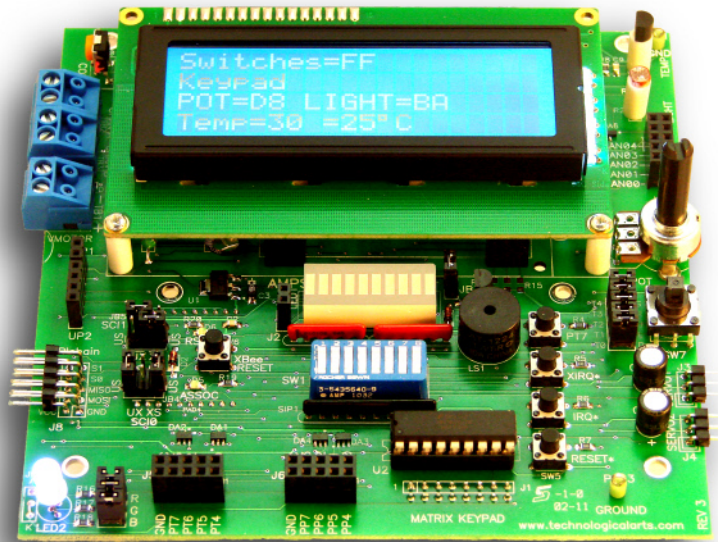




AMPS™ EVALH1

Microcontroller Interface Training Board



PRODUCT FEATURES:

- 10-segment LED bar graph
- 8-position DIP switch
- interrupt pushbuttons
- audio transducer
- linear temperature sensor
- light sensor
- linear potentiometer
- dual-axis joystick
- two R/C servo connectors
- Red-Green-Blue (RGB) LED
- dual H-bridge motor driver
 - pluggable terminal blocks
- connector for USB retrofit
- socket for XBee radio module
- 3.3 Volt regulator
- ESD-protected I/O connectors
- socket for character LCD
- standard 50-pin I/O connector
 - use any Adapt MCU module
- several connector options
- stackable vertically or horizontally
- four mounting holes

AVAILABLE OPTIONS:

- character LCD add-on kits:
 - 16x4 LCD (LCD16X4AK)
 - 20x4 LCD (LCD20X4WBAK)
- matrix keypad add-on kit:
 - 3x4 (#MK3X4AK)
 - 4x4 (#MK4X4AK)
- USB retrofit (#USB2MCU)
- Zigbee radio module (#XB24-Z7CIT-004)
- USB host XBee carrier (#USB2X)
- I/O connectors can be male instead of female (by request)

Overview

EVALH1 is a full-featured training board for use with the Adapt Modular Prototyping System (AMPS) for microcontrollers. This hardware enables training, learning, and experimenting with any one of more than a half dozen different microcontrollers that are currently supported by the AMPS product lineup (more to come): 68HC11, 68HC812, 68HC912, 9S12C, 9S12D, 9S12E, 9S12XD, 9S12XE, and 9S12XS. Just plug your chosen Adapt MCU card (e.g. Adapt9S12C32, Adapt9S12DP512, Adapt9S12XS128, etc.) into the 50-pin I/O connector on EVALH1. Then use your preferred development tools for writing and debugging application code. A community repository of functions and examples, supporting most hardware features, is available for various target MCUs.

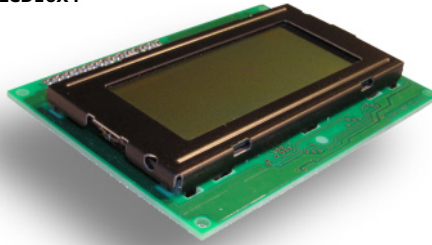
Details

EVALH1 includes all of the classic interface devices you would expect: character LCD, DIP switch, pushbuttons, LED bar graph, light sensor, temperature sensor, audio transducer, keypad encoder, and potentiometer. But it also includes several new ones: Red-Green-Blue (RGB) LED, dual H-bridge motor driver circuit, connectors for R/C servos, a dual-axis joystick, and XBee radio option for working with Zigbee. A dedicated SPI connector supports the addition of existing and upcoming serial peripheral modules for things like architectural lighting, 7-segment displays, dot-matrix displays, SD cards, audio playback, etc.

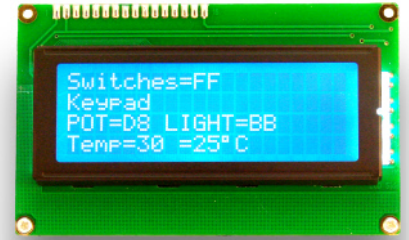
How to order

Select the connector style you need so that your Adapt MCU card will plug into the 50-pin I/O connector properly. For example, if your MCU card has RA1 connector style, and you want a planar configuration when you plug the two boards together, you would choose FRA1 as the connector style for EVALH1. If you have an M style connector on your MCU card, and you'd like to plug it onto the back of EVALH1, choose F1 for the connector option on EVALH1. Then select from the Available Options shown at the left. See page 2 for details.

Optional 4x16 non-backlit character LCD module with mounting hardware (not shown): #LCD16X4



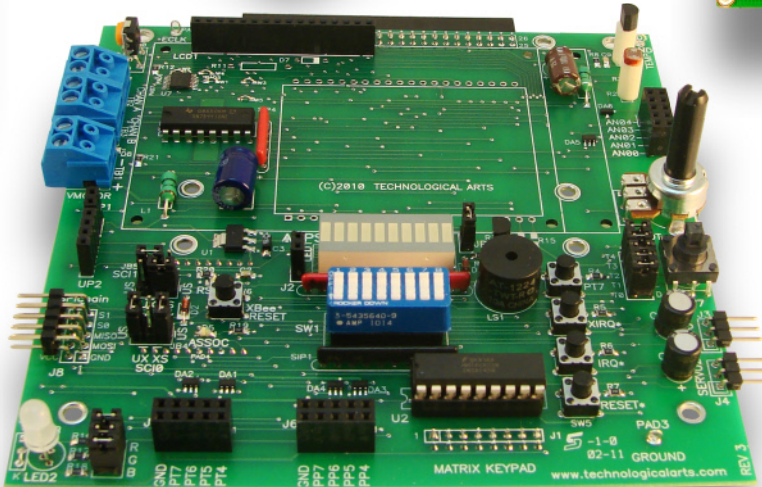
Optional 4x20 LED-backlit "white-on-blue" LCD module with mounting hardware (not shown): #LCD20X4WBAK



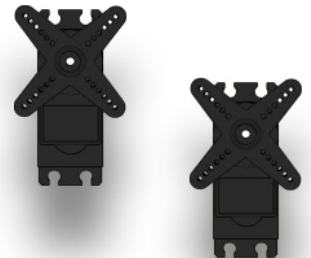
Drive circuit for one bipolar stepper motor or two DC motors



Optional USB retrofit Module (#USB2MCU)



Connectors for standard hobby R/C servo motors



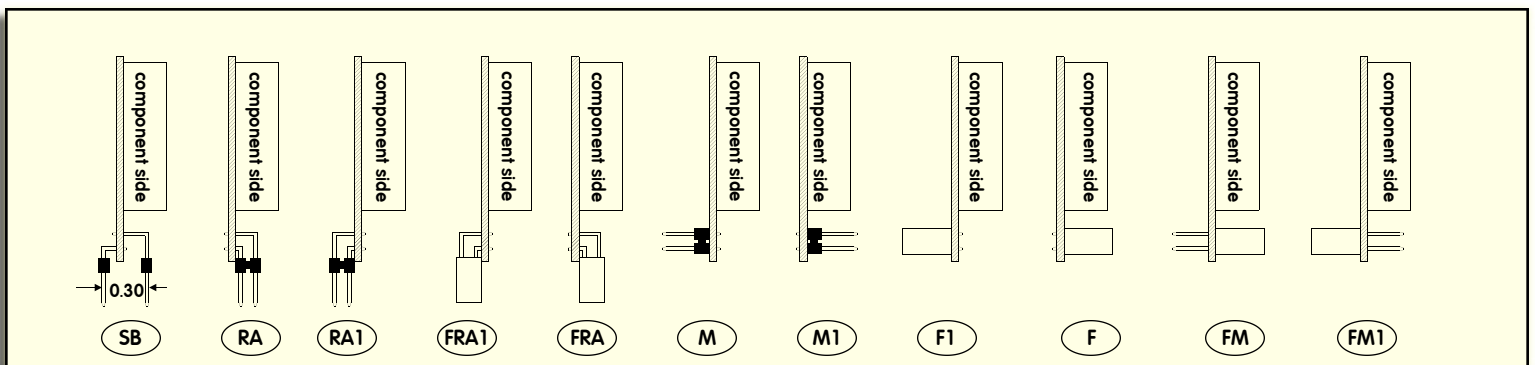
Optional USB host Adapter (#USB2MCU) with Xbee radio module (#XB24-Z7CIT-004). Note: a second Xbee module is required for EVALH1 (plugs underneath)



Optional matrix keypad add-on kit, including encoder chip, ribbon cable, and mounting hardware:
12-key: MK3X4AK
16-key (not shown): MK4X4AK

Standard Connector Options

All connectors are standard 0.025" square pins or mating receptacles on a 0.1" grid
F indicates Female (receptacle) and M indicates Male (plug). Use "NC" for "no connector"



Order Code: AMPS-EVALH1-□
Fill in connector option code □ to mate with H1 on your Adapt MCU module. Note that the P1 connector on EVALH1 has a mirror-image pinout, meant for use primarily in a co-planar or back-to-back stacking arrangement. Contact us if you need help choosing the right option.

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