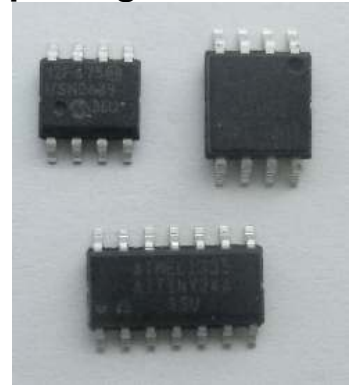# AtTinySMDProgrammer
A shield to program an AVR AtTiny in SMD package

The Tiny13A/25A/45/85 are available in two different packages, 8S2 (8x5.2mm) and SO8/SOIC8/S8S1 (6x4.9mm). Be carefull, both packages are usually named SO8 or SOIC8. Atmel offers many ordering numbers and Eagle or other CAD systems may not propose under the same name the package corresponding to what you bought. The S8S1 has a shorter package and is more difficult to position.

The smaller SSOP8 socket is for a future Tiny-8 using this package. Same for the 6-pin SSOP6.

The Tiny24/44/84 uses the 14S1 (6x8.7mm) package, named by everybody else S014 or SOIC14.

www.didel.com/diduino/AtTinyProgramming.pdf

AtTinySMDProgrammer is expensive due to the press-fitted pins and magnets, and a pressure bar with adjustable screws.
Position the smd between the pins, put the pressure bar, adjust the screw so that the close-by magnets have a small gap.
Select a tweezer with a sensitive grip and you are ready to position and program a bunch of AtTiny's.

Of course, to guarantee a good contact, the gull-wings of the package must be as delivered by the manufacturer. A small size flat plyer gives easily a good shape again.
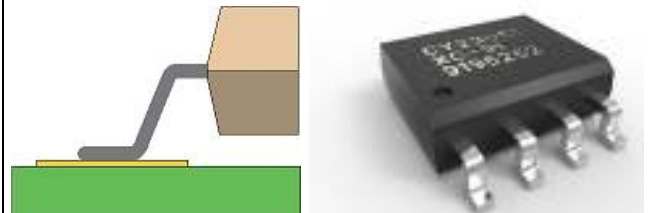
For SMD packages, pins position the circuit and one depress on the circuit during programming. The "gull wing" shape of the contacts have the required elasticity. This design has been used for 10 years on the Microchip Pics 10F, 12F, 16F.

Upgrade for SMD yourself?

You can program your SMD circuits in a reliable way with press-fitted positionning pins that protrude by 0.5 to 1mm. During programming, you press on the circuit.

The problem is to have 1mm pins that fit. A hacker solution is to use SMD 0603 capacitors of any value. Stick cellotape below, insert the capacitors. It will stay in place for some time due to the cellotape.