

Note: Cut VIN-VUSB trace on bottom of board

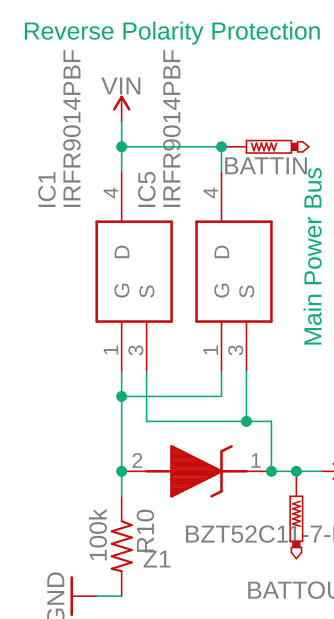
[https://www.pjrc.com/store/ic\\_mkl02\\_t4.htm](https://www.pjrc.com/store/ic_mkl02_t4.htm)



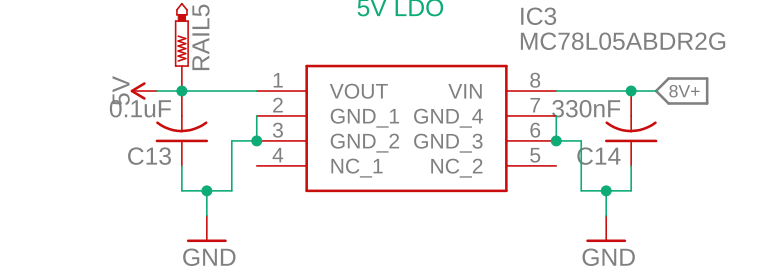
```

2 - R_LED_1
3 - G_LED_1
4 - B_LED_1
5 - R_LED_2
6 - G_LED_2
7 - B_LED_2
8 - PWM_1
9 - PWM_2
22 - CAN_TX1
23 - CAN_RX1

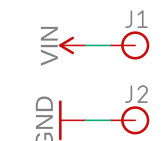
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unconn:  
RX 1

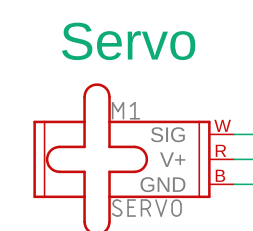
## Main Power Switch



## I2C Sensor Outputs

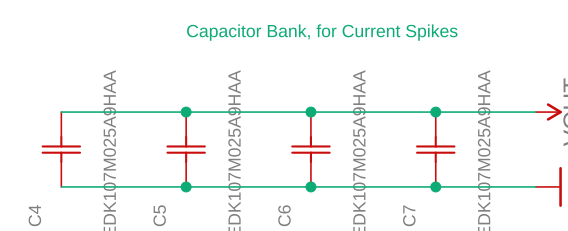


## External VREG



The image displays three circuit diagrams, each showing a motor connected to a motor driver (U4, U1, and U5) and a 22uF 1206YD228MAT2A capacitor. The diagrams are arranged in a 2x2 grid, with the bottom-right cell being empty.

- Top Left Diagram (U4):** A motor is connected to the VREF, EPAD, and OUT pins of U4 (BD6222HFP-TR). The GND pin of U4 is connected to a 22uF 1206YD228MAT2A capacitor, which is also connected to GND. A 22uF 1206YD228MAT2A capacitor is also connected to the VREF pin of U4.
- Top Right Diagram (U1):** A motor is connected to the VREF, EPAD, and OUT pins of U1 (BD6222HFP-TR). The GND pin of U1 is connected to a 22uF 1206YD228MAT2A capacitor, which is also connected to GND. A 22uF 1206YD228MAT2A capacitor is also connected to the VREF pin of U1.
- Bottom Left Diagram (U5):** A motor is connected to the VREF, EPAD, and OUT pins of U5 (BD6222HFP-TR). The GND pin of U5 is connected to a 22uF 1206YD228MAT2A capacitor, which is also connected to GND. A 22uF 1206YD228MAT2A capacitor is also connected to the VREF pin of U5.
- Bottom Right Diagram (U3):** A motor is connected to the VREF, EPAD, and OUT pins of U3 (BD6222HFP-TR). The GND pin of U3 is connected to a 22uF 1206YD228MAT2A capacitor, which is also connected to GND. A 22uF 1206YD228MAT2A capacitor is also connected to the VREF pin of U3.



### Capacitor Bank, for Current Spikes