

Battery Connector  
AURELIO TECH - B00QI6S6B5

DC/DC Converter  
(36-72V to 5V @1000mA)

NOTES:  
Button uses 3.3V source while motors use 5V source  
Wire colors on motor side are best guess based on photos  
You may want to use a 9 or 10 pin connector for Motor B to prevent them from being plugged incorrectly  
JST SM connectors picked for panel mount, swap with any connector available  
All wire protrude 12" from box

Conn\_01x07  
GND  
+5V  
D0  
D1  
D2  
D3  
VT  
J?

RF Reciever  
315Mhz Momentary  
<https://www.adafruit.com/product/1596>

J?  
1  
2  
MOTOR B POWER  
Conn\_01x02

J?  
1  
2  
MOTOR A POWER  
Conn\_01x02

1 VIN 24 3V3  
2 GND 23 RST  
3 TX 22 VBAT  
4 RX 21  
5 WKP D7  
6 DAC D6  
7 A5 D5  
8 A4 D4  
9 A3 D3  
10 A2 D2  
11 A1 D1  
12 A0 D0

U?

PARTICLE\_PHOTON

Level Translator  
BOB-12009  
<https://www.sparkfun.com/products/12009>

1 LV4 HV4  
2 LV3 HV3  
3 GND GND  
4 LV+ HV+  
5 LV2 HV2  
6 LV1 HV1

1 GREEN  
2 BLACK  
3 WHITE  
4 BLUE  
5 RED  
6 YELLOW  
7 BROWN  
8 ORANGE

To Motor B

18" Long  
5" Remove Sheath

Level Translator  
BOB-12009  
<https://www.sparkfun.com/products/12009>

1 LV4 HV4  
2 LV3 HV3  
3 GND GND  
4 LV+ HV+  
5 LV2 HV2  
6 LV1 HV1

1 GREEN  
2 BLACK  
3 WHITE  
4 BLUE  
5 RED  
6 YELLOW  
7 BROWN  
8 ORANGE

To Motor A  
"RED"  
Closest to Switch  
Same side as +VIN  
(RED)

20" Long  
7" Remove Sheath



See Release V0.0.3 for additional files  
<https://github.com/bveenema/MixController/releases>

**Veenema Design Works**

Sheet: /  
File: MixController.sch

**Title: Mix Controller**

Size: A4 Date: 2018-07-18

KiCad E.D.A. kicad 4.0.7

**Rev: V0.0.3**

Id: 1/1