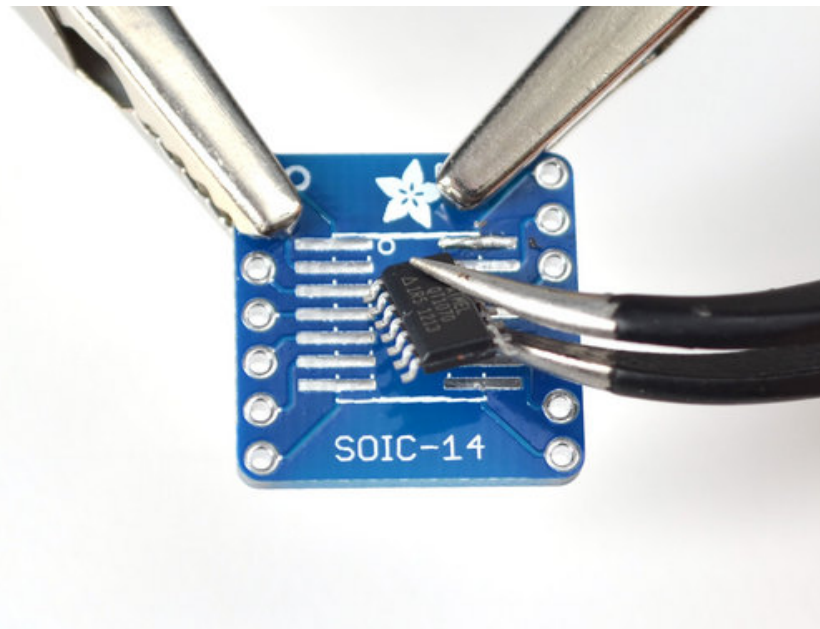


SMT Breadboard Prototyping Using Breakout PCBs

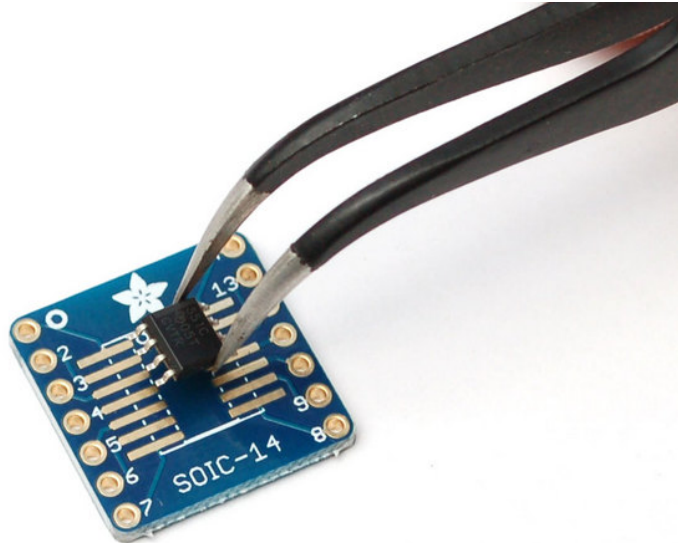
Created by Ladyada



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Soldering an SOIC	6

Overview



Nothing is as fast and fun as prototyping on a breadboard, but at some point you will find that the chips you want to work with are only available in non-breadboard-friendly SMT/SMD (Surface Mount Technology/Surface Mount Device). Unlike most DIP chips and resistors, SMT parts do not have the leads going through holes in the PCB. Instead, they 'float' on top, with often-rectangular solder pads.

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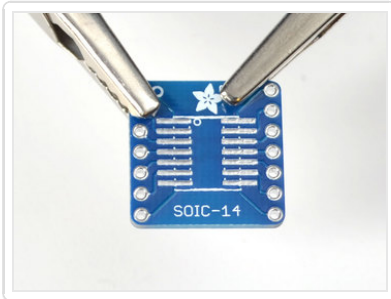


You'll also need a soldering iron with a fine tip. Although a good iron is a little expensive, its the most important tool and we suggest investing in a good one. [Our favorite is the Hakko FX-888D \(http://adafru.it/1204\)](http://adafru.it/1204) with the [fine SMT tip \(http://adafru.it/1249\)](http://adafru.it/1249)

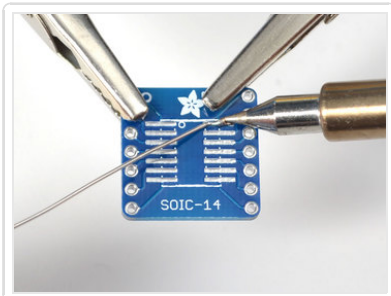


Soldering an SOIC

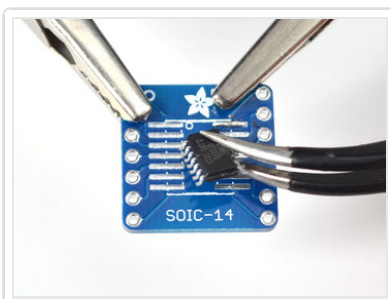
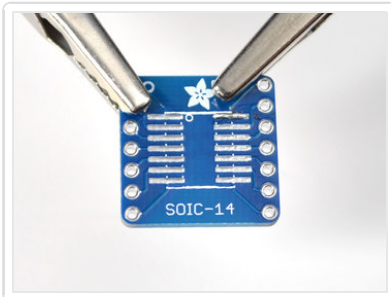
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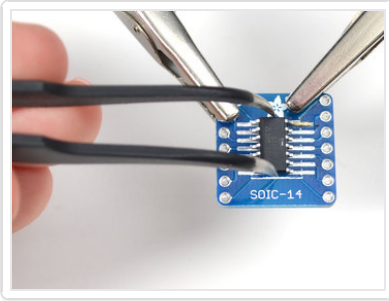
Begin by placing the breakout adapter into your vise/third hand to keep it steady.



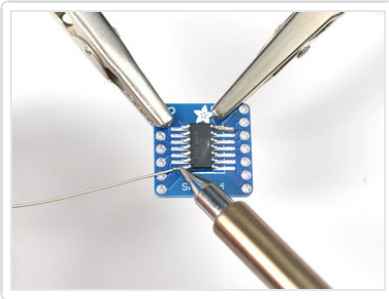
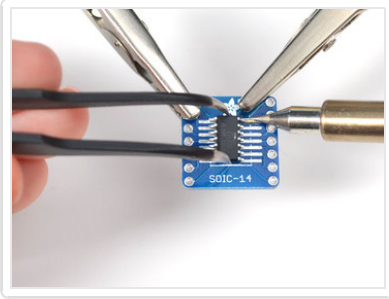
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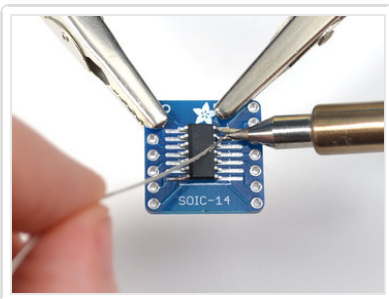
Next you need to place the part onto the pads, and you'll want to get the orientation right. You can look for a dot (indicating pin #1). In some cases, look for a flattened corner (on the left side here) which indicates which side is on the left



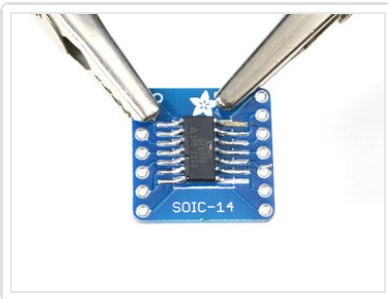
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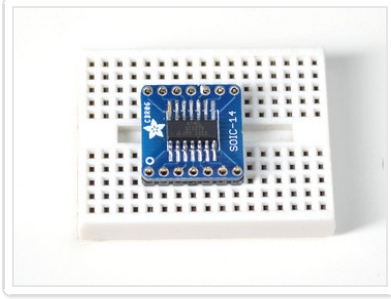
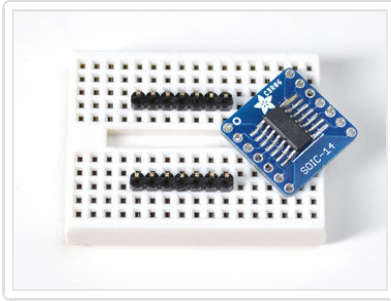


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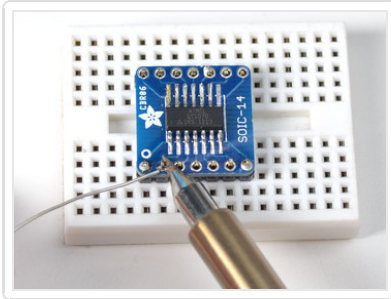
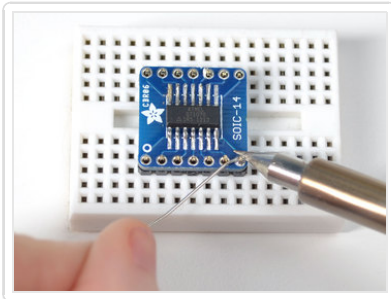
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The hard part's done! Now we can solder on regular 0.1" spaced male header. We like the break-away kind so its easy to get just the right amount. (You can get some at the adafruit shop if you don't have any!) (<http://adafru.it/392>)

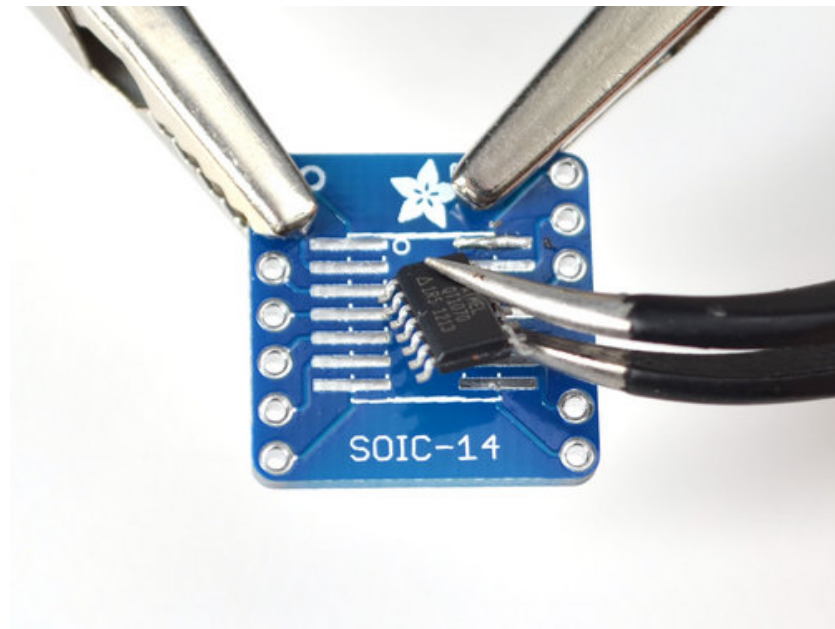
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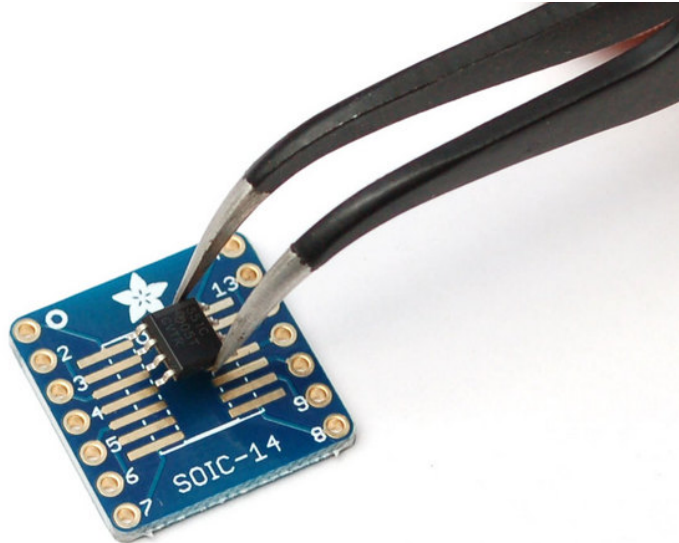
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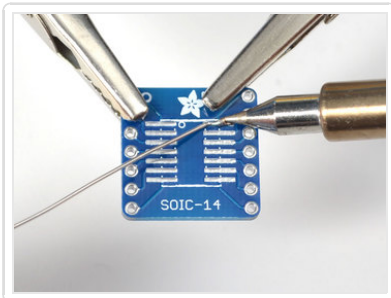


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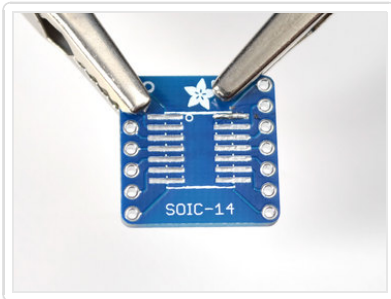
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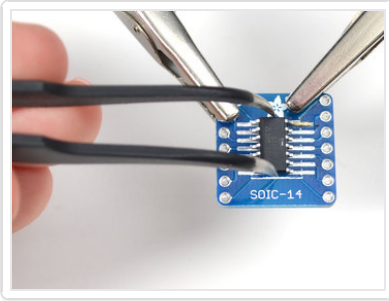
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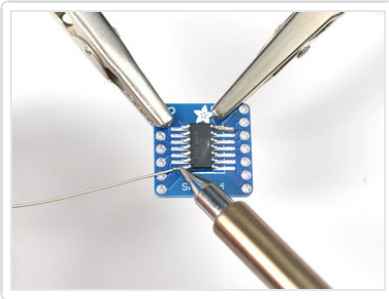
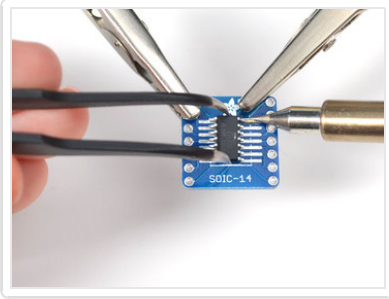
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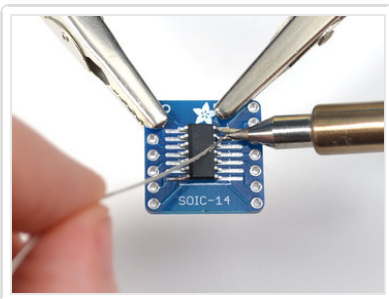
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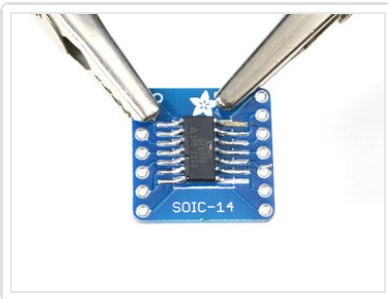
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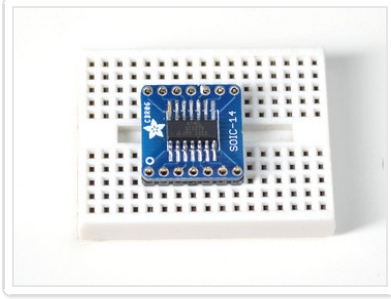
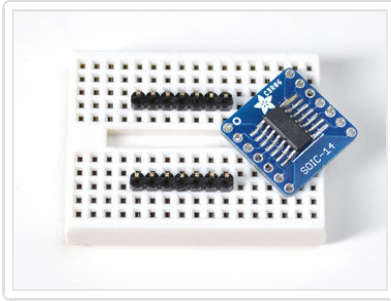


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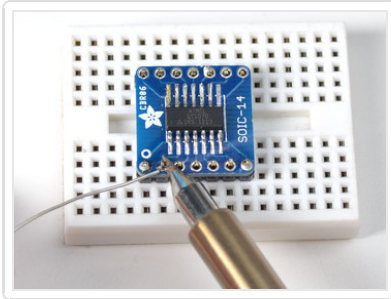
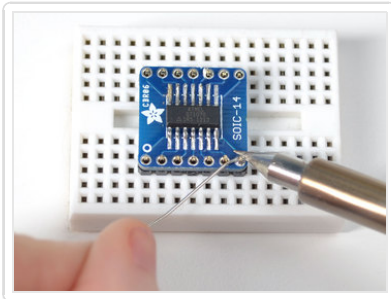
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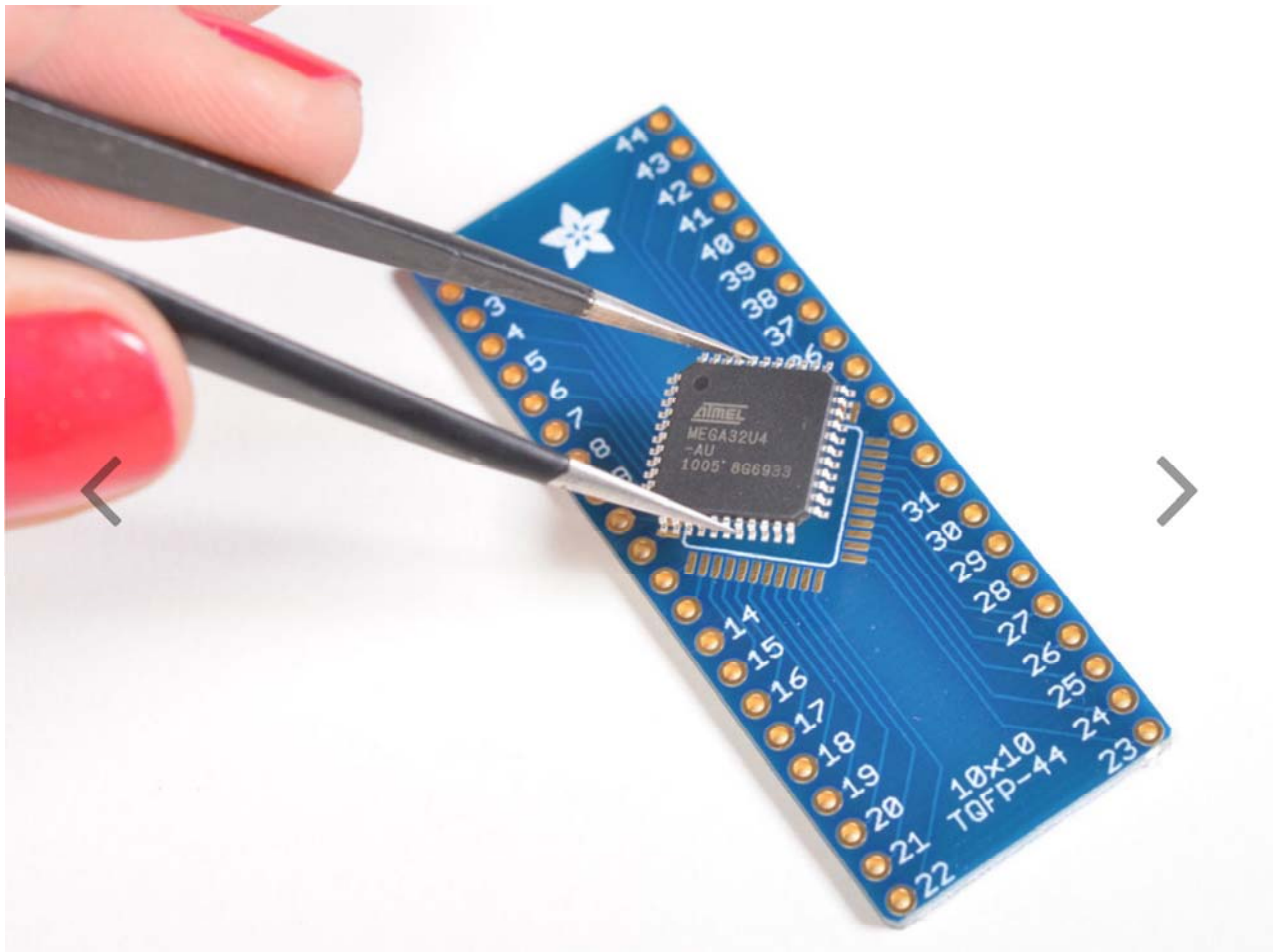
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SMT Breakout PCB for 44-QFN or 44-TQFP – 3 Pack!

PRODUCT ID: 1162

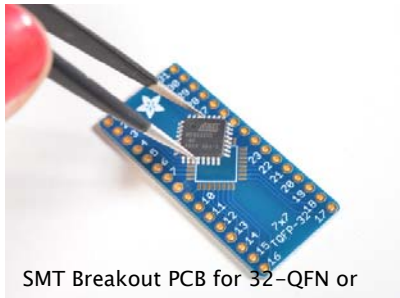


DESCRIPTION

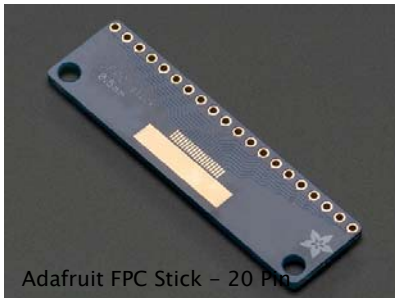
Beguiled by a fancy new chip that is only available in a QFP or QFN pinout? This breakout PCB set will make your life much much easier and get you prototyping faster than ever. One side has a 44-QFP pin out with traces going to two rows of 0.1" spaced holes, the other has 44-QFN. Solder your chip to either side and you're ready to rock on any solderless breadboard.

Each item comes with three PCBs, each PCB is identical and can support either a 10mm square QFP or 7mm square QFN chip. Standard thickness PCBs, with 0.7" spacing between the two rows.

MAY WE ALSO SUGGEST...



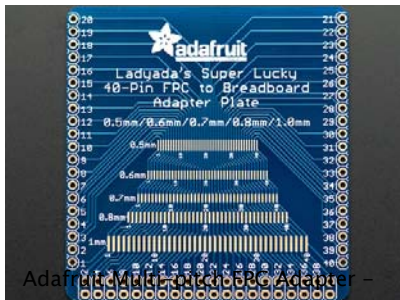
SMT Breakout PCB for 32-QFN or
(/products/1163)



Adafruit FPC Stick - 20 Pin
(/products/1325)



SMT Breakout PCB for SOIC-16 or
(/products/1207)



Adafruit Lada's Super Lucky 40-Pin FPC to Breadboard Adapter Plate
(/products/1436)



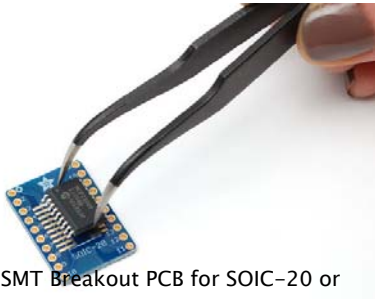
SMT Breakout PCB for SOIC-14 or
(/products/1210)



SMT Breakout PCB for SOIC-8,
(/products/1212)



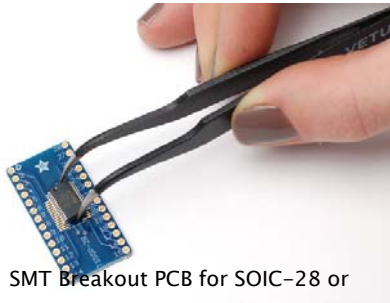
SMT Test Socket - TQFP-44
(/products/1239)



SMT Breakout PCB for SOIC-20 or
(/products/1206)



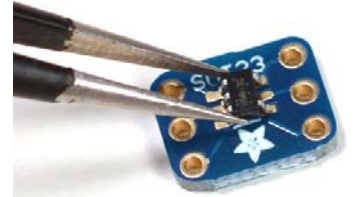
SMT Breakout PCB for 48-QFN or
(/products/1377)



SMT Breakout PCB for SOIC-28 or
(/products/1208)



SMT Breakout PCB for SOIC-12 or
(/products/1211)



SMT Breakout PCB Set For SOT-23,
(/products/1230)

+



(https://verify.authorize.net/anetseal/?
pid=1de2c247-f7e6-
492b-99d8-
fb648be79ff1&rurl=http%
3A//www.adafruit.com/product/1162)
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