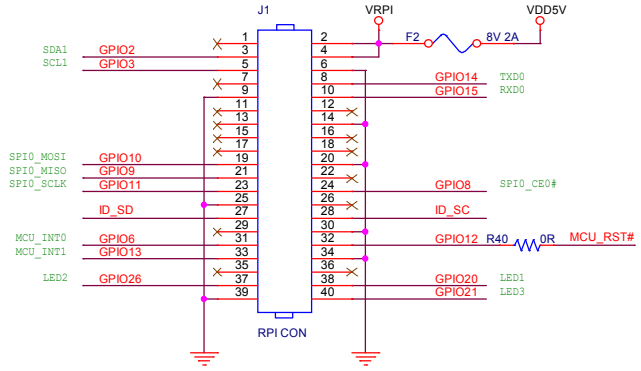
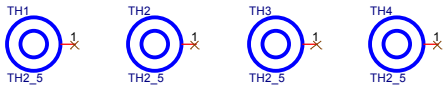
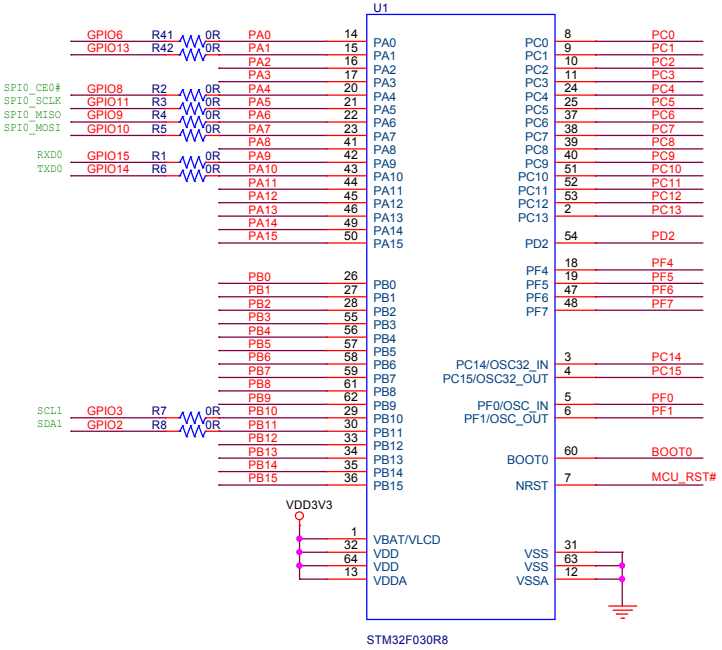
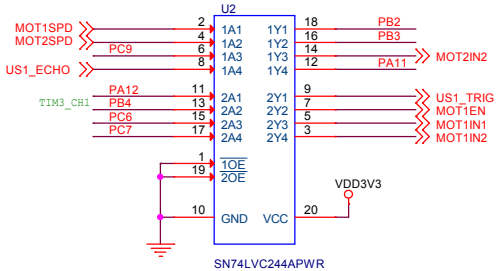
NC unused GPIO pins and the 3.3V power pins.
RPi only needs 5V external supply.

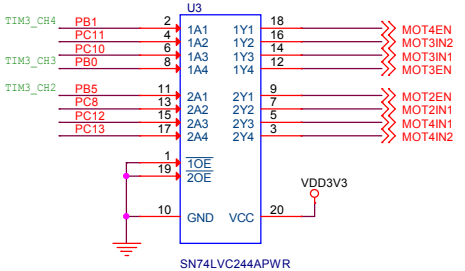


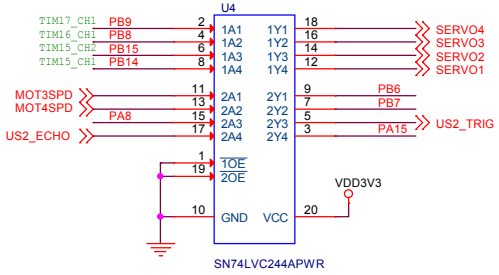
Pinout can be found on this website: pi.gadgetoid.com/pinout



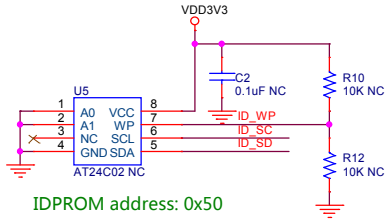




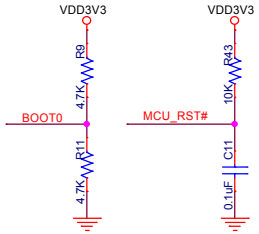


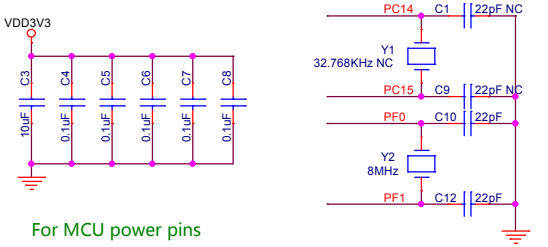


These 244s work as IO buffers for the MCU
MCU -> MOT/SRV: driver & isolator
MOT/US -> MCU: 5V to 3.3V converter

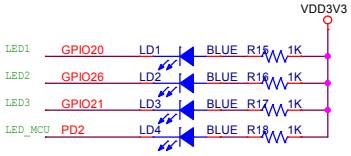


IDPROM address: 0x50

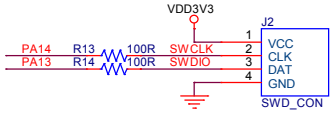




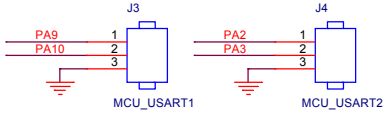
For MCU power pins



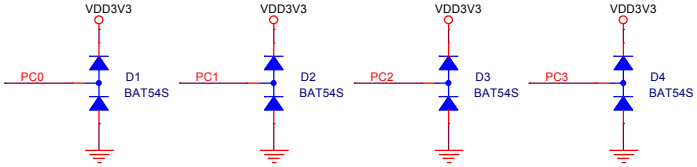
User programmable LEDs



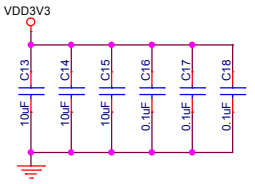
MCU SWD interface



MCU USART interfaces



Protect the analog input channels

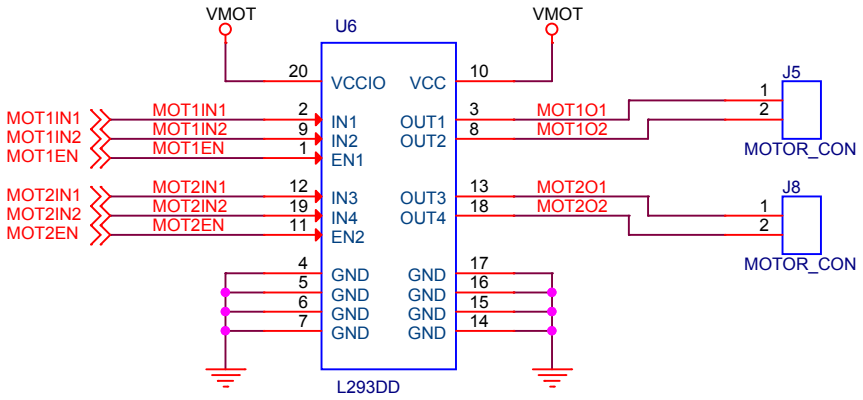


For 244 power pins

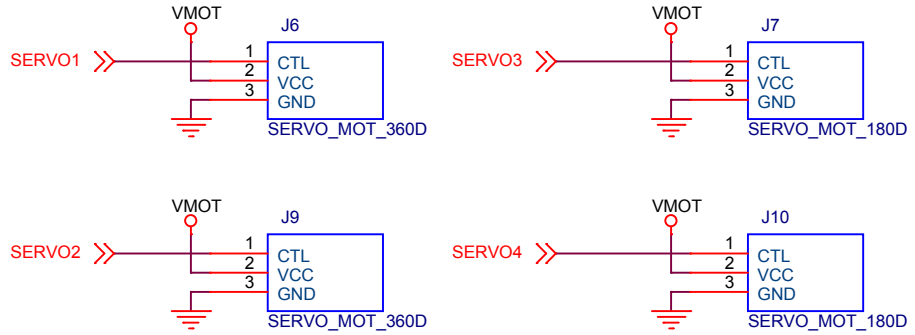
Title	*MOT HAT for Raspberry Pi*	
Size A3	Document Number MCU	Rev R0A
Date: Wednesday, August 05, 2015	Sheet 1 of 3	

[DC Geared Motor]
Voltage: 3~6V
Current: 100~120mA
Speed: 100~240rpm

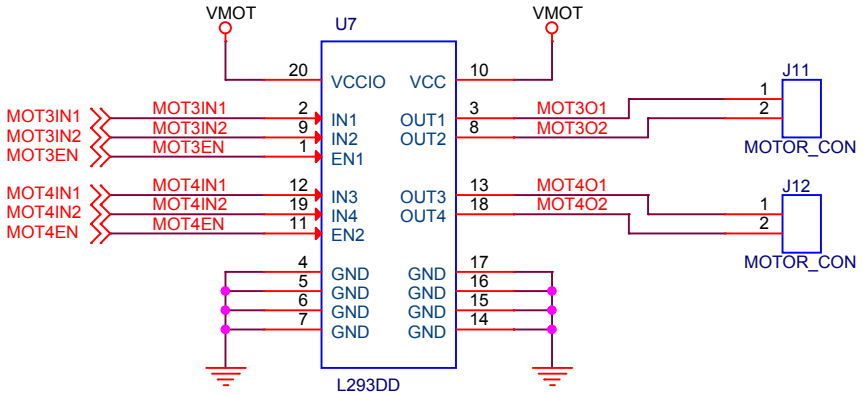
[MG995 Servo]
Torque: 13KG/cm
Voltage: 3~7V
Current: ~100mA

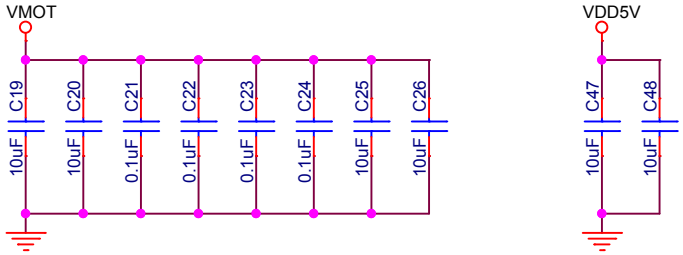


MOTxIN1 & IN2: direction control (GPIO)
MOTxEN: speed control (PWM)

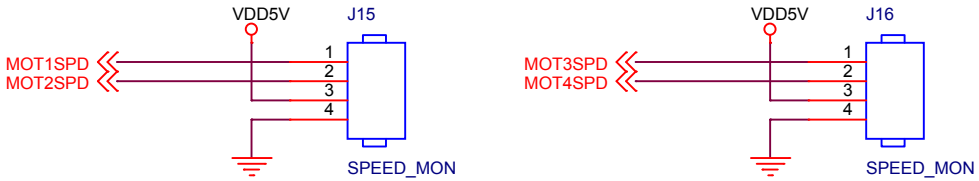


4-channel servos for robotic arm



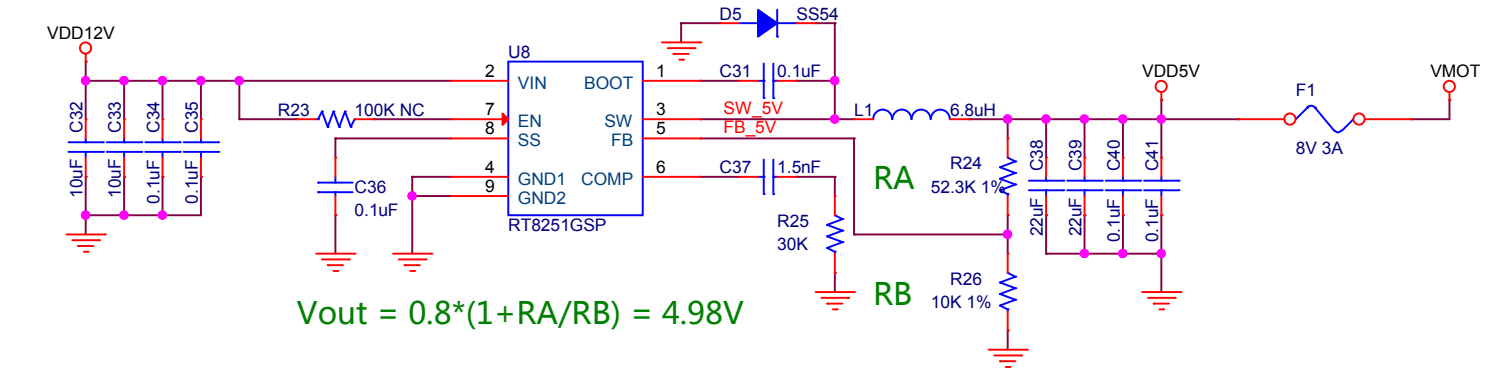


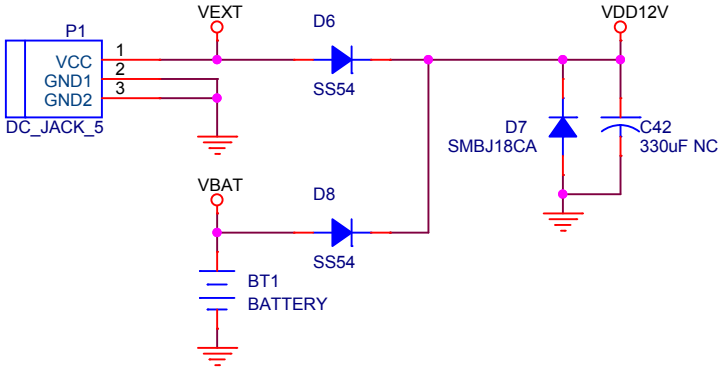
Ultrasound sensor module interface

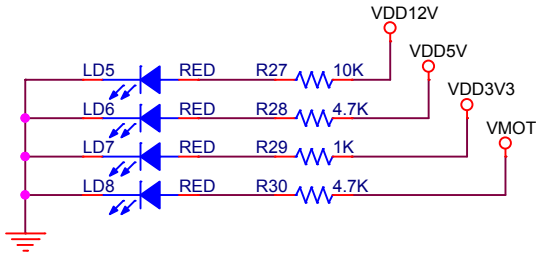


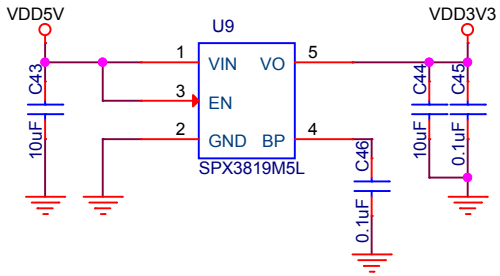
IR motor velometer interface

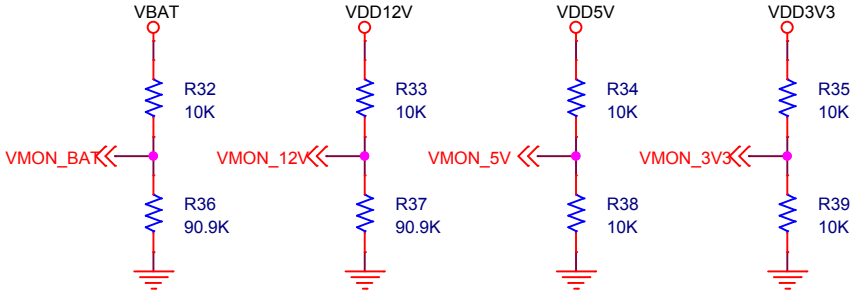
Title	*MOT HAT for Raspberry Pi*	
Size A4	Document Number Motors	Rev R0A
Date: Wednesday, August 05, 2015	Sheet 2 of 3	











Title	*MOT HAT for Raspberry Pi*	
Size A4	Document Number Power	Rev R0A
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