EXTEND BREADBOARD and PROTOTYPE OPTIONS FOR MICROCONTROLLERS
ARDUINO, BASIC STAMP, BEAGLEBONE, RASPBERRY PI, and MORE

VASTLY EXPAND EXISTING BREADBOARD CAPABILITY

BULLETIN MCB-100

Breadboard shields for ARDUINO and breadboard capes for BEAGLEBONE are available from a variety of sources. Add to these prototype breadboards for the BASIC STAMP, RASPBERRY PI, and most other microcontrollers / microcomputers and EMBEDDED DEVELOPMENT platforms. While these boards in all their various forms offer some sort of grid or breadboard area, they lack space for anything other than a handful of components and often suffer from limitations on component types or interconnect area. Often times one desires to use devices not natively supported by the existing breadboard or needs to build circuitry beyond the space limitations the standard boards impose.

The use of SURFBOARDS® SMT adapters and surface mount breadboard modules and UNI-SIP™ miniature breadboard modules for through-hole components helps to solve these problems. One can vastly increase the range of component package types usable and greatly increase the breadboarding area available by extending it with additional surface mount or through-hole breadboard modules. The expansion of the native breadboard in this way offers the circuit builder an enhanced opportunity to develop more sophisticated prototypes while still using off the shelf products. See the standard products page on our website for available models.

Circuit builders can combine SURFBOARDS® SMT adapters and SMT breadboards with UNI-SIP™ miniature breadboard modules in a great number of combinations. Sometimes it may be desirable to build circuit sub-modules that can be changed or modified. By using SIP sockets with the native breadboard the sub-assemblies can be plugged in and removed easily.

SEE NEXT PAGE FOR MORE CIRCUIT EXAMPLES.
The example circuit assemblies shown here demonstrate the concepts discussed. The top breadboard assembly incorporates several 33000 series SURFBOARDS® SMT Adapters used to mount a variety of surface mount devices. The adapters can be soldered into the standard .1 in. grid or sockets can be added to make them interchangeable or removable if desired.

The center example shows a combination of UNI-SIP™ through-hole breadboard modules and both 6000 and 33000 series SURFBOARDS® to support both active and passive surface mount components. As can be seen rather sophisticated circuits can be built that would not otherwise fit in the space available on the standard breadboard. SURFBOARDS® 6000 series SMT breadboard modules are available in a wide range of patterns and pin counts and make it possible to increase density by using surface mount components on the breadboard assembly to conserve space and increase component density.

The bottom example shows how stacking can be used. Note the UNI-SIP™ board used as a mother board for a SURFBOARD®. By using breadboard on breadboard (BoB), and even breadboard on breadboard on breadboard (BoBoB) combinations the user is provided with a tremendous range of circuit building options otherwise not possible with the standard breadboards available for the various microcontrollers on the market.

To see the range of breadboard and SMD adapter products we offer along with useful information for circuit builders please visit and bookmark our website.

WWW.Capitaladvanced.com