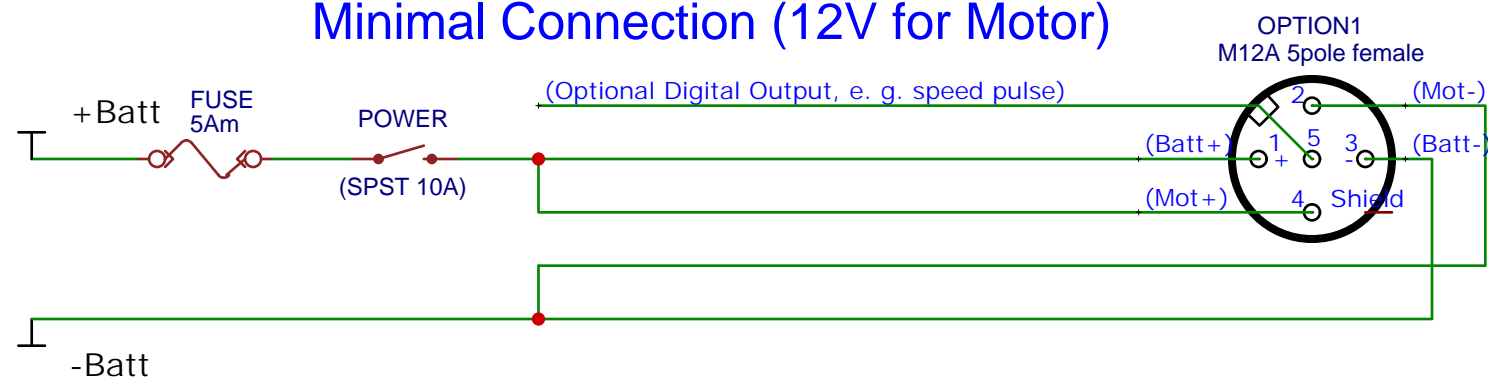
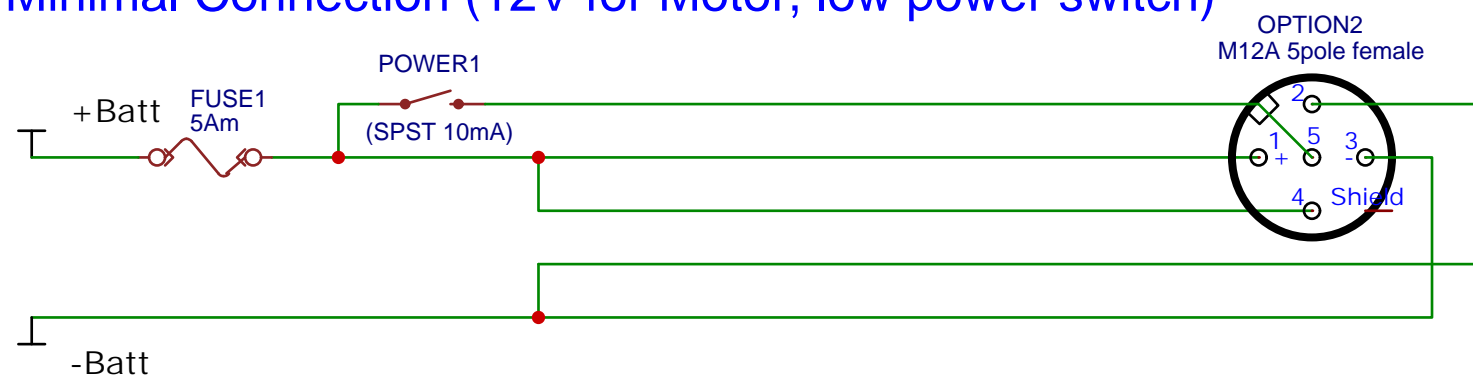


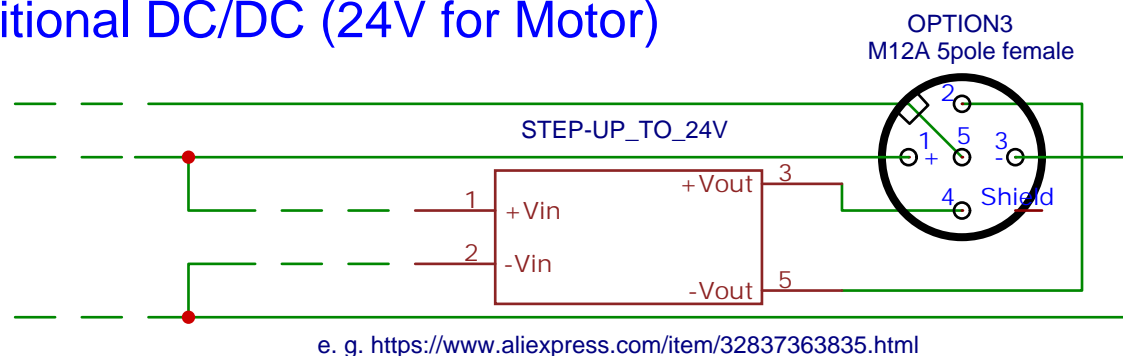
Minimal Connection (12V for Motor)



Minimal Connection (12V for Motor, low power switch)

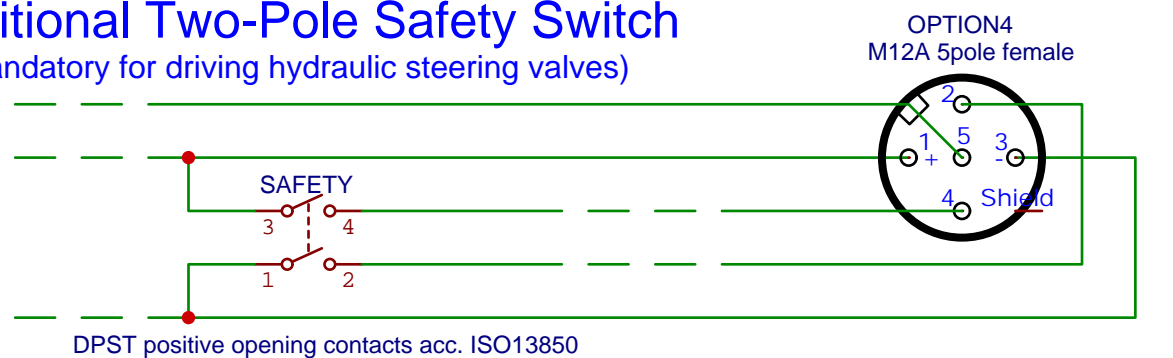


Additional DC/DC (24V for Motor)

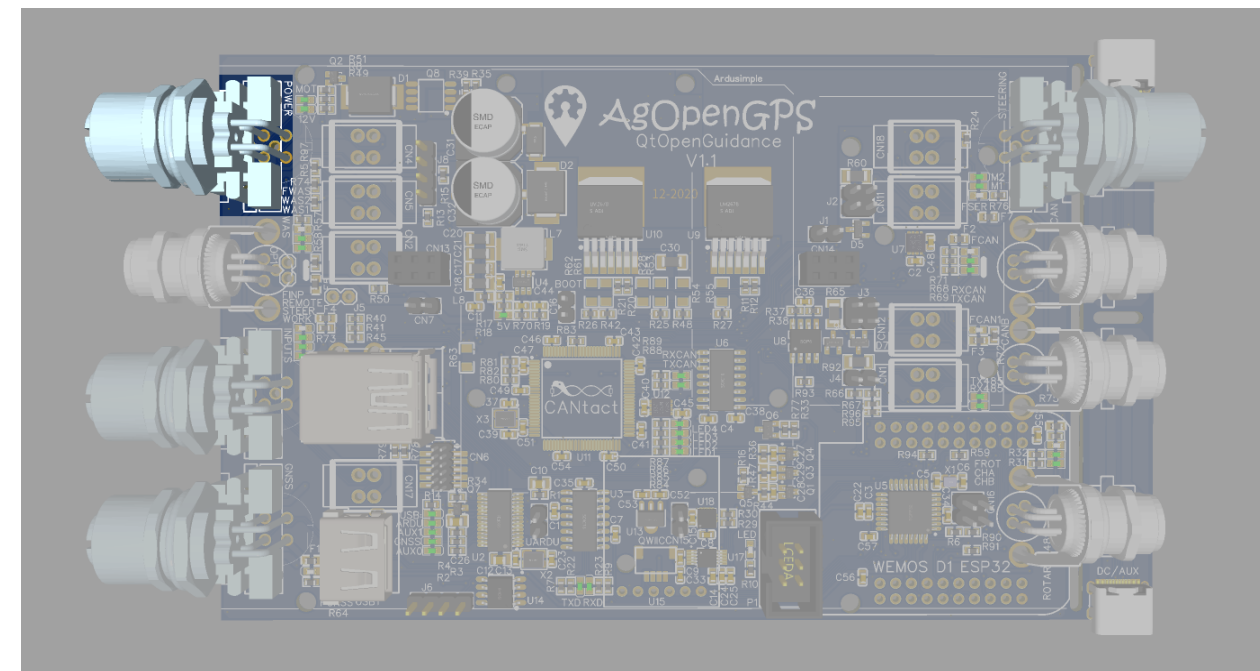


Additional Two-Pole Safety Switch

(Mandatory for driving hydraulic steering valves)



(Safety Advice: Protect cable against crushing)

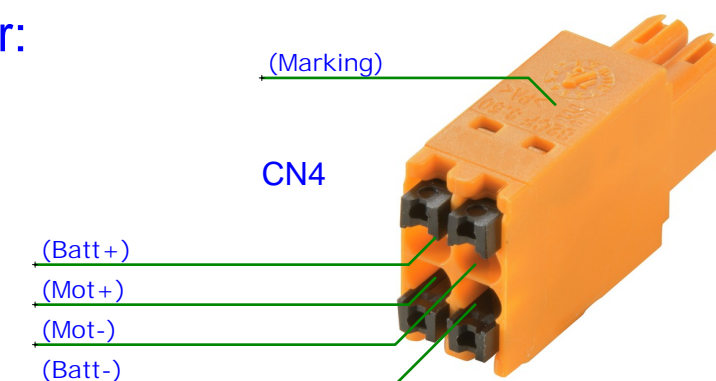


Cable M12-A female 4/5pole, e. g. weidmueller.com

SAIL-M12BG-5-1.5U (9457910150)

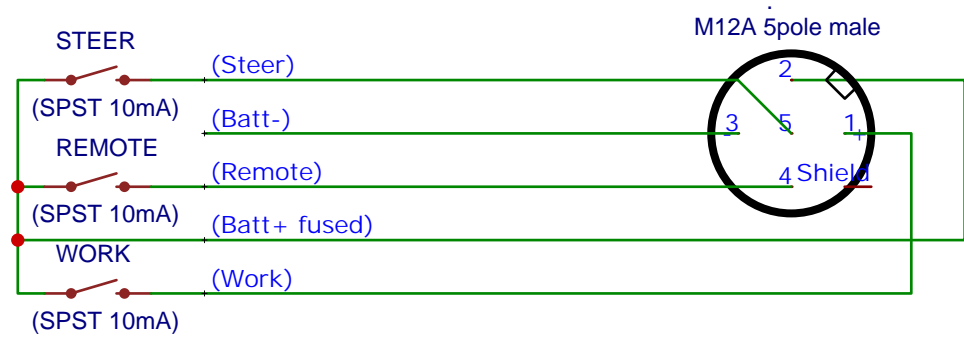
5 pole 1.5m unshielded = 0150cm

or:

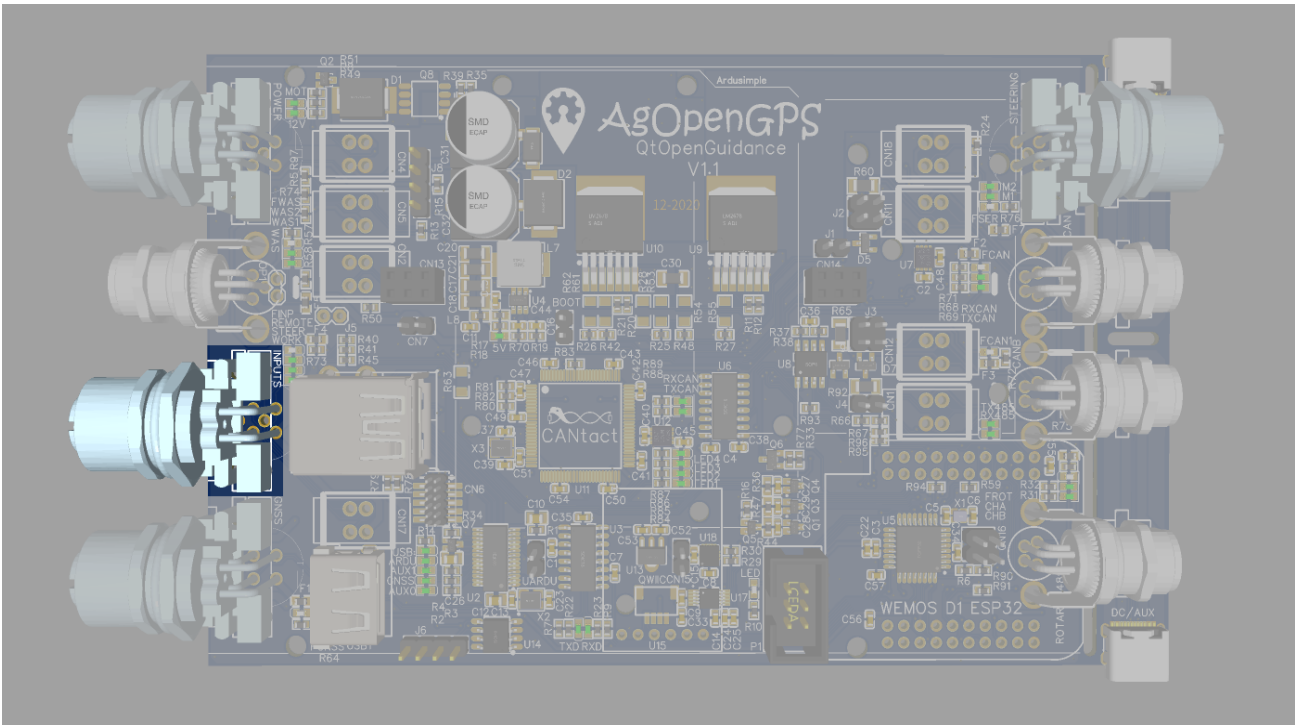


TITLE: Connecting Power Socket		REV: 1.0
EasyEDA	Company: agopengps.discourse.group	Sheet: 1/1
	Date: 2021-01-09	Drawn By: GoRoNb

Connection for Control Signals



Annotations:
- Steer signal will be automatically asserted when motor driver is powered if J7 is unfitted
- Remote and Work signals may be analog 0..15V if using the ESP32 option

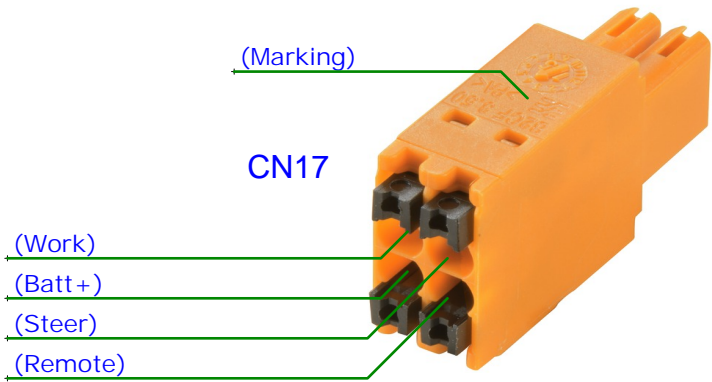


Cable M12-A male 4/5pole, e. g. weidmueller.com

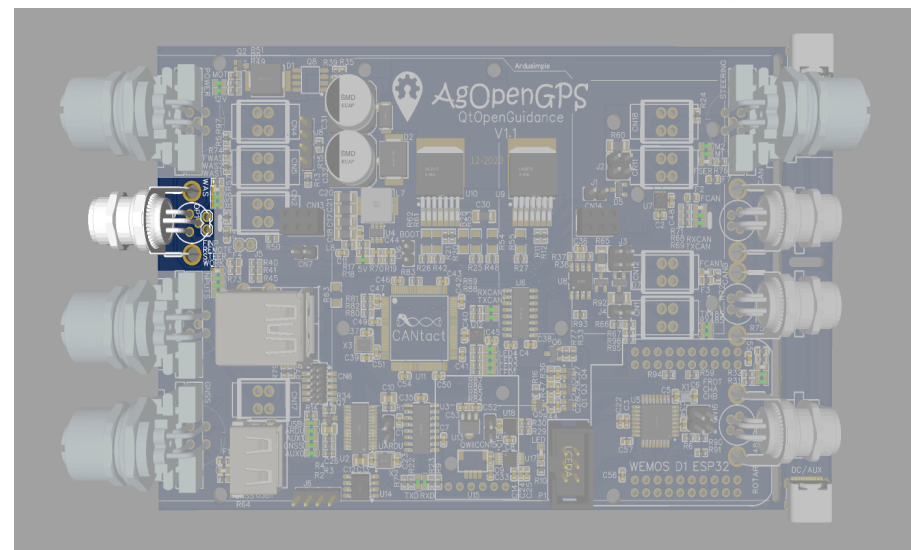
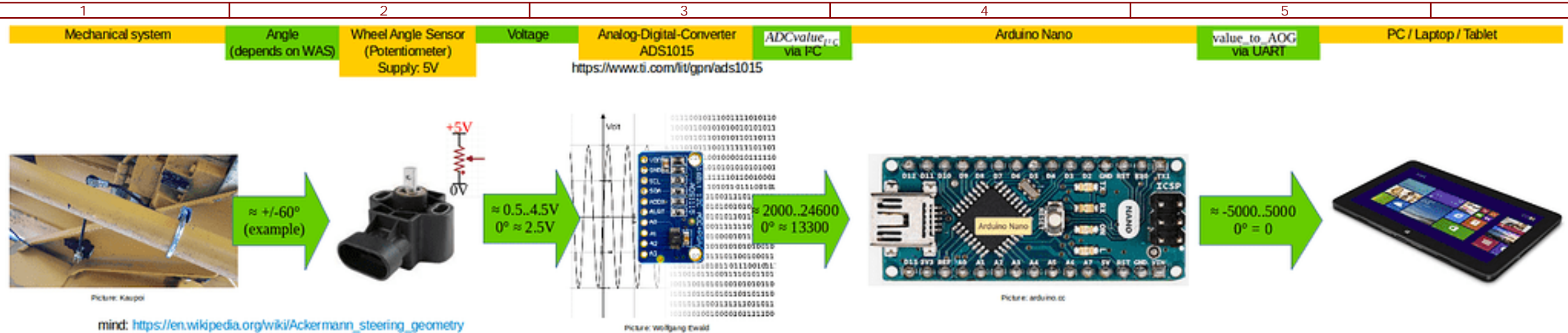
SAIL-M12G-5-1.5U (9457610150)

5 pole 1.5m unshielded = 0150cm

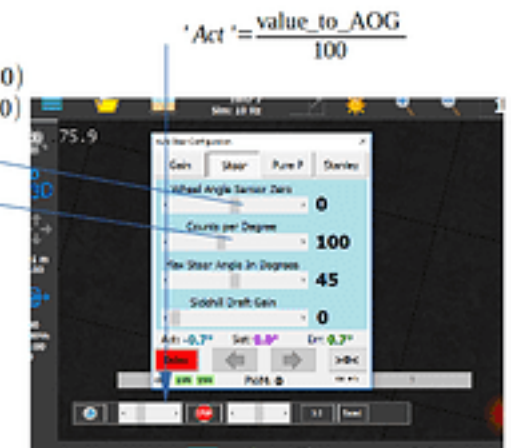
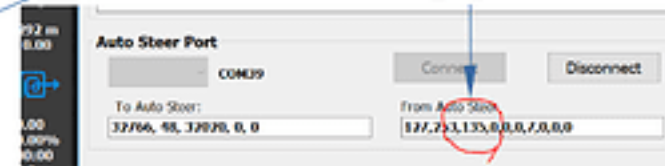
or:



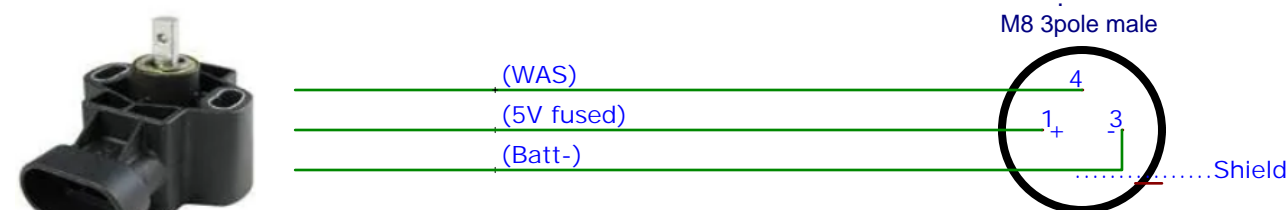
TITLE: Connecting Power Socket		REV: 1.0
EasyEDA	Company: agopengps.discourse.group	Sheet: 1/1
	Date: 2021-01-09	Drawn By: GoRoNb



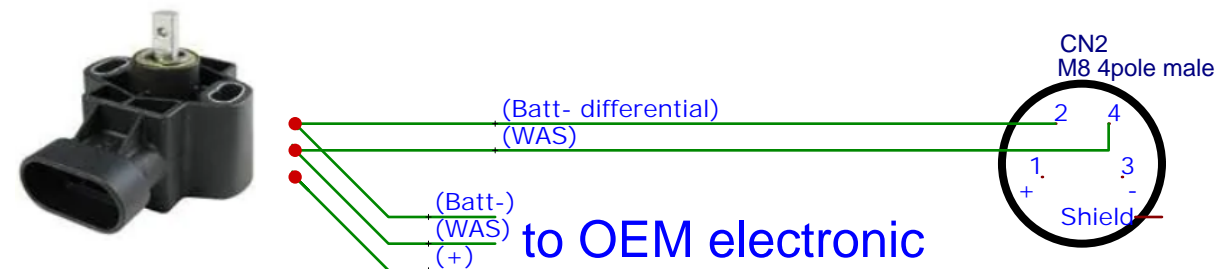
$$\text{value_to_AOG} = \begin{cases} \frac{25 \cdot (\text{ADCvalue}_{\text{VIC}} - 13280 - \text{'Wheel Angle Zero'})}{\text{'Counts per Degree'}} & (\text{if numerator} \geq 0) \\ \frac{25 \cdot \text{'Ackermann'} \cdot (\text{ADCvalue}_{\text{VIC}} - 13280 - \text{'Wheel Angle Zero'})}{\text{'Counts per Degree'}} & (\text{if numerator} < 0) \end{cases}$$



Connection to (new) WAS



Connection to OEM WAS



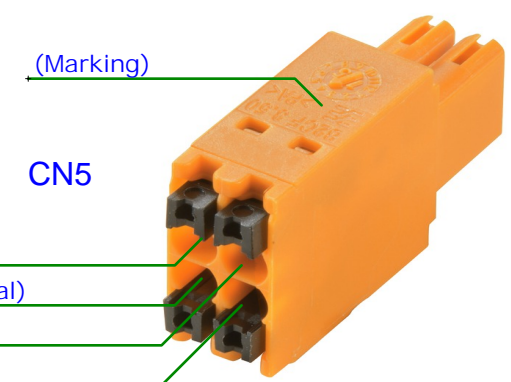
Cable M8 male 3/4pole, e. g. weidmueller.com

SAIL-M8G-3-3.0U (1824590300)

SAIL-M8G-4-3.0U (1906270300)

4 pole 3m unshielded = 0300cm

or:



TITLE: Connecting the Wheel Angle Sensor (WAS)		REV: 1.0
	Company: agopengps.discourse.group	Sheet: 1/1
	Date: 2021-01-09	Drawn By: GoRoNb

A

B

C

D

A

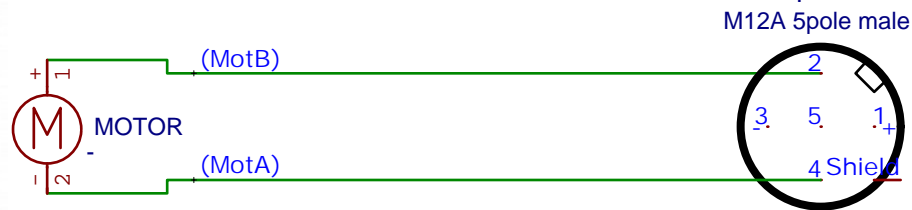
B

C

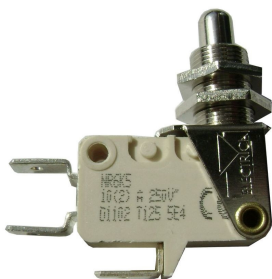
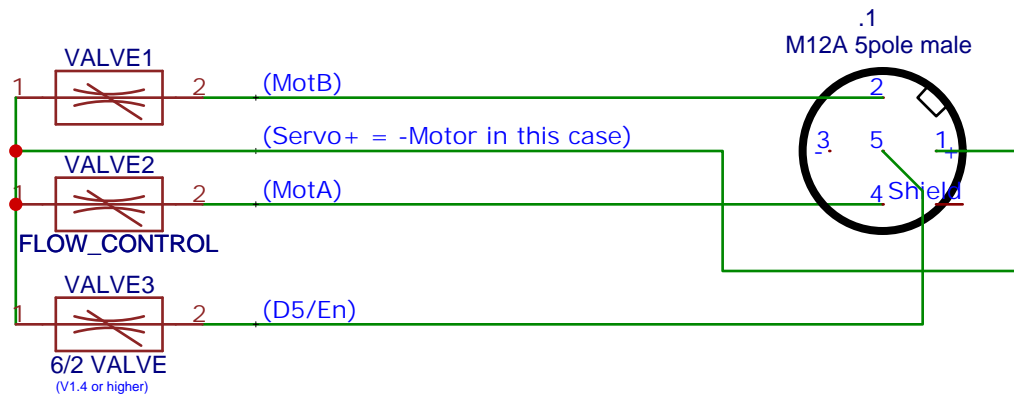
D



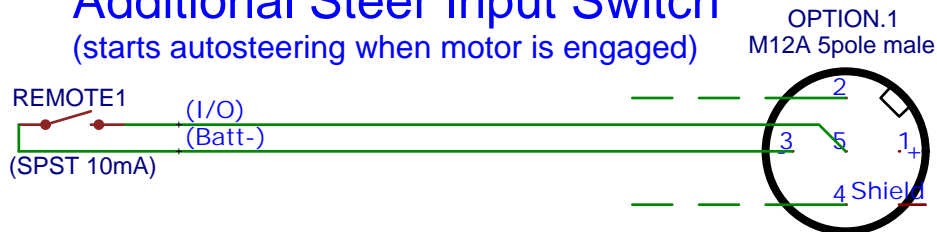
Connection to Steering Motor



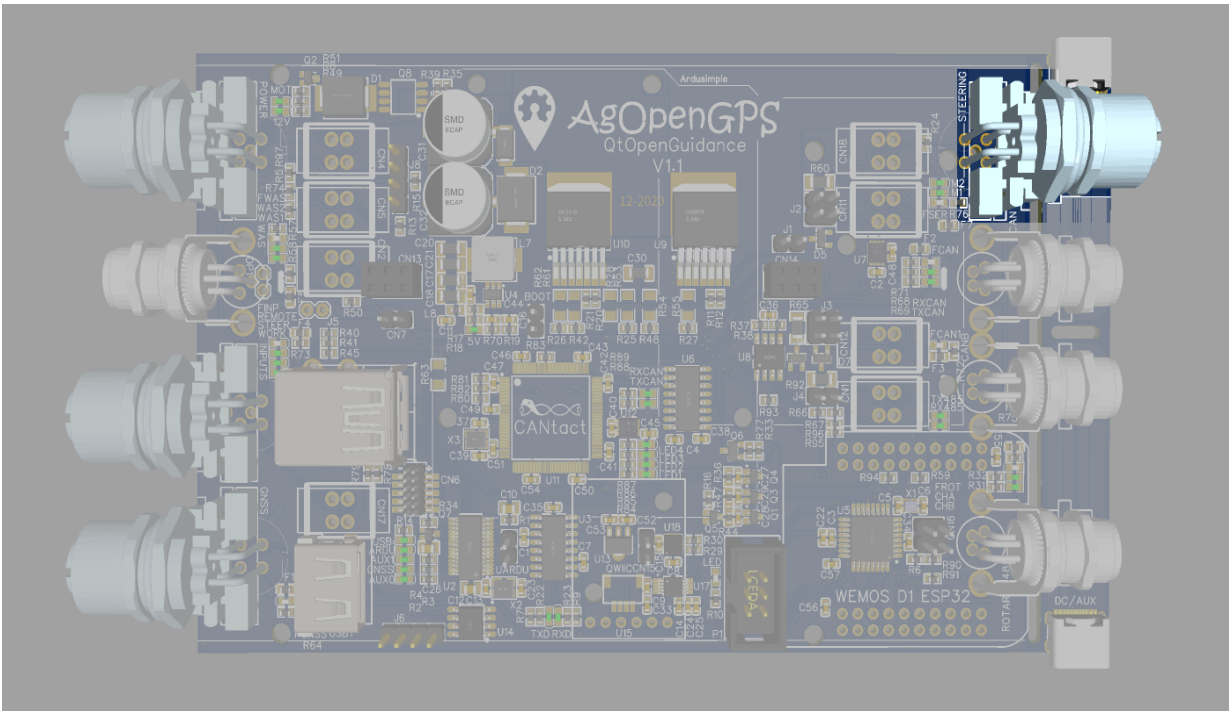
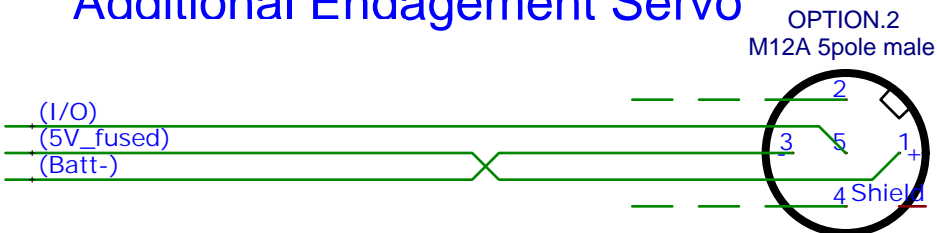
Connection to Hydraulic Valves



Additional Steer Input Switch
(starts autosteering when motor is engaged)



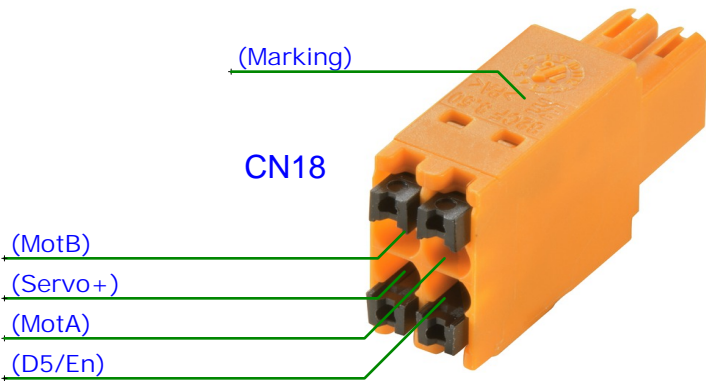
Additional Engagement Servo



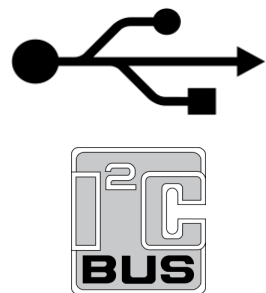
Cable M12-A male 4/5pole, e. g. weidmueller.com

SAIL-M12G-5-1.5U (9457610150)
5 pole 1.5m unshielded = 0150cm

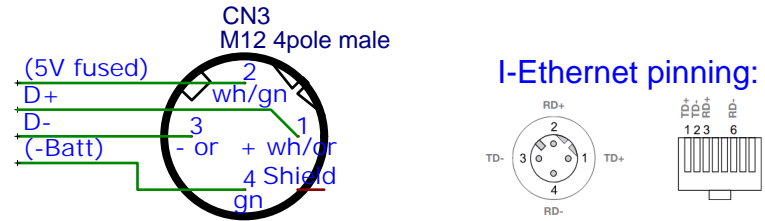
or:



TITLE: Connecting Motor or Valves		REV: 1.0
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	Date: 2021-01-09	Drawn By: GoRoNb

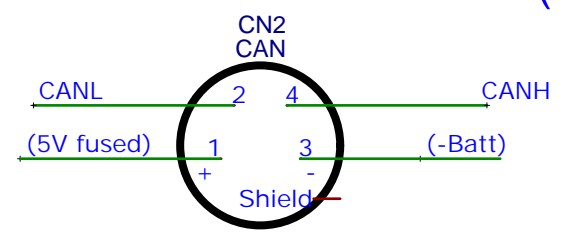


USB* or I²C**
(*) e. g. to Rooftop Unit
(**) remove R43 + R46 and connect I²C to CN3

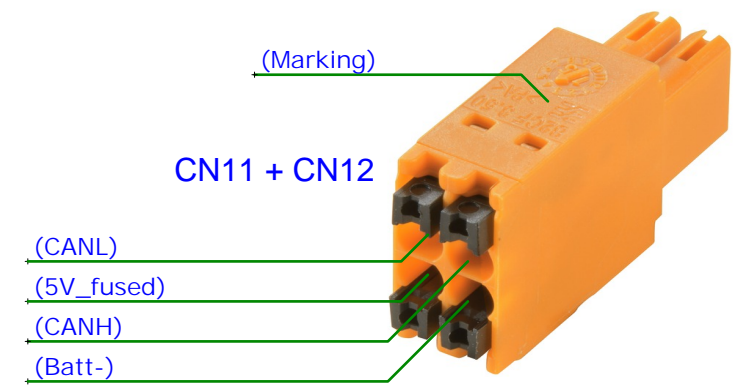


Cable M12D male-male 4pole, e. g. weidmueller.com
IE-C5DD4UG0030MCSMCS-E (1025950030)
4 pole 3m = 0030dm

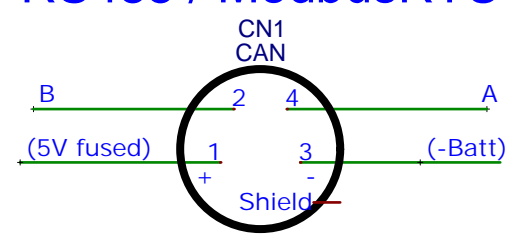
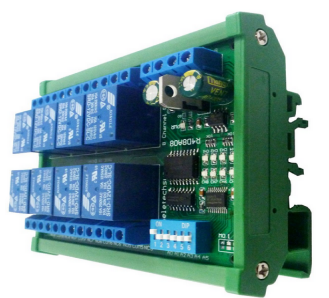
Controller Area Network (CAN)



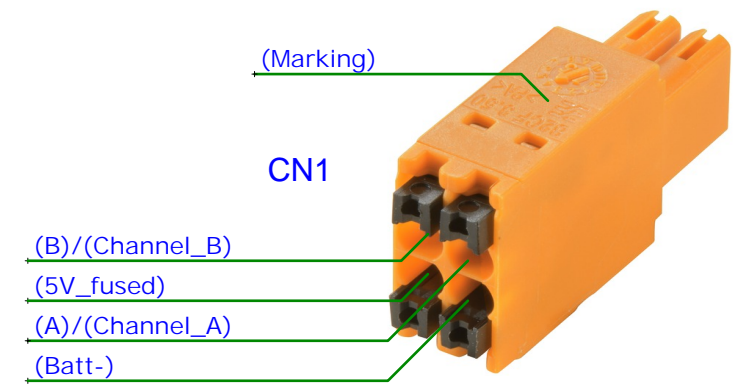
Cable M8 male 4pole, e. g. weidmueller.com
SAIL-M8G-4-3.0U (1906270300)
4 pole 3m unshielded = 0300cm



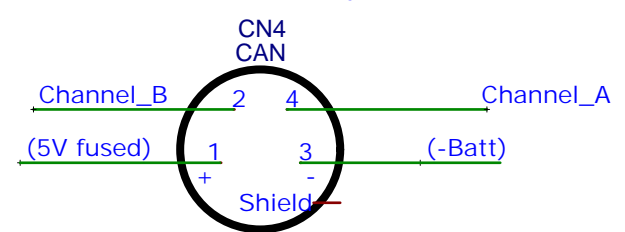
RS485 / ModbusRTU



or:



Alternative: Rotary Encoder



TITLE: Bus Connections		REV: 1.0
EasyEDA	Company: agopengps.discourse.group	Sheet: 1/1
	Date: 2021-01-09	Drawn By: GoRoNb