converter 1
12 Volt to 5V



Voltage Regulation knob
clockwise to step voltage up
counter clockwise to step voltage down

END

END

200-001

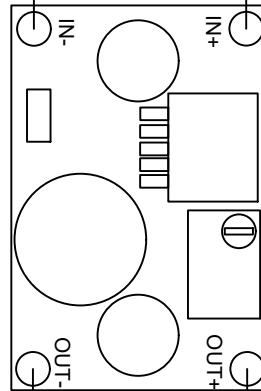
200-002

100-012

100-013

100-014

3-3
Buck Converter 1
12 Volt to 5V



Voltage Regulation knob
clockwise to step voltage up
counter clockwise to step voltage down

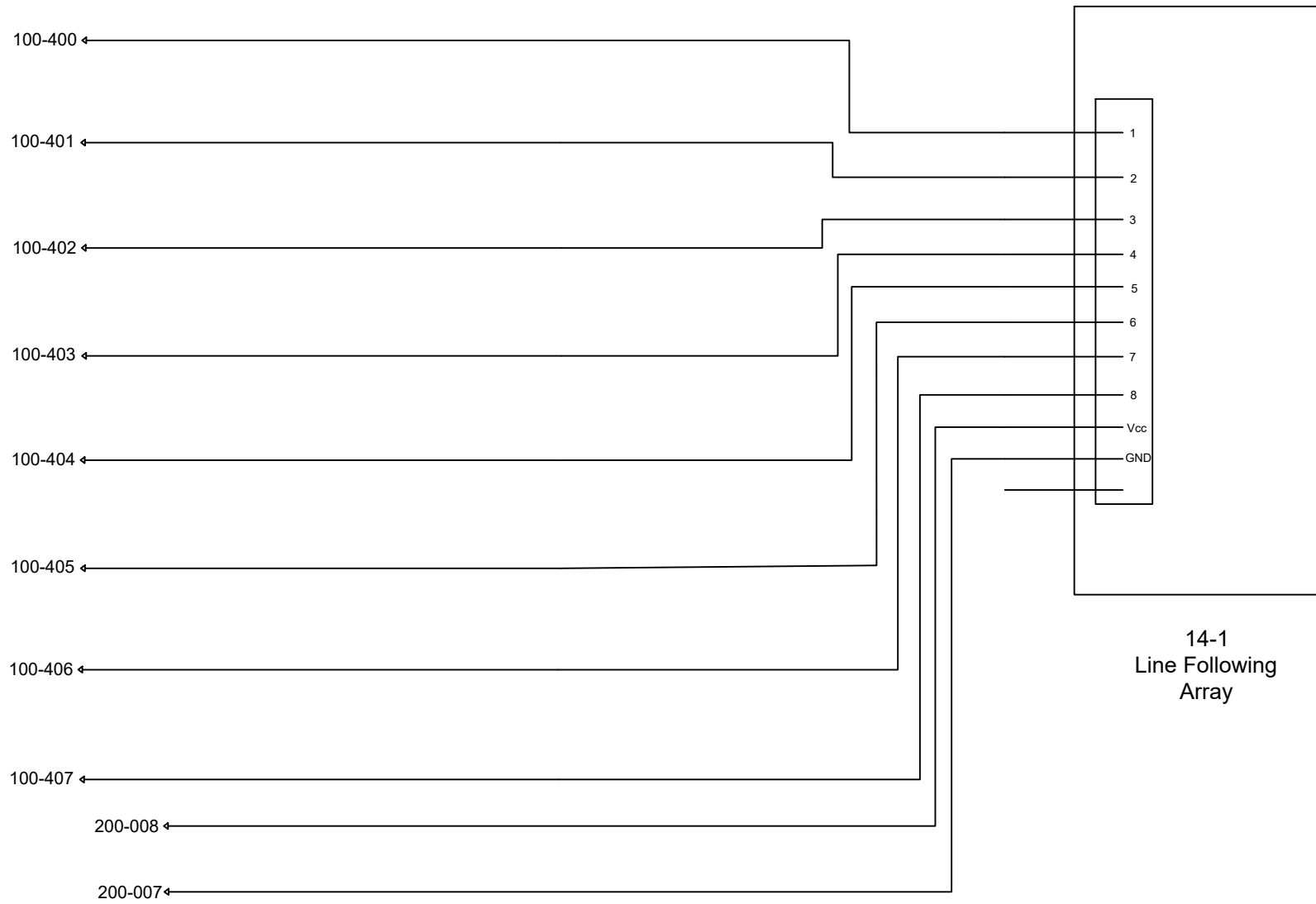
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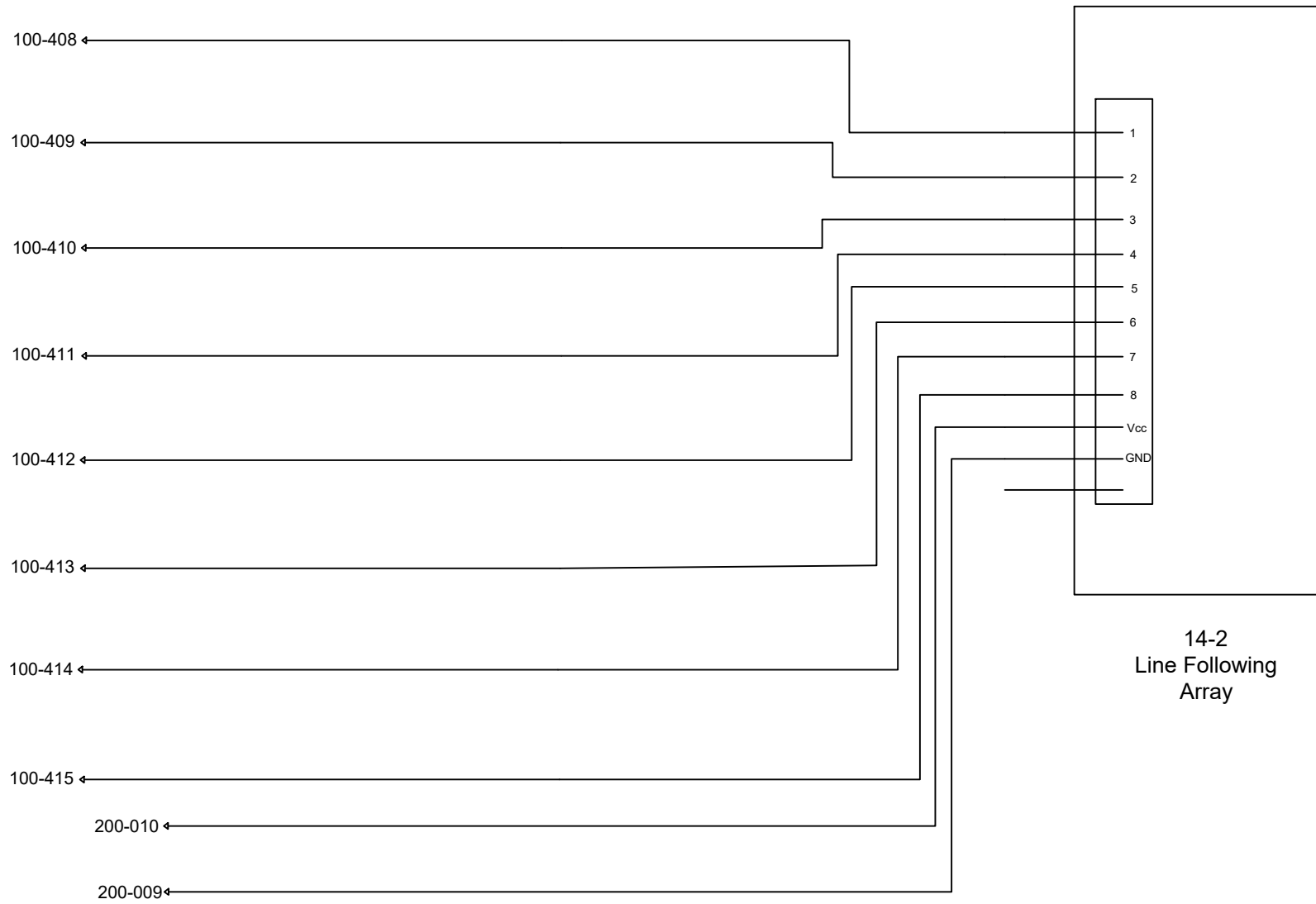
200-101

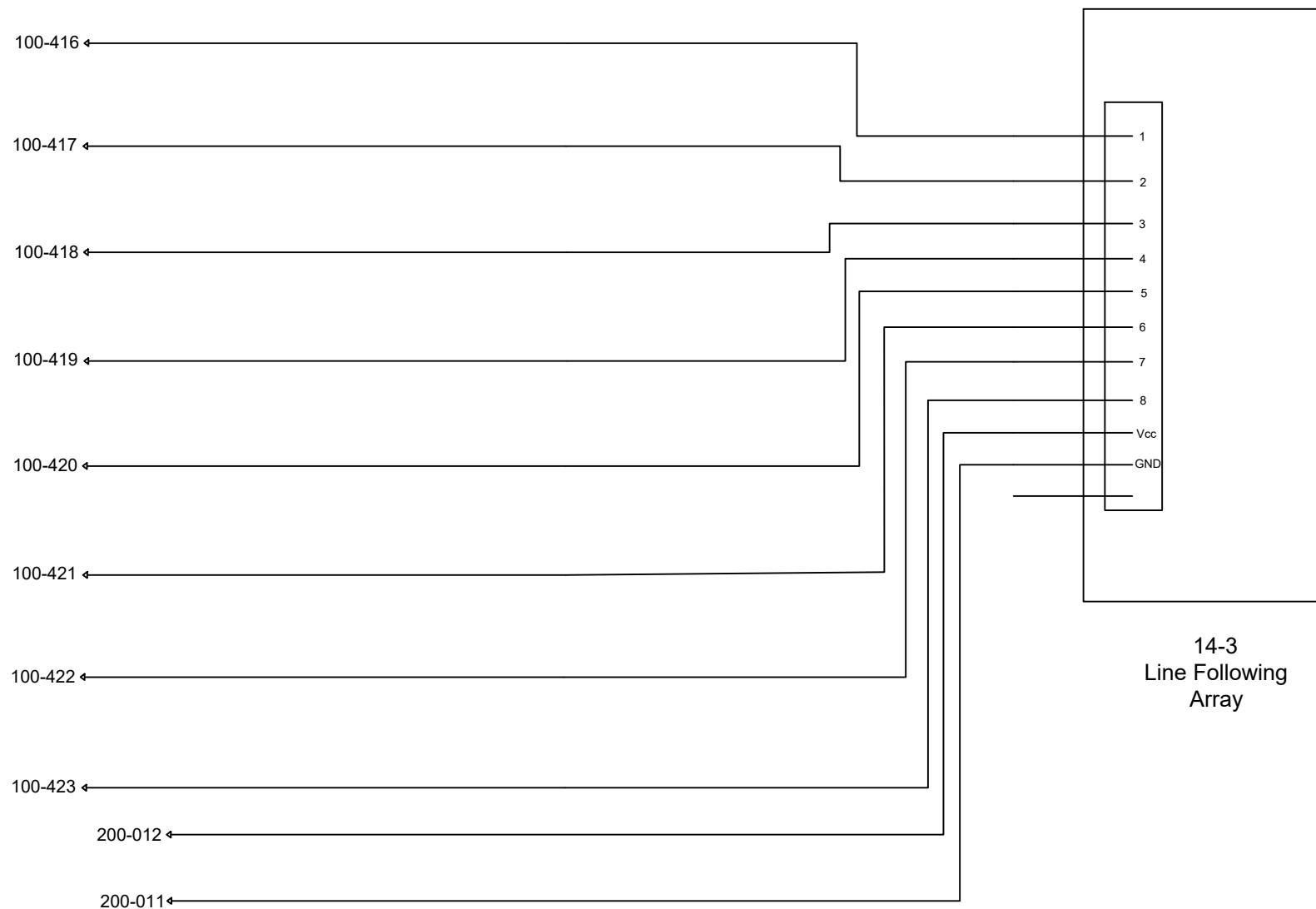
200-102

100-010



100-400





14-3
Line Following
Array

200-003

200-004

4-1
Raspberry Pi 4B
5.1 Volt

5-1
USB-C Cord

END

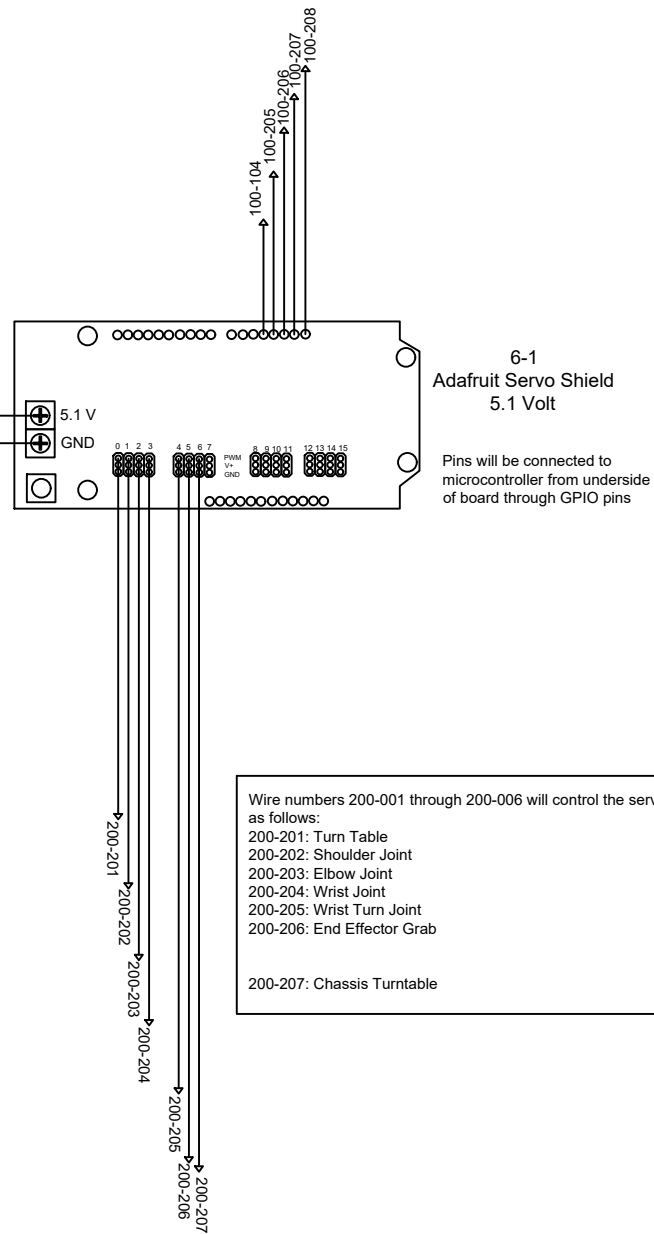
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200-004

200-101 200-102

END

END

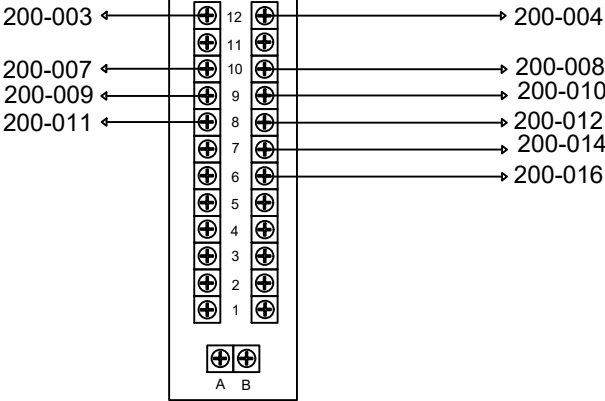




Wire numbers 200-001 through 200-006 will control the servo motors on the robotic arm as follows:
200-201: Turn Table
200-202: Shoulder Joint
200-203: Elbow Joint
200-204: Wrist Joint
200-205: Wrist Turn Joint
200-206: End Effector Grab
200-207: Chassis Turntable
200-208: Shooting Mechanism Reload

200-001 200-002

2-2
Power Bus
5.1 Volt



END

END

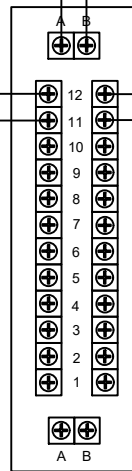
300-001

300-002

2-3
Power Bus
7 Volt

300-003
300-005

300-004
300-006



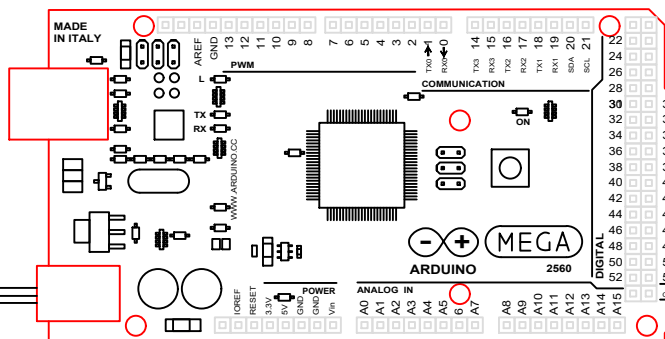
END

END

300-003 300-004

8-1
Arduino Mega
7 Volt

9-1
Arduino Power
Cord



END

END

300-004

