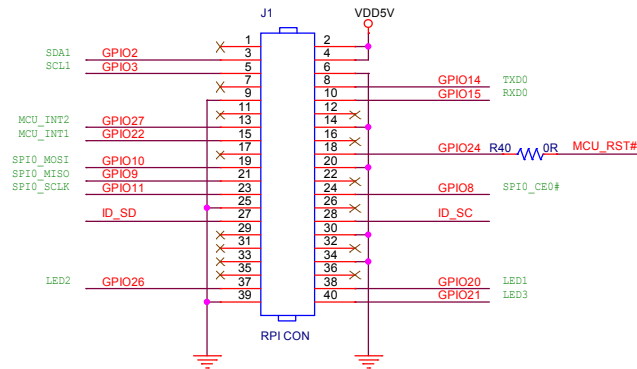
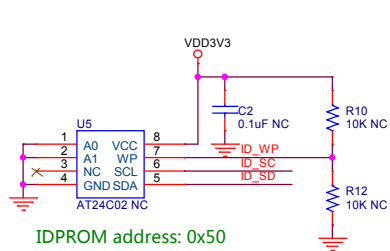
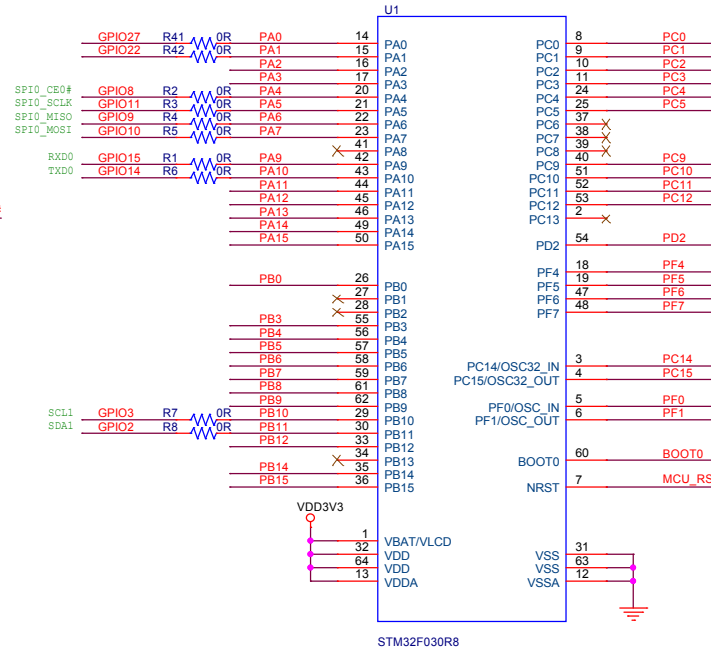
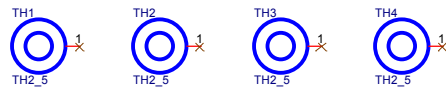


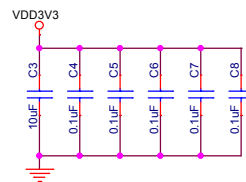
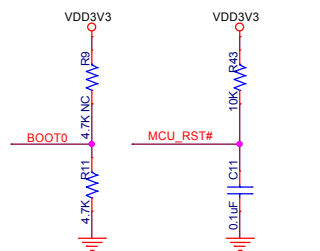
NC unused GPIO pins and the 3.3V power pins.
RPi only needs 5V external supply.



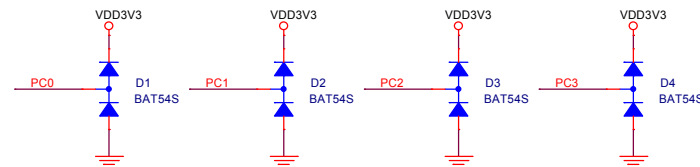
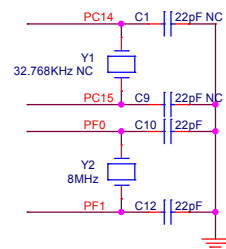
Pinout can be found on this website: pi.gadgetoid.com/pinout



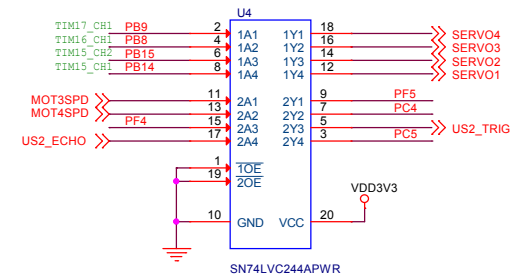
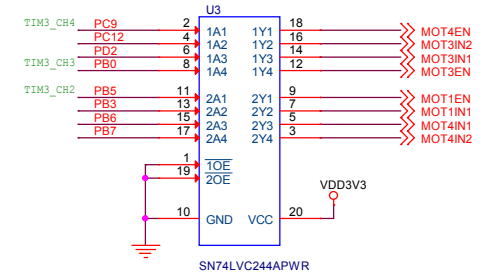
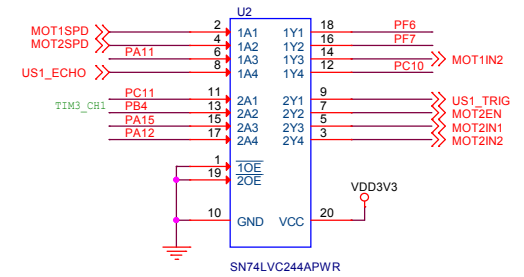
IDROM address: 0x50



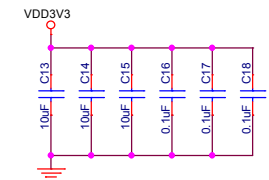
For MCU power pins



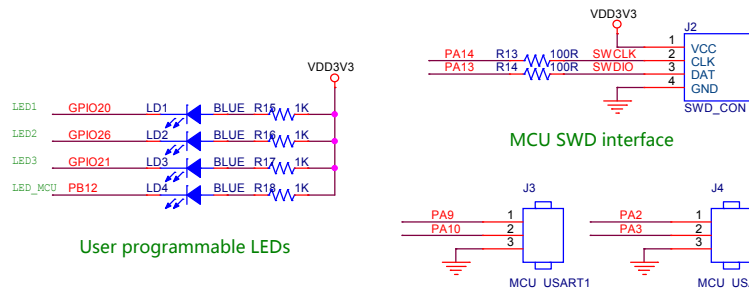
Protect the analog input channels



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



For 244 power pins



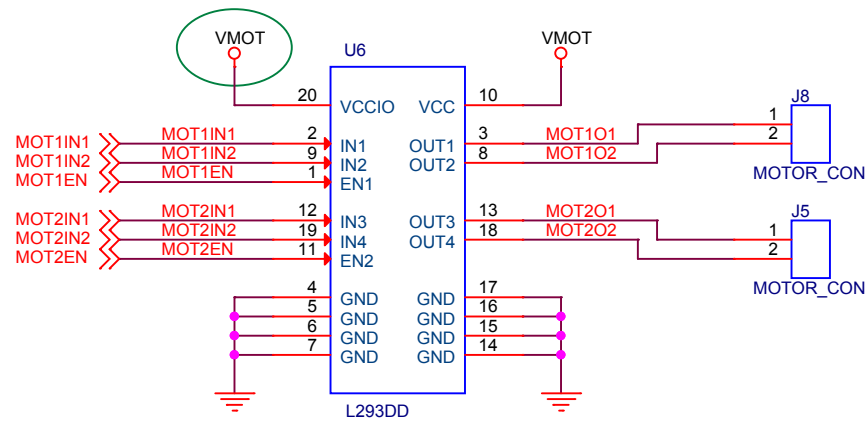
MCU SMD interface

User programmable LEDs

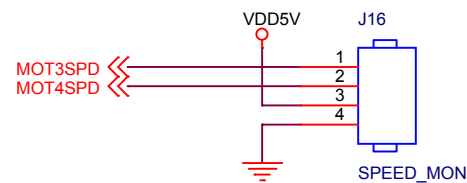
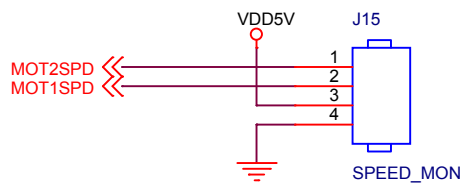
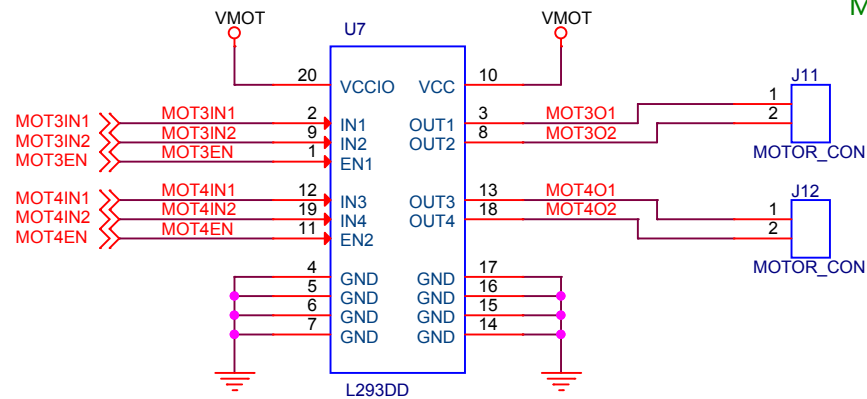
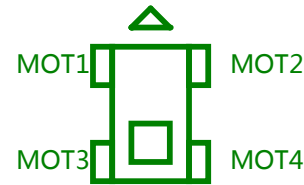
MCU USART interfaces

Title			MOT HAT for Raspberry Pi		
Size	A3	Document Number	MCU		
Date:	Saturday, August 08, 2015	Sheet	1	of	3

Use VMOT instead of VDD5V as the VCCIO:
When the L293 is breakdown and short, this
will keep the power short only in VMOT.



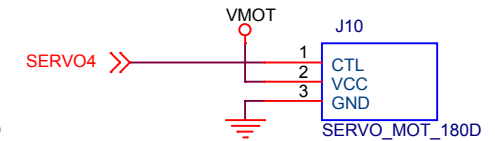
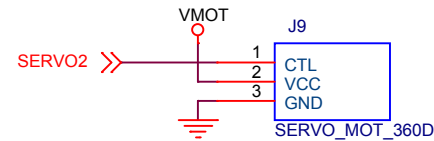
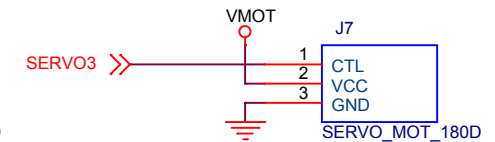
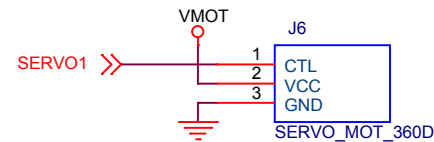
MOTxIN1 & IN2: direction control (GPIO)
MOTxEN: speed control (PWM)



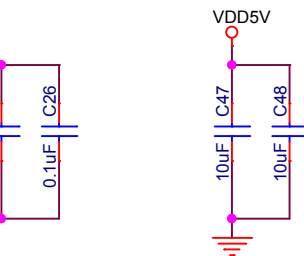
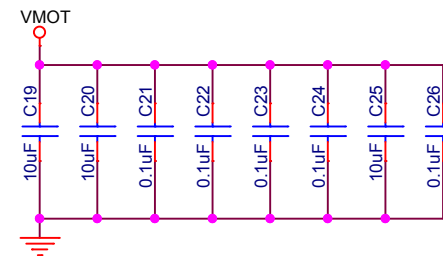
IR motor velometer interface

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

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

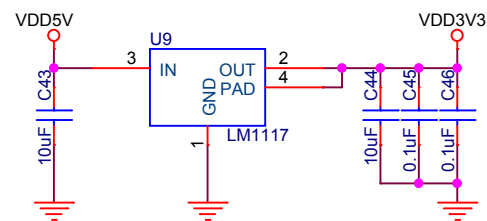
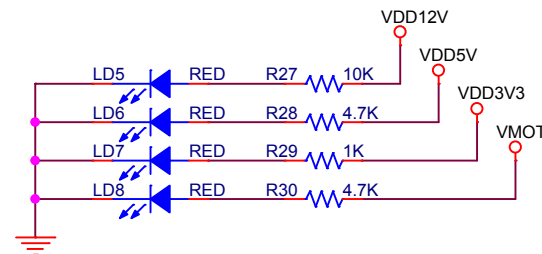
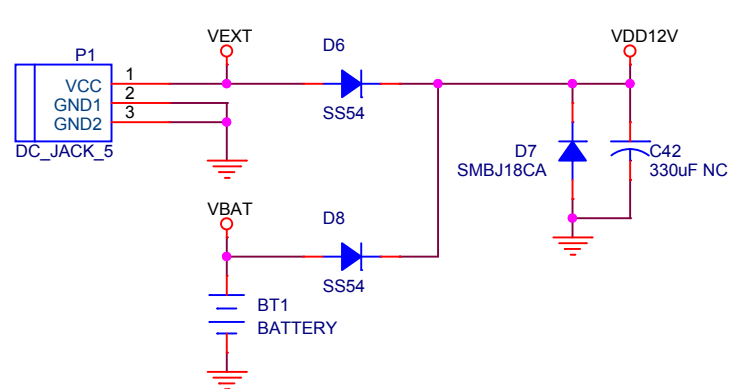
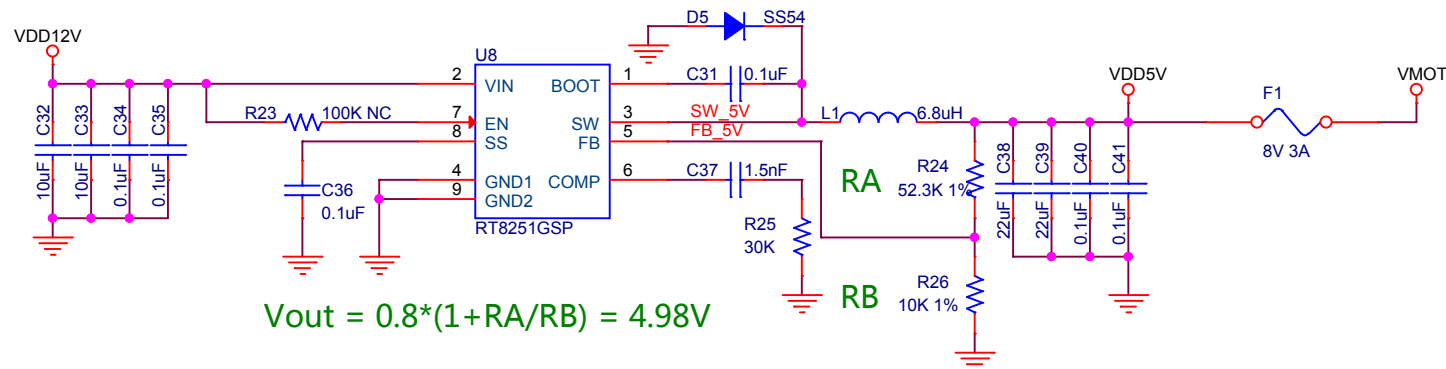


4-channel servos for robotic arm

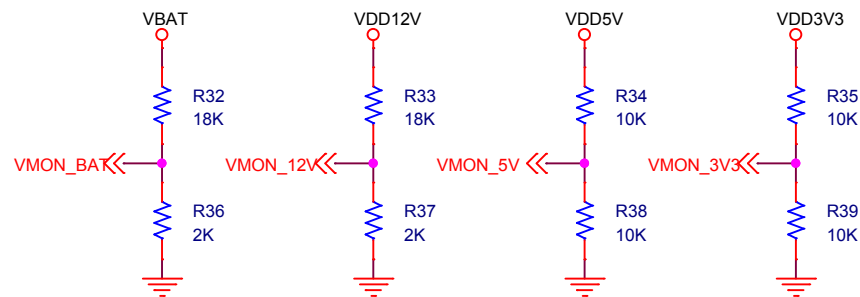


Ultrasound sensor module interface

Title			
MOT HAT for Raspberry Pi			
Size	Document Number		Rev
A4	Motors		R0A
Date:	Saturday, August 08, 2015		Sheet
2	2		of 3



For MCU power, not RPi



Power voltage monitor

Title			<i>MOT HAT for Raspberry Pi</i>		
Size	Document Number				Rev
A4	Power				R0A
Date:	Saturday, August 08, 2015		Sheet	3	of 3