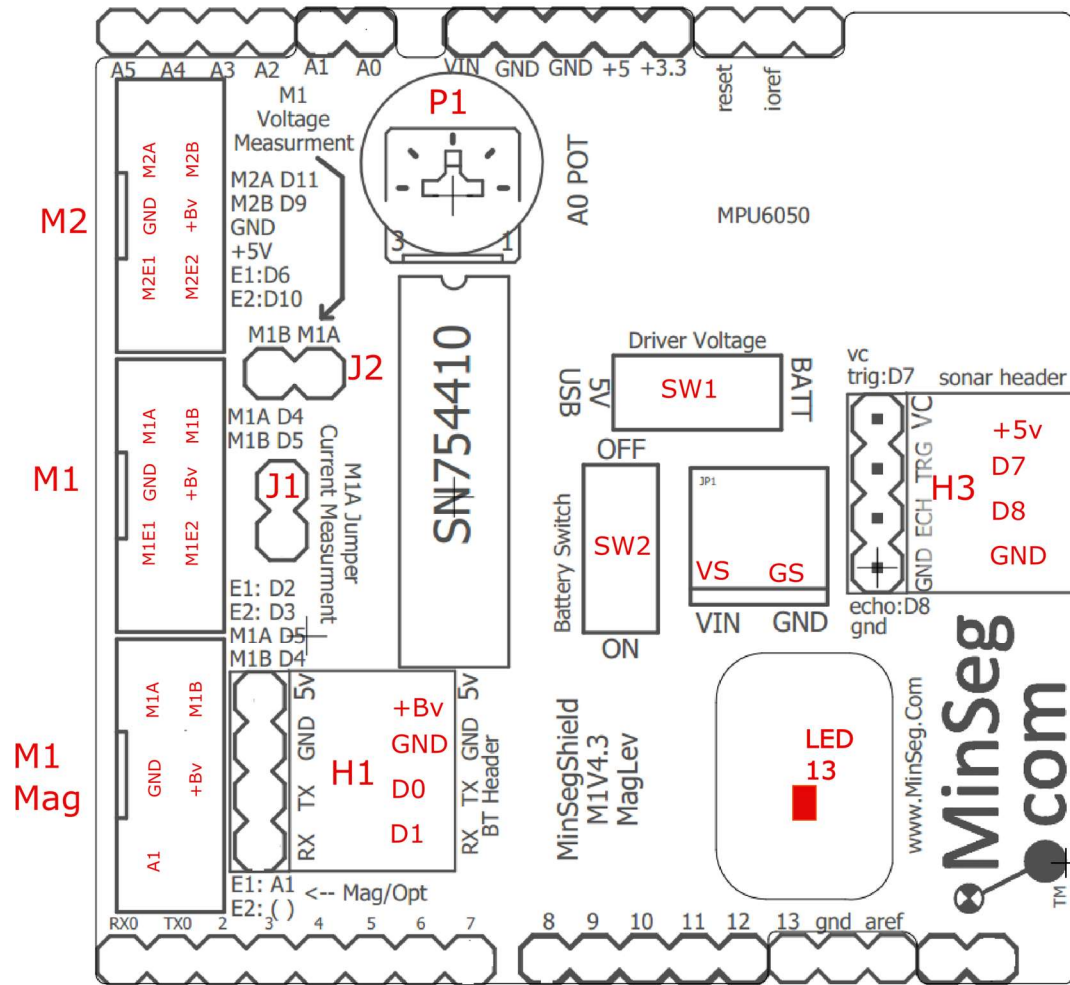


MinSegShield M1V4.3 Pinout



*** Please Read Disclaimer Below ***

Pin	Description	PIN	Description
+BV	Board Voltage (5v)	M1A	Amplified signal from D5
GND	Ground	M1B	Amplified signal from D4
VS	External Power connected to SW2	M1E1	Connected to D2, used as interrupt for encoder
GS	External Power Ground	M1E2	Connected to D3, used as interrupt for encoder
SW1	Supplies VS or regulated 5volts to Driver	M2A	Amplified signal from D11 through J3
SW2	Supplies VS to Arduino Vin (powers board from external source)	M2B	Amplified signal from D9
P1	Potentiometer connected to A0	M2E1	Selectable to D6 (J5) or D0 (J6). Allows use of uno PCINT
A1	Analog from optical sensor or Hall effect sensor of Mag Lev to A1	M2E2	Connected to D10 through J4, used as interrupt for encoder

Headers	Description	Jumpers	Description

M2	NXT motor	J2	M1A1 to Amplifier (D4) - allows current measurement
M1	NXT motor	J1	M2A to Amplifier (D11) allows current measurement
M1 Mag	Header for Mag Leve experiment with Hall effect sensor of MinSeg optical sensor	J3	M1A, M1B allows easy voltage measurement between these pins for Motor on M1
H1	Bluetooth communication header - to send and receive data		
H3	Ultrasonic Header - for plug in ultrasonic HCSR04 sensor		
MPU6050	This location will have the MPU6050/ MPU9250 accel/gyro, HMC58833L compass, or MS5611/MMP280 Baro depending on your board options		

Notes:	

PCINT for Mega Uno		
PIN	Uno	Mega
D0	PD0- PCINT16	PE0 - PCINT8
D6	PD6 - PCINT22	PH3 (no PCINT)
D10	PB2 - PCINT2	PB4 - PCINT4
* see uno & mega pinmapping to determine application		

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