

Introduction

This activity is designed to allow students to practice surface mount soldering before they begin work on the MegaSAT board.

Materials List

1. Soldering Iron
2. Solder
3. Gikfun SMT Practice Kit
4. Tweezers
5. Magnifier/Camera/Solder Microscope (Recommended)

Part 1

1. Unlike the through-hole kit, the SMT kit is merely a board and a set of components for students to practice the technique of surface-mount soldering.
2. It is recommended that students watch the video linked next to this activity on the LaACES website.
3. The components used in the practice kit are metric sizes, but the 0805 and SOP14 packages are about the same size as the components used on the MegaSAT board.
4. Students do not need to fully assemble the board; they should merely practice until they are proficient and feel confident in their ability to assemble a circuit. Additionally, not all students need to complete this activity, only the students responsible for the electrical assembly of the payload (along with 1 or 2 backups).

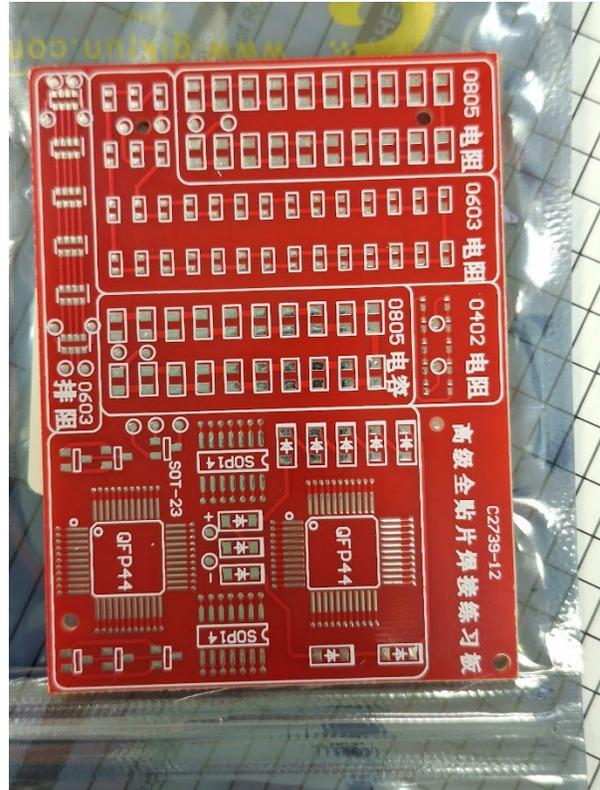


Figure 1: Surface Mount Solder Practice Kit. Unlike the through-hole kit, this is not a working circuit; it is merely a set of pads and components