



Pmods™ are small I/O interface boards that offer an ideal way to extend the capabilities of programmable logic and embedded control boards. They allow sensitive signal conditioning circuits and high-power drive circuits to be placed where they are most effective - near sensors and actuators.

Pmods communicate with system boards using 6 or 12-pin connectors that can carry up to 4 or 8 digital control signals, including SPI and other serial protocols. Pmods allow more effective design partitions by routing analog signals and power supplies only where they are needed, and away from digital controller boards.

8LD	Eight high bright LEDs driven by logic level inputs.	DA3	Single 16-bit, serial input, unbuffered voltage output digital-to-analog converter.	OD1	Provides four open drain outputs at up to 3A sent to screw terminal connectors.
ACL	3-axis digital accelerometer with SPI and I ² C interfaces. Includes single/double tap & free-fall detection.	DA4	Converts 8 12-bit channels of output from digital to analog.	OLED	128 X 32 pixel OLED display w/ internal display buffer and a standard SPI interface.
ACL2	3-axis MEMS accelerometer with 12-bit resolution & an SPI interface. Includes single/double tap & free-fall detection.	DHB1	Dual H-Bridge motor driver - can drive 2 DC motors or 1 stepper motor	PMON1	Digital power monitor capable of monitoring from 3.16V to 26V. Includes configurable alert and an I ² C interface.
AD1	Converts 2 analog signals to 12-bit digital at a maximum sampling rate of one MSa/second.	DIP	DIP-to-Pmod adapter, allowing you to add a 2x6-pin Pmod interface to your solderless breadboard project.	PS2	Provides a PS/2 port for the connection of a mouse or keyboard.
AD2	Converts up to 4 analog signals to 12-bit digital. Features an I ² C interface.	DPOT	Digital potentiometer w/ 256 resistance levels, screw terminal & MTE connections, and 13-wire SPI interface.	R2R	Resistor ladder D/A converter supporting 8-bit conversion at up to 25 MHz.
AD5	Converts 4 differential (or 8 pseudo-differential) inputs to 24-bit digital. Features an SPI interface.	ENC	Rotary Encoder Module with integral push-button. Also includes a slide switch.	REG1	Voltage regulator able to provide up to 250ma of current at 3.3V.
ALS	Ambient light sensor with 8-bit resolution and an SPI interface.	GPS	GPS module featuring a GlobalTop Gms-u1LP antenna module w/ low power consumption & UART interface.	RF2	IEEE 802.15 wireless radio transceiver that supports ZigBee®, MiWi™, MiWi P2P and other protocols.
AMP2	Amplifies low power audio signals to drive a monophonic output.	GYRO	3-axis digital gyroscope with SPI & I ² C interfaces. Includes selectable resolutions and a built-in temperature sensor.	RS232	DB9 connector driven by logic level inputs translated to RS232 voltage.
AMP3	2W stereo power amplifier w/ digital input. Works with I ² C audio protocol or TDM. Can also operate stand-alone.	GYRO2	1-axis high-performance digital gyroscope with $\pm 300^\circ/\text{sec}$ angular rate sensing and a simple SPI interface.	RTCC	Real-time clock/calendar w/ battery backup, 128bytes EEPROM, 64 bytes SRAM, 2 alarms, & I ² C interface.
BB	Easy prototyping with a 266 tie point wire wrap area. Ships with a 170 tie point bread board.	HB3	2A H-bridge module ideal for driving small to medium-sized DC motors using screw terminal connectors.	SD	Provides a convenient SD card interface for use with Digilent system and microcontroller boards.
BT2	Bluetooth module using a simple UART interface. Works in a wide range of modes.	HB5	2A H-bridge module ideal for driving small to medium-sized DC motors using 6-pin JST connector.	SF	Provides 16Mbit (2Mbyte) of flash ROM memory, accessible via an SPI interface.
BTN	Four debounced momentary pushbuttons.	I²S	Stereo audio output w/ stereo D/A converter and supporting 16 to 24-bit audio at multiple sample rates.	SF2	Provides 128Mbit (16Mbyte) of serial PCM memory, accessible via an SPI interface.
CDC1	Demonstrates capacitance-to-digital proximity sensing through two capacitive "buttons". Uses I ² C interface.	IOXP	I/O port expander w/ an I ² C interface, 16-element FIFO, 19 I/Os, keypad decoding, PWM generator, & more.	SSD	Two-digit high bright seven-segment display.
CLP	16x2 character LCD with optional backlight and 3.3V or 5V operation.	JSTK	Two-axis resistive joystick with an integrated center button and two additional push buttons.	STEP	Stepper motor driver w/ a push-pull 4-channel driver, driving up to 600 mA per channel. Host or external power.
CLS	16x2 character LCD display, controlled via UART, SPI or TWI and a simple terminal-like interface.	KYPD	16-button keypad, numbered hexadecimally (0-9, A-F).	SWT	Four slide switches.
CMPS	3-axis digital compass with ± 8 gauss field detection and an I ² C interface.	LED	Four high bright LEDs driven by logic level inputs.	TMP2	Temperature & thermostat control module with up to 16-bit resolution and an I ² C interface.
CON1	Six screw terminal inputs. (four for I/O, two for VCC & GND)	LS1	Line sensor interface for connecting up to four optical sensors.	TMP3	Temperature sensor module w/ programmable 9 to 12-bit resolution, $\pm 1^\circ\text{C}$ accuracy & an I ² C interface.
CON3	Route 4 digital signals to four three-pin servo motor connectors.	MAX-SONAR	Single-transducer ultrasonic range finder. Can measure distances over 20 feet with 1-inch resolution.	TPH	Six test points for in-line debugging between a system board and a Pmod.
CON4	Route two of four jumper-selectable digital signals to two RCA connectors.	MIC	Small form-factor electret microphone with preamp, dynamic range compressor, and 12bit A/D converter.	TPH2	Twelve test points for in-line debugging between a system board and a Pmod.
DA1	Converts 4 8-bit channels of output from digital to analog at up to one MSa/second.	NIC100	IEEE 802.3 Ethernet controller with an SPI interface. Offers MAC support and 10/100 Mbs operation.	USBUART	USB to serial UART interface with a micro USB connector.
DA2	Converts 2 12-bit channels of output from digital to analog at up to one MSa/second.	OC1	Provides four open collector outputs at up to 200 mA sent to a 6-pin header connector.		

Key: **Input/Output** **Sensors/Actuators** **Data Conversion** **Connectors** **Misc.**