

<p>SHIELD: I2C LCD, I2C EEPROM, and I2C Expander</p> <p>Uses pins: 0,2 (can share them with other I2C devices)</p> <p>Works simultaneously with:</p> <p>One each: LCD, EEPROM AND/OR Multiple: I2C Expanders AND/OR Any one of these: Relay, IR, MOSFET (or two of one type) AND/OR One more MOSFET AND/OR USB Communication</p> <p>OR</p> <p>One each: LCD, EEPROM AND/OR Multiple: I2C Expanders AND/OR AND/OR Motor Shield</p> <p>OR</p> <p>One each: LCD, EEPROM AND/OR Multiple: I2C Expanders AND/OR Any two of these: Relay, IR, MOSFET (or two of one type) AND/OR One more MOSFET</p> <p>Does not work with: RGB, RFM12B, Charlieplex</p>	<p>SHIELD: RGB</p> <p>Uses pins: 0,1,4</p> <p>Works simultaneously with:</p> <p>Any two of these: Relay, IR, MOSFET (or two of one type)</p> <p>OR</p> <p>Any one of these: Relay, IR, MOSFET AND/OR USB Communication</p> <p>Does not work with: I2C LCD, I2C EEPROM, I2C Expander, RFM12B, Motor, Charlieplex</p>	<p>SHIELD: Motor:</p> <p>Uses pins: 0,1,2,4 OR 1,3,4,5 (set via solder jumper)</p> <p>Works simultaneously with:</p> <p>One of these: Relay, IR, MOSFET</p> <p>OR</p> <p>One each: LCD, EEPROM AND/OR Multiple: I2C Expanders</p> <p>OR</p> <p>USB Communication</p> <p>Does not work with: RFM12B, RGB, Charlieplex</p>
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<p>SHIELD: Relay:</p> <p>Uses pins: 2 OR 5 (set via solder jumper)</p> <p>Works simultaneously with: One each: LCD, EEPROM, MOSFET AND/OR Multiple: I2C Expanders AND/OR USB Communication</p> <p>OR</p> <p>One of these: Another Relay, IR, MOSFET AND/OR One each: LCD, EEPROM AND/OR Multiple: I2C Expanders</p> <p>OR</p> <p>MOSFET AND/OR RGB AND/OR USB Communication</p> <p>OR</p> <p>One of these: Another Relay, IR, MOSFET AND/OR One of these: RGB, Motor, RFM12B, Charlieplex</p>	<p>SHIELD: IR Receiver</p> <p>Uses pins: 2 OR 5 (set via solder jumper)</p> <p>Works simultaneously with: One each: LCD, EEPROM, MOSFET AND/OR Multiple: I2C Expanders AND/OR USB Communication</p> <p>OR</p> <p>One of these: Relay, Another IR, MOSFET AND/OR One each: LCD, EEPROM AND/OR Multiple: I2C Expanders</p> <p>OR</p> <p>MOSFET AND/OR RGB AND/OR USB Communication</p> <p>OR</p> <p>One of these: Relay, Another IR, MOSFET AND/OR One of these: RGB, Motor, RFM12B, Charlieplex</p>	<p>SHIELD: MOSFET</p> <p>Uses pins: 2 OR 4(PWM mode) OR 5 (set via solder jumper)</p> <p>Works simultaneously with: One of these: Relay, IR, Another MOSFET AND/OR One each: LCD, EEPROM AND/OR Multiple: I2C Expanders AND/OR USB Communication</p> <p>OR</p> <p>Two of these: Relay, IR, Another MOSFET (or two of one type) AND/OR One each: LCD, EEPROM AND/OR Multiple: I2C Expanders</p> <p>OR</p> <p>(in non-PWM mode) RGB AND/OR USB Communication</p> <p>OR</p> <p>(in non-PWM mode) One of these: Relay, IR, Another MOSFET AND/OR One of these: RGB, Motor, RFM12B, Charlieplex</p>
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<p>SHIELD: RFM12B</p> <p>Uses pins: 0,1,2,3,4</p> <p>Works simultaneously with: One of these: Relay, IR, MOSFET</p> <p>Does not work with: USB Communication, I2C LCD, I2C EEPROM, I2C Expander, Motor, RGB, Charlieplex</p>	<p>SHIELD: Breakout (A or B), SMT Proto, Through Hole Proto</p> <p>These shields connect to all pins, they can be used with any other shield or combination of shields, but you can only use those pins not already used by another shield.</p>	<p>SHIELD: Grove</p> <p>Uses pins: 0,1,2,4</p> <p>Works simultaneously with:</p> <p>(using the I2C/Digital port with I2C modules) One each: LCD, EEPROM AND/OR Multiple: I2C Expanders AND/OR USB Communication</p>
<hr/> <p>SHIELD: Charlieplex</p> <p>Uses pins: 0,1,2,3,4</p> <p>Works simultaneously with: One of these: Relay, IR, MOSFET</p> <p>Does not work with: USB Communication, I2C LCD, I2C EEPROM, I2C Expander, Motor, RGB, RFM12B</p>	<hr/> <p>SHIELD: Boost</p> <p>Works with any/all other shields – due to its size it likely needs to be the top shield.</p>	<p>OR</p> <p>(using both ports as for any module type) USB Communication</p>
	<hr/> <p>NOTE: STACKING SHIELDS:</p> <p>All shields come with male headers, to stack them you'll need to get a set of stackable headers for each shield except the top one. Stackable headers are available on the personal backer page.</p>	<p>OR</p> <p>(using both ports as for any module type) One of these: Relay, IR, MOSFET AND/OR Another MOSFET</p> <p>Using only one of the ports it will work with any shield (and many combinations) except for RFM12B, Charlieplex, and Motor</p>

PIN USAGE BY SHIELD

All pins can be digital i/o	P0 (AREF/SDA/DI/PWM)	P1 (DO/PWM)	P2 (Analog/SCK)	P3 (Analog/USB+)	P4 (PWM/Analog)	P5 (Analog/USB-)
USB Communication				X		X
I2C LCD	Shared with I2C		Shared with I2C			
I2C EEPROM	Shared with I2C		Shared with I2C			
I2C Expander	Shared with I2C		Shared with I2C			
RFM12B	X	X	X	X	X	
Relay			X			or X
MOSFET			X		or X	or X
IR			X			or X
Grove	X	X	X		X	
RGB	X	X			X	
Motor	X	X	X		X	
Motor (alt pins)		X		X	X	X
Charlieplex	X	X	X	X	X	

NOTE: USB Communication – this is only for communicating over USB when the program is running, you can always program the unit via USB.