Adjusting the Form 2 Tank Spring Fingers

formlabs

Required supplies:

- Finish Kit tweezers
- 2 mm or larger flathead screwdriver
- PEC*PADs

Follow this guide to adjust the tank spring fingers on the tank carrier and to improve resin tank detection for both standard resin tanks and Resin Tanks (LT).

Estimated time: 20 minutes

The tank spring fingers, located on the tank carrier, read the resin tank ID chip on the underside of the tank to detect the tank and to identify the resin type. Issues with the tank spring fingers may prevent the Form 2 from detecting resin tanks consistently.

NOTICE: Adjusting the spring fingers is a delicate procedure. Follow the directions carefully to avoid critical damage to the printer, which may require returning the printer for repairs.

If the spring fingers do not match the photo, send a photo of the spring fingers to Formlabs Support or your authorized reseller before any adjustments.
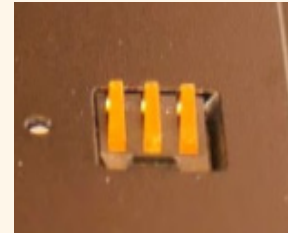
Preparing the workspace

OVERVIEW: Prepare the Form 2 and a dust-free workspace for adjusting the spring fingers.

STEP 1: REMOVE THE BUILD PLATFORM
Remove the build platform first to avoid dripping resin onto the optical window.

**STEP 2: REMOVE AND STORE THE RESIN TANK**
Remove the resin tank. Cover the resin tank with the plastic lid and set aside on a clean, flat surface.

STEP 3: MOVE THE PRINTER
Unplug the Form 2 and move it to a dust-free work area.

STEP 4: COVER THE OPTICAL WINDOW
Sharp or blunt objects, such as tweezers or a screwdriver, can damage the optical window. Cover the optical window with PEC*PADs to protect it from damage during the procedure.
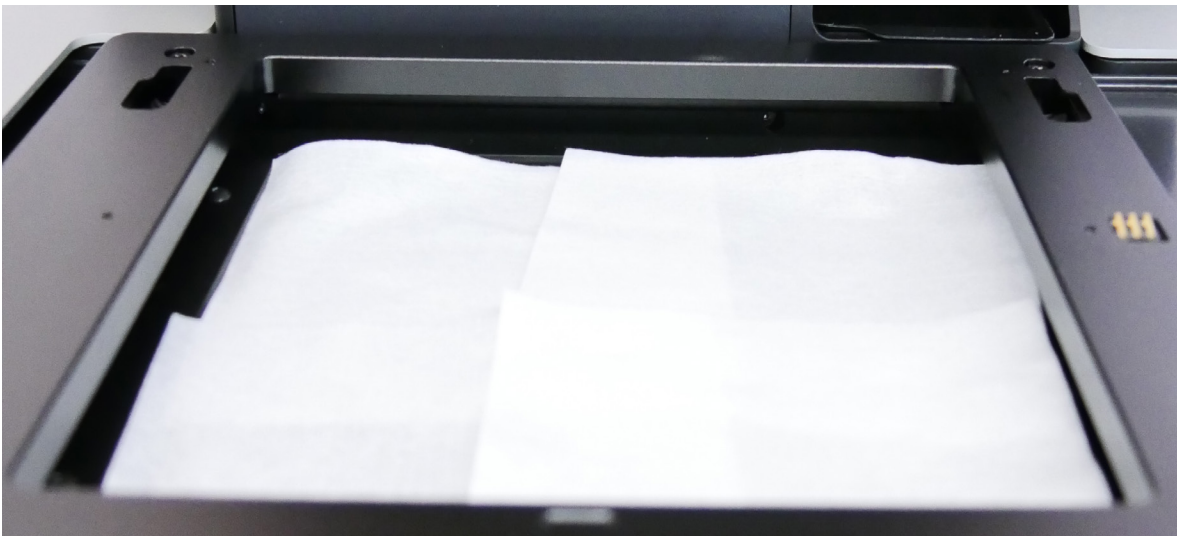
Adjusting the spring fingers

OVERVIEW: Use the tweezers and the flat tip of the slotted/standard screwdriver to modify the bend in the two rightmost spring fingers.

> **TIP:** The final position is bent so that the peak of the spring fingers is both higher and 1 mm behind the original bend.

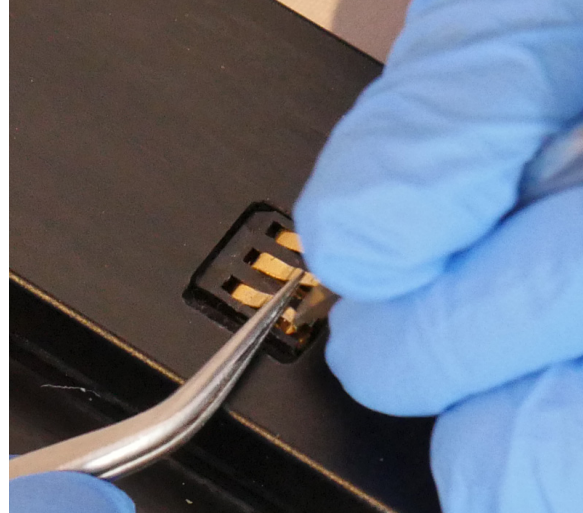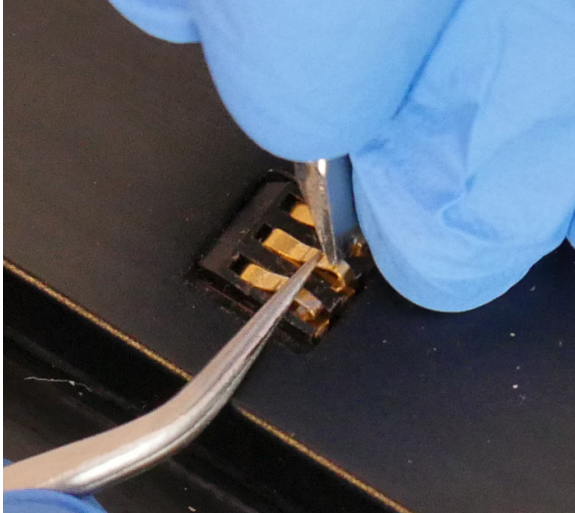**STEP 1: BEND A NEW PEAK ON THE RIGHT-SIDE SPRING FINGER**
Close the tips of the tweezers around the right-side spring finger 1 mm below the existing bend.
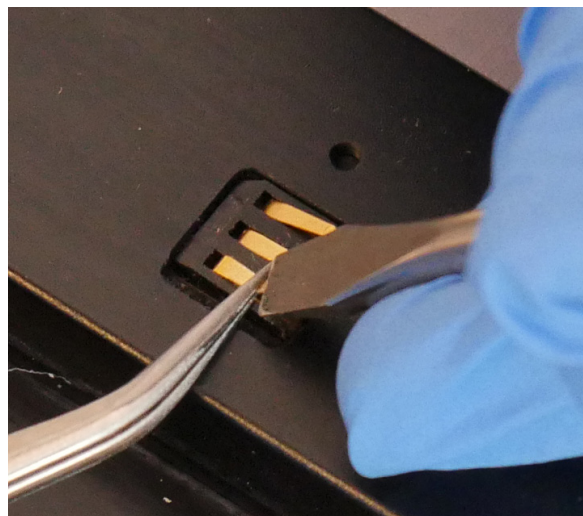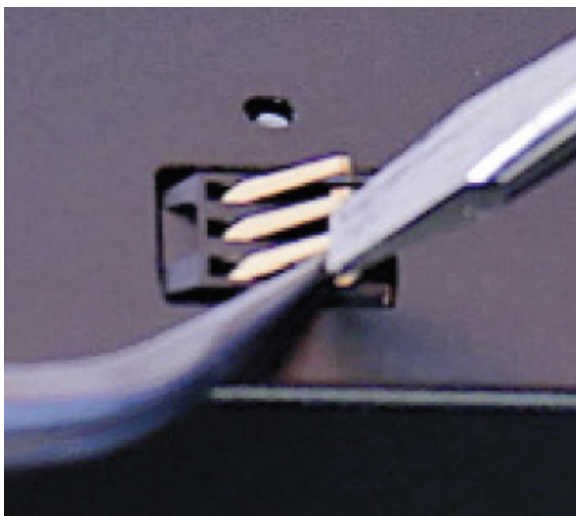
Hold the screwdriver in the other hand with the index finger near the blade. Position the screwdriver so that the flat tip rests between the existing bend and the placement of the closed tweezers.

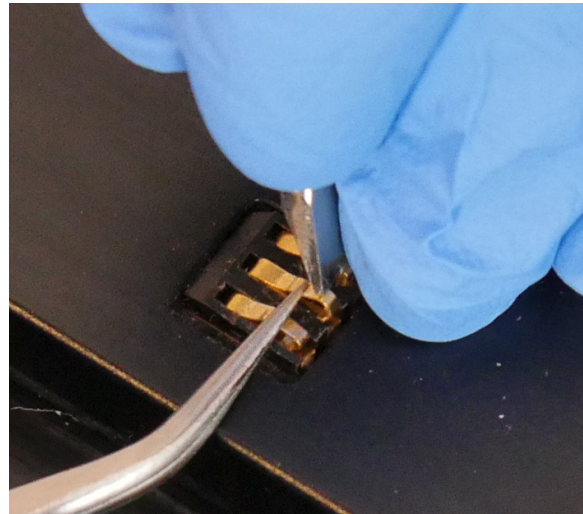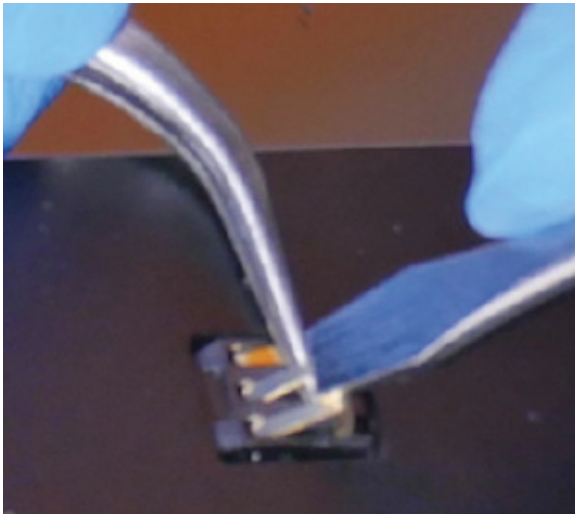Push down on the tip of the screwdriver and pull up with the closed tweezers.

> **NOTICE:** Only adjust the higher, curled end of the spring finger. Lifting the lower end at the base of the tank carrier could result in damage to the spring finger.

The new bend should be located halfway along the spring finger, approximately 1 mm below the original bend.

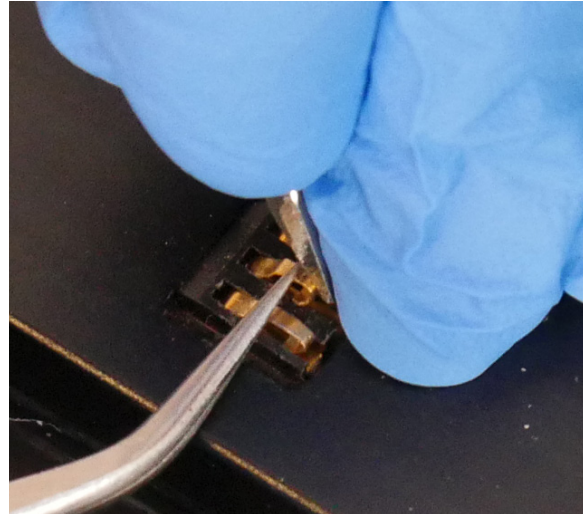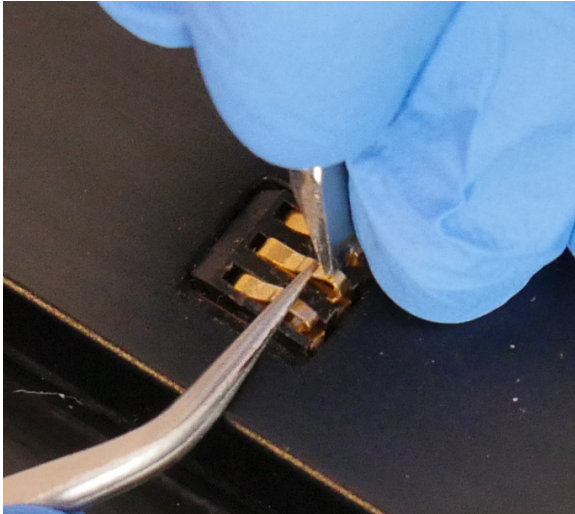**STEP 2: BEND A NEW PEAK ON THE CENTER SPRING FINGER**
Close the tips of the tweezers approximately 1 mm below the existing bend of the center spring finger by going over an outside spring finger.

Hold the screwdriver in the other hand with the index finger near the blade. Position the screwdriver so that the flat tip rests between the existing bend and the placement of the closed tweezers.

Push down on the tip of the screwdriver and pull up with the closed tweezers.

> **NOTICE:** Only adjust the higher, curled end of the spring finger. Lifting the lower end at the base of the tank carrier could result in damage to the spring finger.
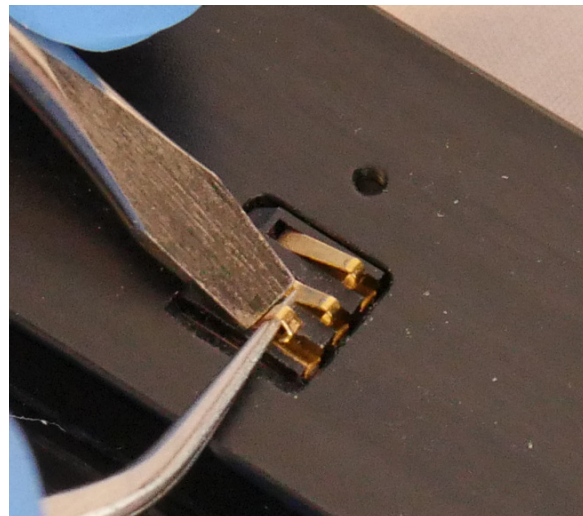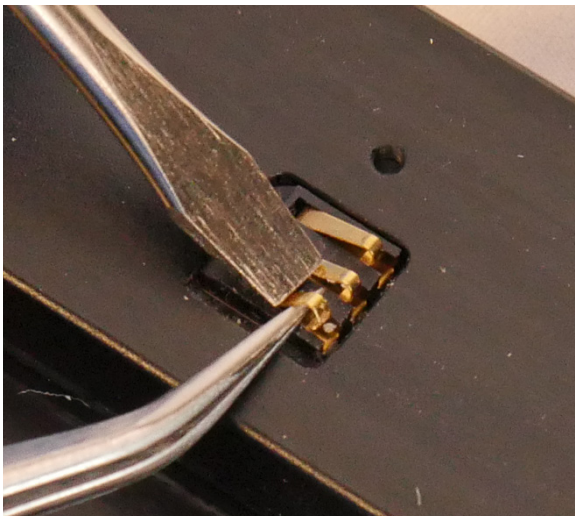

The new bend should be located halfway along the spring finger, approximately 1 mm below the original bend.

It is not necessary to bend the left-side spring finger.

STEP 3: UNSTRAIGHTEN THE RIGHT-SIDE SPRING FINGER BEFORE THE NEW PEAK
Insert the tips of the closed tweezers beneath the right-side spring finger, under the peak of the new bend.
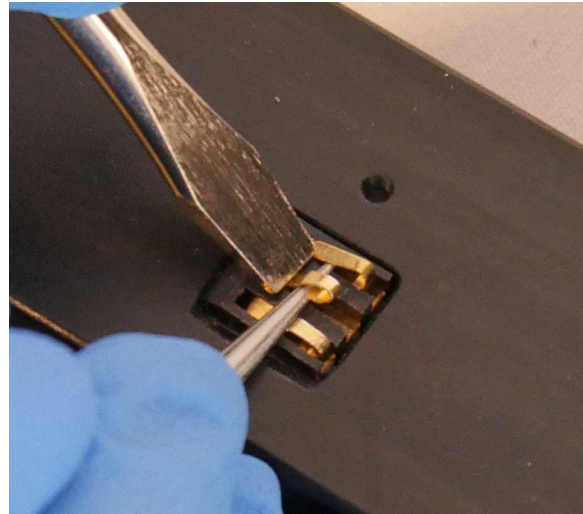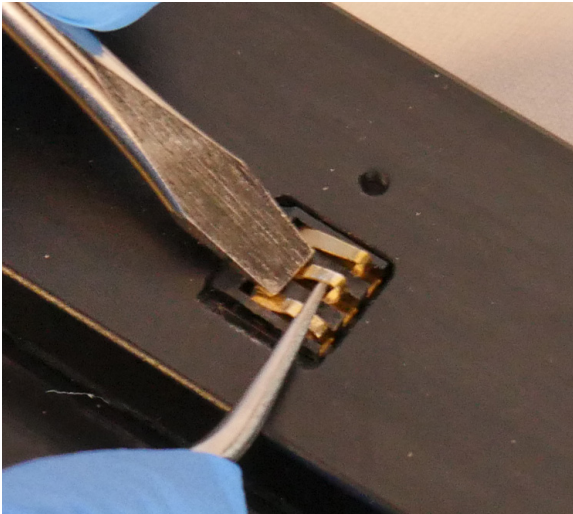

Hold the screwdriver in the other hand with the index finger near the blade. Position the screwdriver so that the flat tip rests between the placement of the closed tweezers and the base of the spring fingers.

Push down on the tip of the screwdriver and pull up with the closed tweezers.

STEP 4: UNSTRAIGHTEN THE CENTER SPRING FINGER BEFORE THE NEW PEAK
Insert the tips of the closed tweezers over an outside spring finger and beneath the center spring finger, under the peak of the new bend.

Hold the screwdriver in the other hand with the index finger near the blade. Position the screwdriver so that the flat tip rests between the placement of the closed tweezers and the base of the spring finger.

Push down on the tip of the screwdriver and pull up with the closed tweezers.

It is not necessary to bend the left-side spring finger.

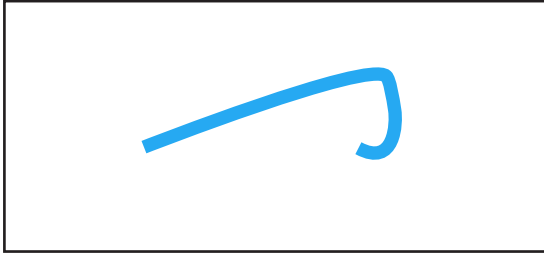**STEP 5: ADJUST SPRING FINGER HEIGHT**

If the adjusted spring fingers are lower than the left spring finger, lift the spring fingers from below with the open tip of the tweezers.
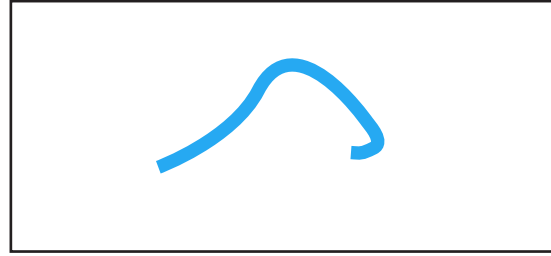
If the adjusted spring fingers are higher than the left spring finger, press down each spring finger at its midpoint with the closed tip of the tweezers.
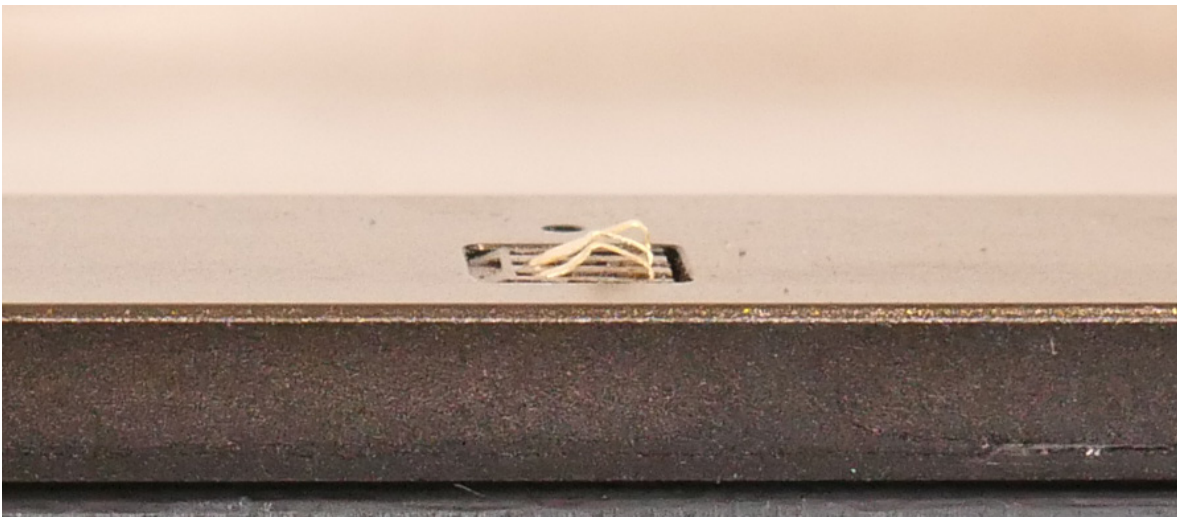
BEFORE

AFTER

STEP 6: CHECK THE FINAL ADJUSTMENT

Check the final adjustment of the two rightmost spring fingers. The new bend curves upward from the base and peaks at the midpoint.

STEP 7: CHECK THE RESIN TANK ID CHIP

With the printer still unplugged, insert and remove a resin tank a few times. This adjustment should improve tank detection for standard resin tanks and Resin Tanks (LT).
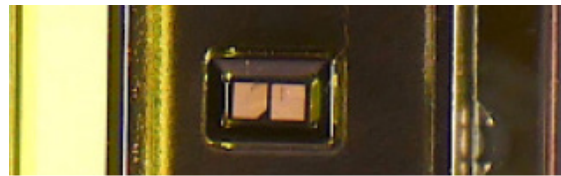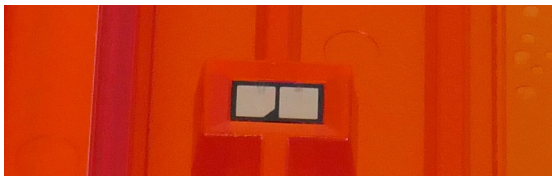
Check the resin tank ID chip on the underside of the tank for spring finger contact marks on each side of the chip. Spring finger contact marks look like lines across the surface of the ID chips.

Finish

To complete the procedure, plug in the Form 2 and check for consistent resin tank detection with both standard resin tanks and Resin Tanks (LT).

If adjusting the tank spring fingers does not resolve tank detection issues, contact Formlabs Support or your authorized reseller for additional assistance.