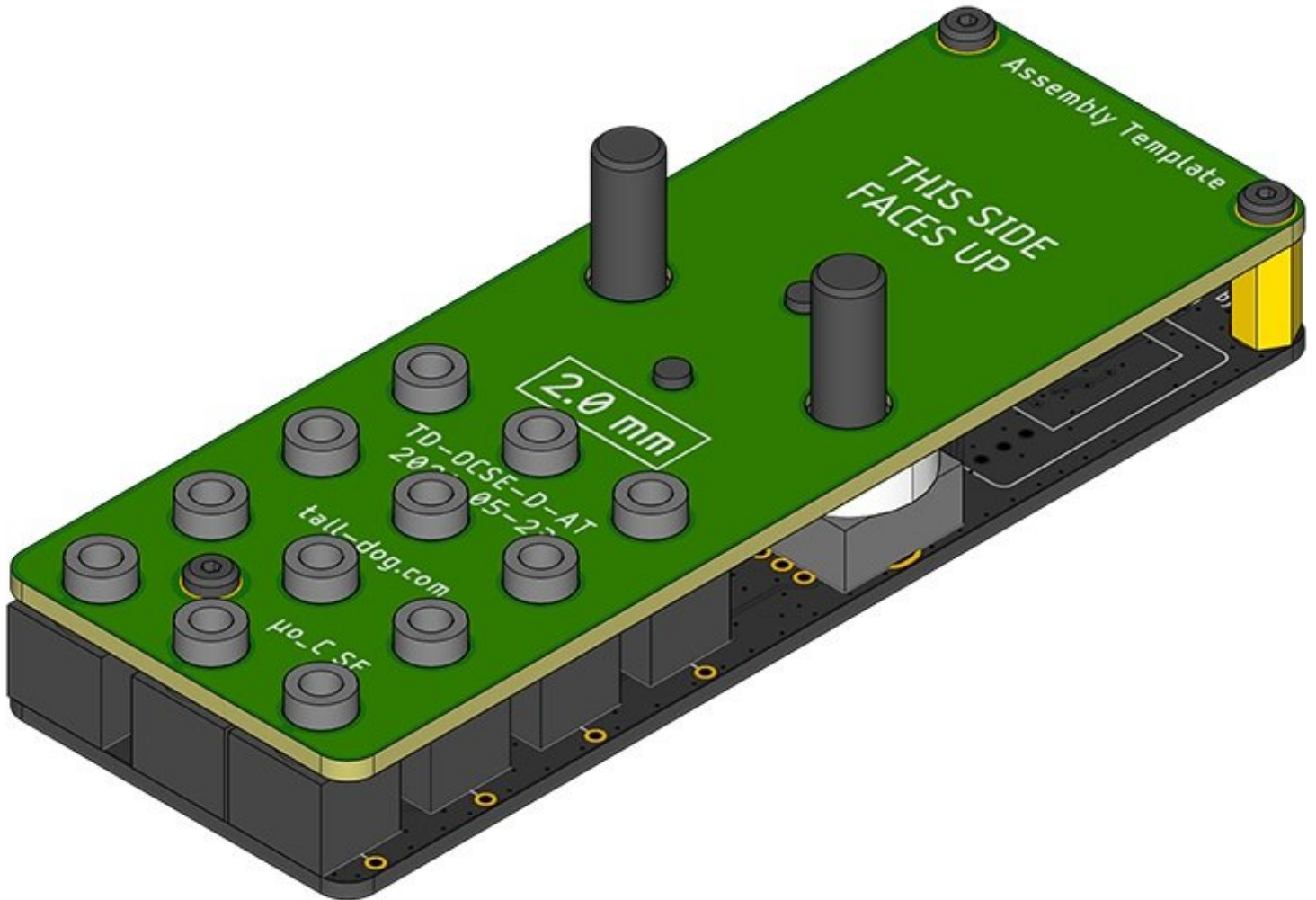


Tall Dog Electronics

μo_C SE Assembly Template Instructions

Written By: Daniel Gilbert



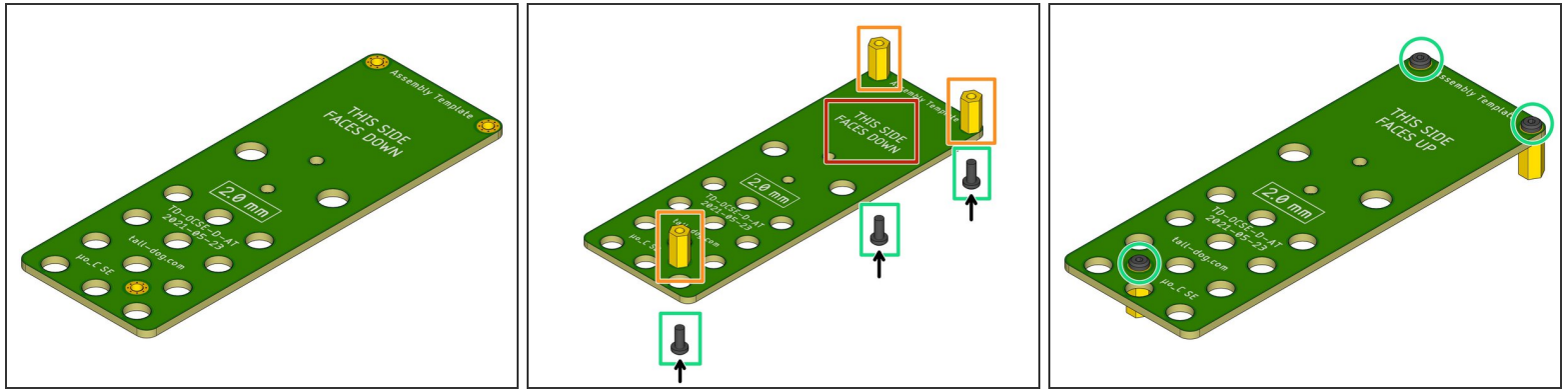
**TOOLS:**

- 1.5 mm hex driver (1)

**PARTS:**

- μo_C SE Main Board assembly (1)
- μo_C SE Assembly Template (1)
- μo_C SE Assembly Spacer (1)
- M2.5 × 10 mm female standoff (3)
- M2.5 × 6 mm pan head machine screw (6)

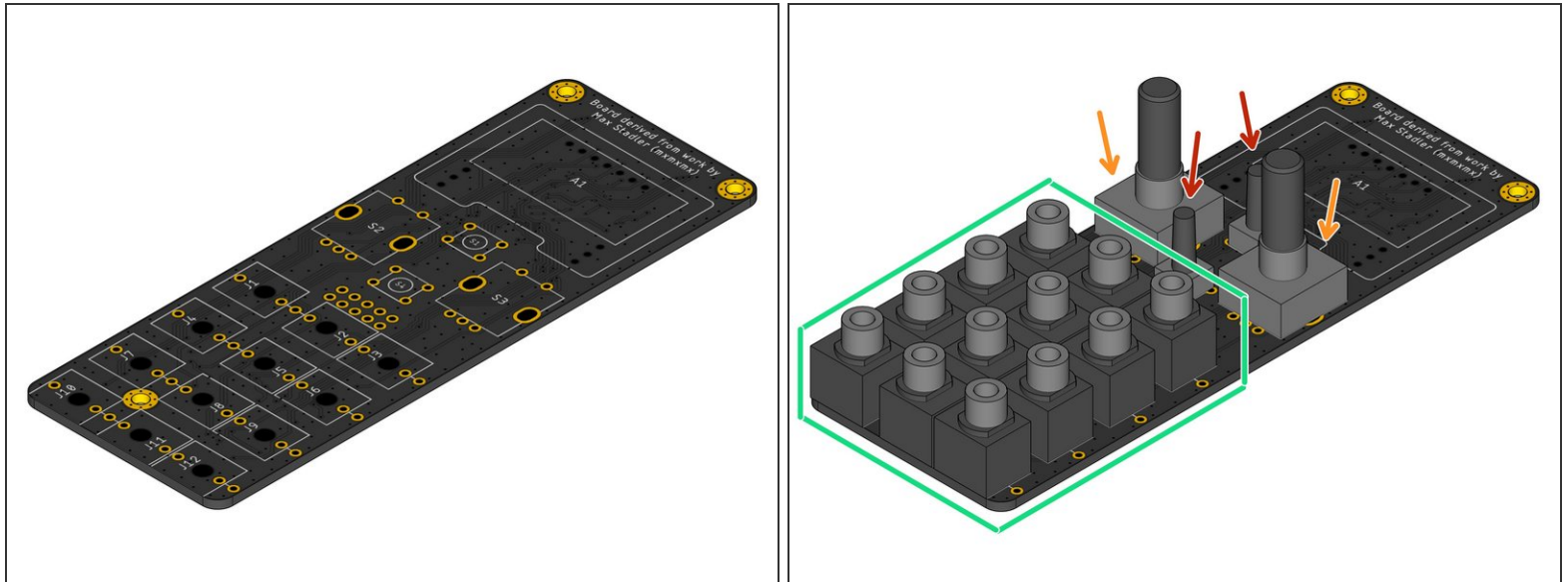
Step 1 — Prepare the Assembly Template



i **This step only needs to be done once.** The standoffs can remain attached to the template permanently for subsequent iterations.

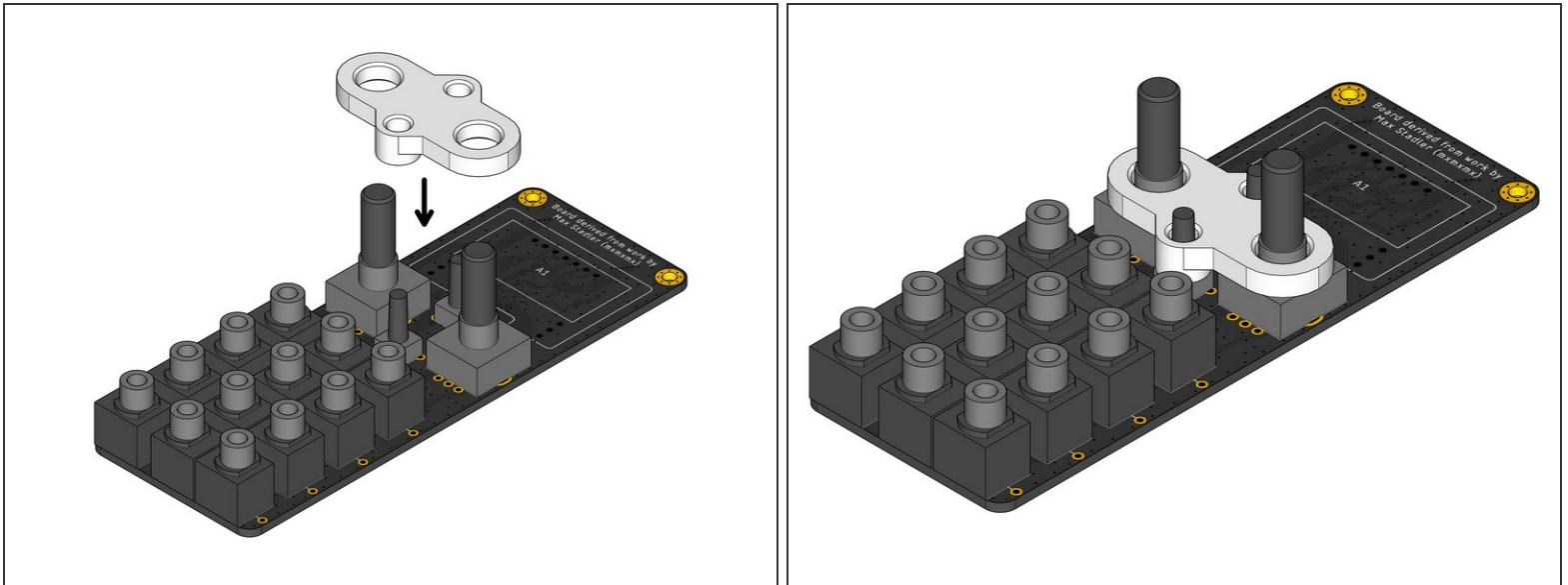
- Identify the green Assembly Template. It has the part number **TD-OCSE-D-AT** printed on it.
- Note the orientation of the board. The standoffs will be installed on the side that has **THIS SIDE FACES DOWN** printed on it.
- Locate three **M2.5 × 10 mm female standoffs**.
- Secure each standoff using one **M2.5 × 6 mm pan head machine screw** in each of the three locations shown.
- Flip over the completed Assembly Template. It is now ready to be used.


Step 2 — Place the Main Board components



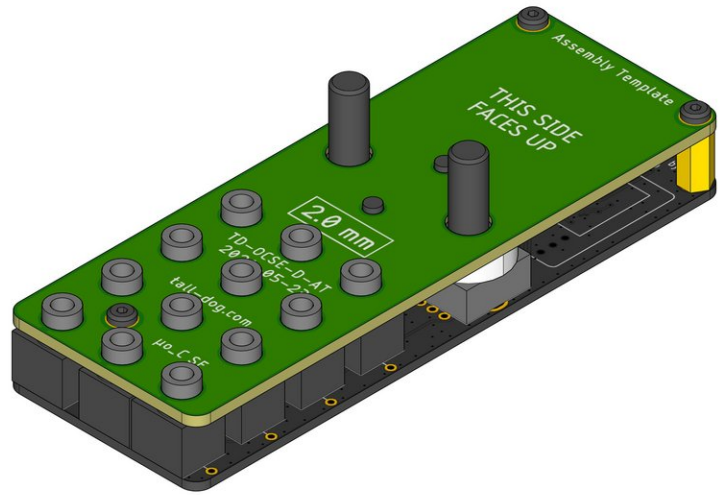
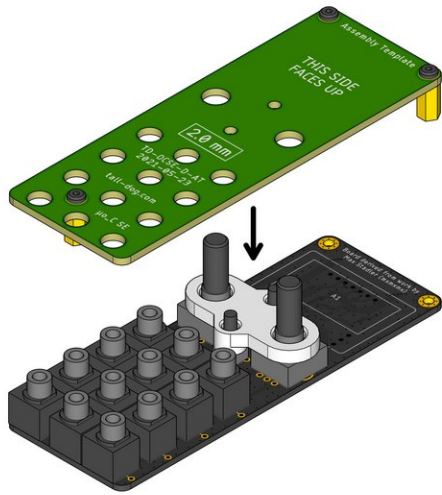
- Identify the Main Board assembly. It has part number **TD-OCSE-D2-MB** printed on its bottom side.
- ⚠ The Main Board should have all **surface-mount** soldering completed before continuing this process.
- ⓘ For ease of access to the solder pads, it is highly recommended to solder through-hole component **H5** before continuing this process.
- ⚠ Do not solder any of the following components yet.
 - Place components **S1** and **S4**.
 - Place components **S2** and **S3**.
 - Place components **J1-12**.
 - ⓘ Note that four pairs of these components each share a common hole for their grounding pins.

Step 3 — Place the Assembly Spacer



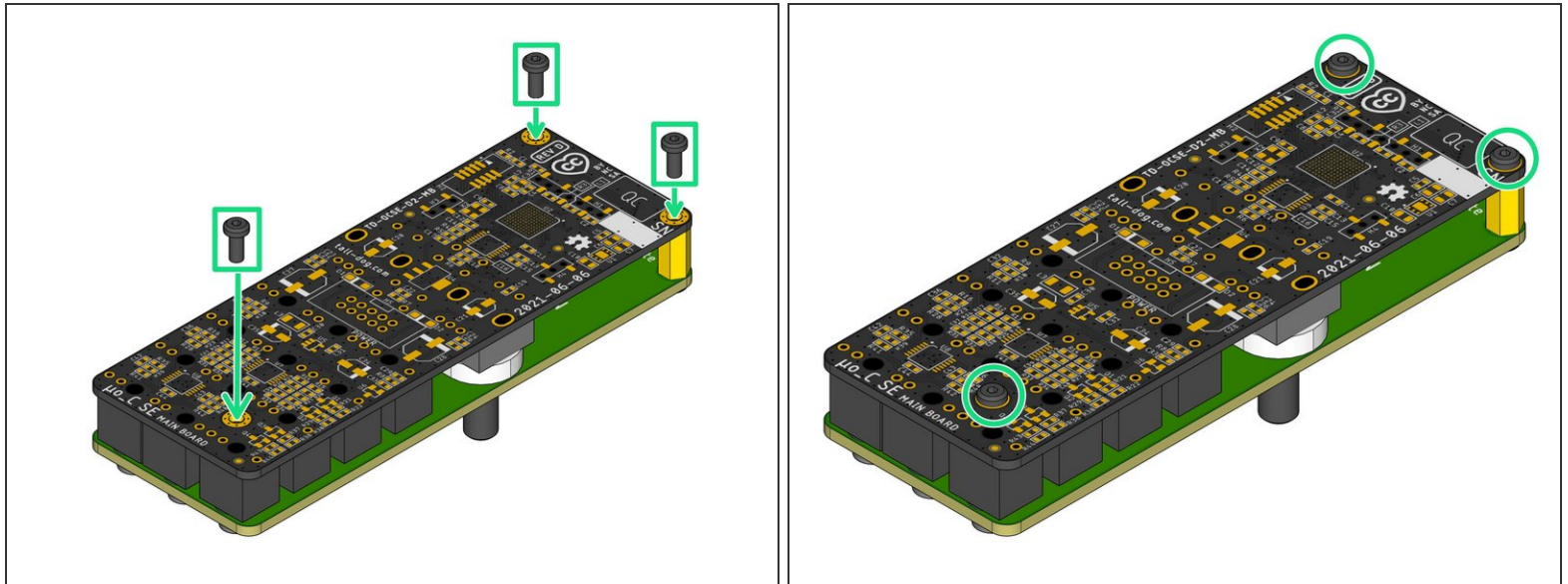
- Locate the white plastic Assembly Spacer part.
-  Make sure that the **flat side** of the Assembly Spacer is **facing up** when orienting it relative to the Main Board.
- Position the Assembly Spacer above the four components **S1-4** and slide it down onto them.
- The Assembly Spacer should rest on top of the four components with **no gaps**. All four component shafts should be extending upwards **through** the Assembly Spacer as shown.

Step 4 — Place the Assembly Template



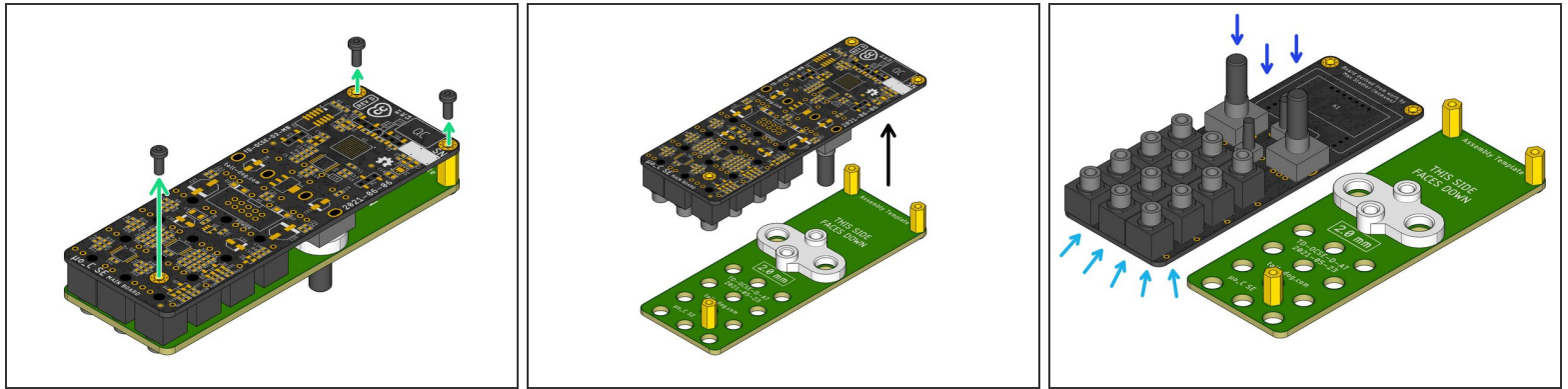
- Position the prepared Assembly Template above the Main Board as shown.
- Gently slide the Assembly Template down over all the loose components and the Assembly Spacer.
- ⓘ The Assembly Template may have to be gently wiggled in order to ensure that it is **fully seated** on all of the components underneath it. Each of the metal standoffs should sit **flush** against the top surface of the Main Board below.
- Verify that all components are **seated correctly** and are **sticking out** through the top surface of the Assembly Template as shown.

Step 5 — Secure the Assembly Template and solder



- Grip the pair of boards and **flip them over** while applying slight pressure, holding them together so that none of the components become unseated.
- Locate and fasten three **M2.5 × 6 mm pan head machine screws** to secure the Assembly Template to the Main Board, sandwiching all of the loose components and the Assembly Spacer solidly in-between them.
- Now **solder all of the loose through-hole components** in place. There are a total of 16 components with 58 solder joints.

Step 6 — Remove the Assembly Template and Spacer



- Remove the three **M2.5 × 6 mm pan head machine screws** from the Main Board side of the assembly and put them aside for the next iteration.
- Gently lift the Main Board away from the Assembly Template and the Assembly Spacer. They should both slide off easily without applying much force.
- Inspect the Main Board assembly and verify that both of the following statements are **true**:
 - There are **no gaps** between the plastic bases of components **J1-12** and the top surface of the Main Board.
 - The shafts of components **S1-4** rise **perpendicularly** (at a 90° angle) compared to the top surface of the Main Board.
- This completes the process.
- ⓘ Leave the three standoffs attached to the Assembly Template and skip Step 1 on the next iteration of this process.