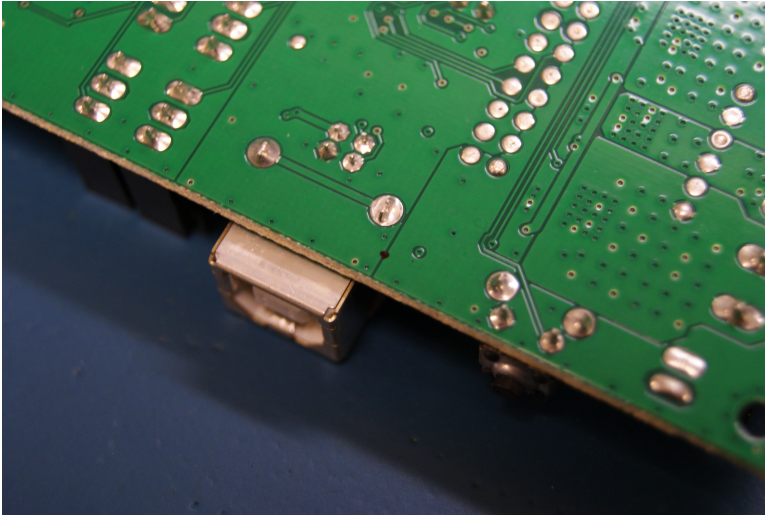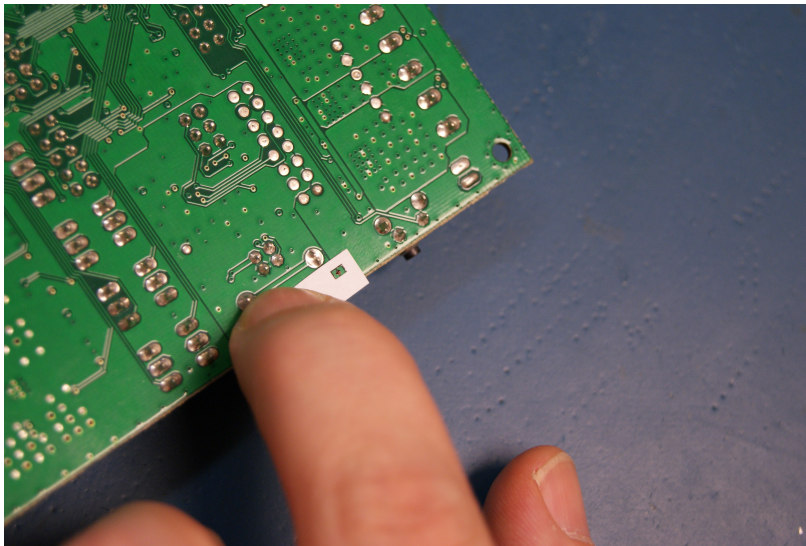RAMBo 1.2 SMT ESD Patch
Prepare a static free work zone.
Varistor part number: CG0603MLC-05E
Tools: Fine tip Sharpie, paper stencil, razor cutter, scraper (fine tip flat head screw driver), solder paste, tweezers, hot air station (or solder iron), magnification is optional but recommended
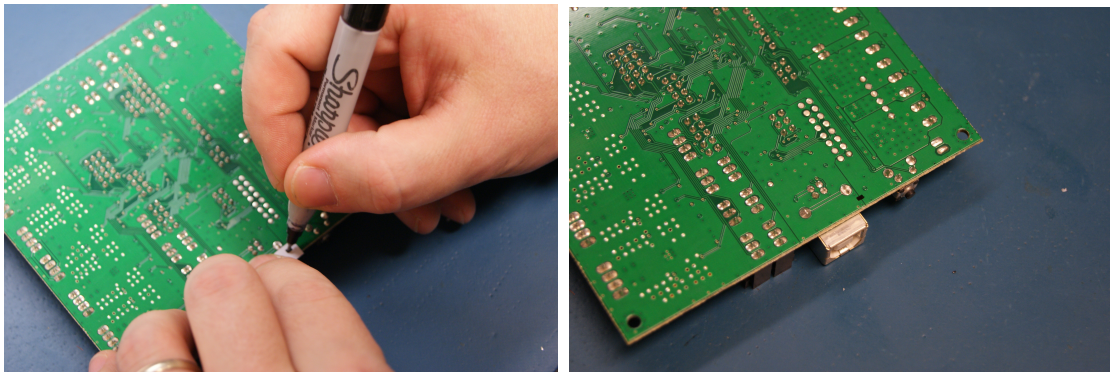
1.Mark proposed patch location with fine tip Sharpie.


2. Center stencil over mark.

3. Fill stencil with sharpie. Hold stencil tight to prevent movement. Stencil shown (2mm x 1.2mm) is suitable for hot air. 3mm x 2mm stencil is better for use with solder iron.

4.Use razor tool to cut a border around the stenciled mark. Be careful to only cut the solder mask. This step is best done under magnification.
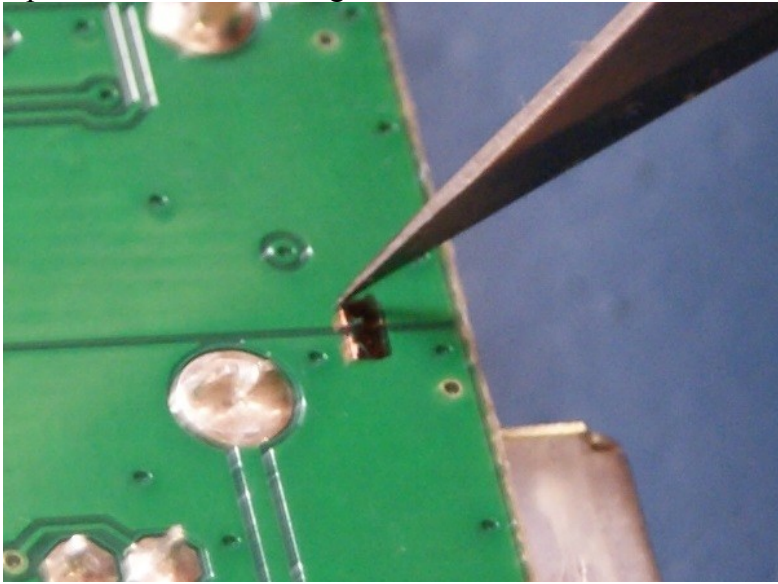
5.Use scraper tool (screw driver or sharp tool) to scrape the solder mask from the marked area. Take care not to damage the copper plane. It can help to rotate the board to clear the region. It is OK to leave the solder mask in the clearance between the two copper planes. This is also best under magnification.
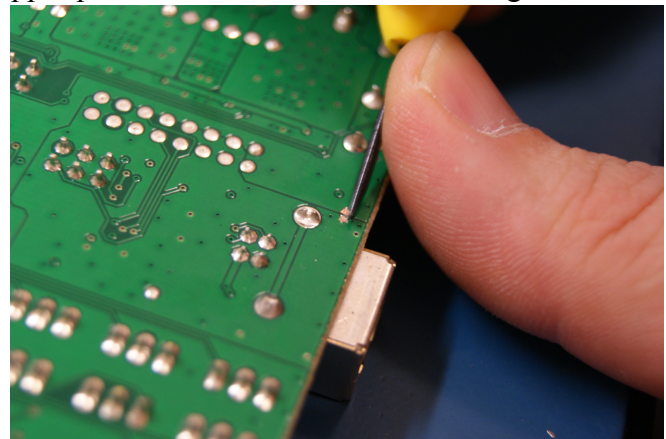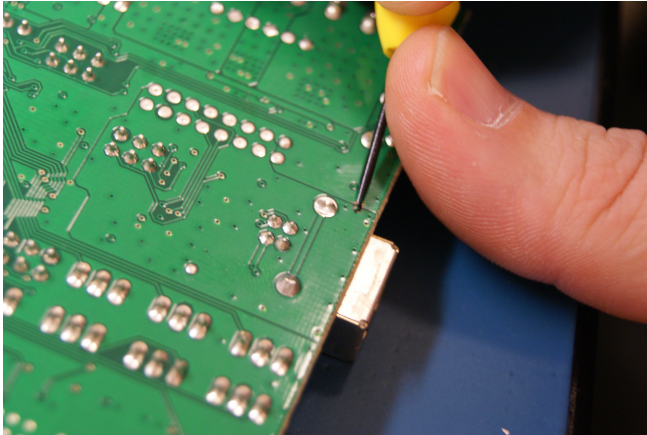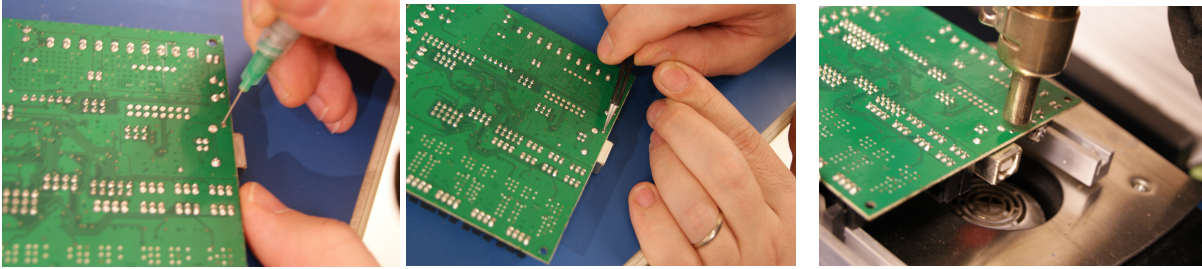

6.Place varistor or stencil over pad to check your progress and clear more solder mask as needed. We used hot air to perform this patch. For a soldering iron you will need to clear more mask.
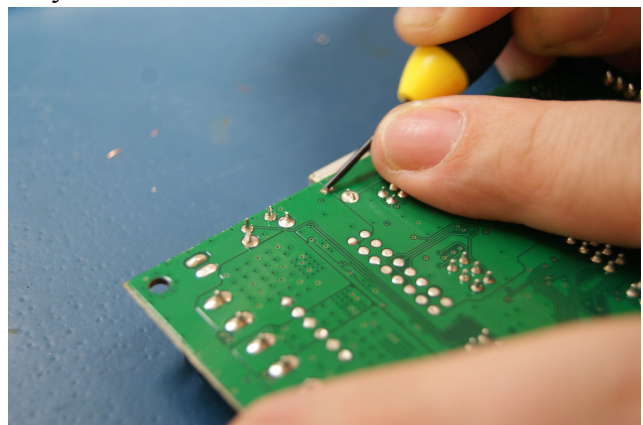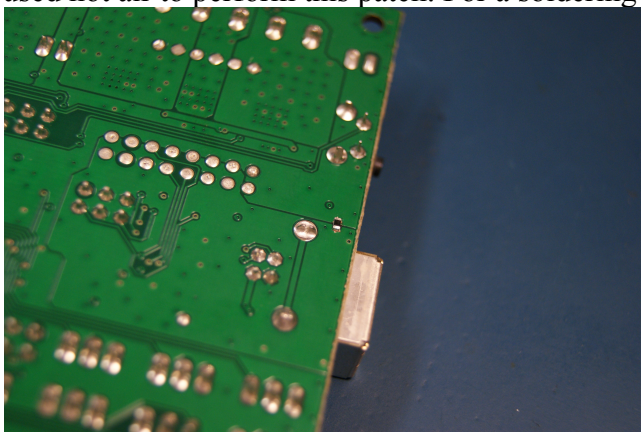
7. Add solder paste. (If using paste)
8. Place varistor
9. Use hot air (or iron) to solder.

10. Test the circuit.