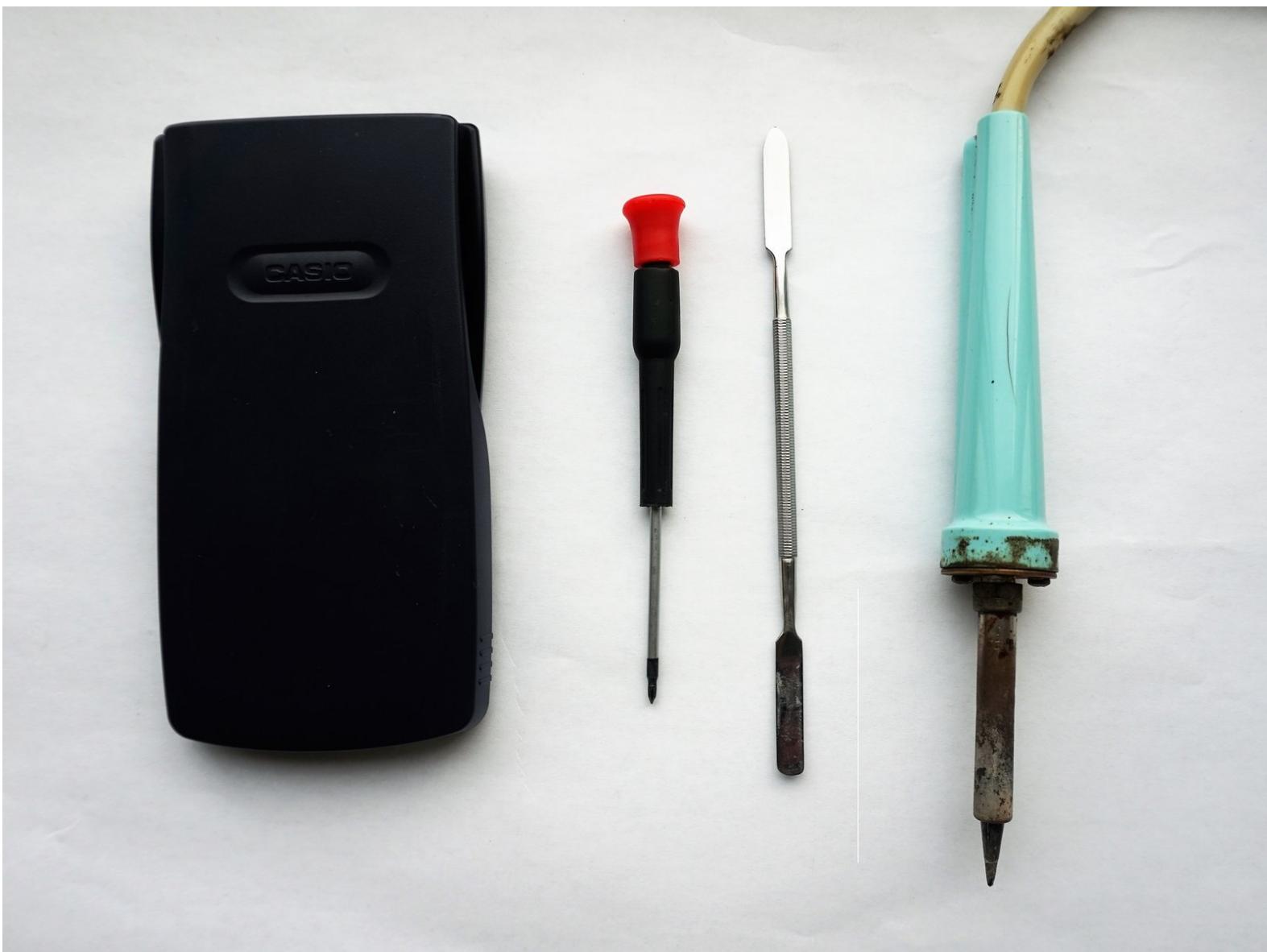




# Casio fx-82MS Button Replacement

This guide will explain step by step how to replace a malfunctioning button on the Casio fx-82MS.

Written By: Rebecca Dowling



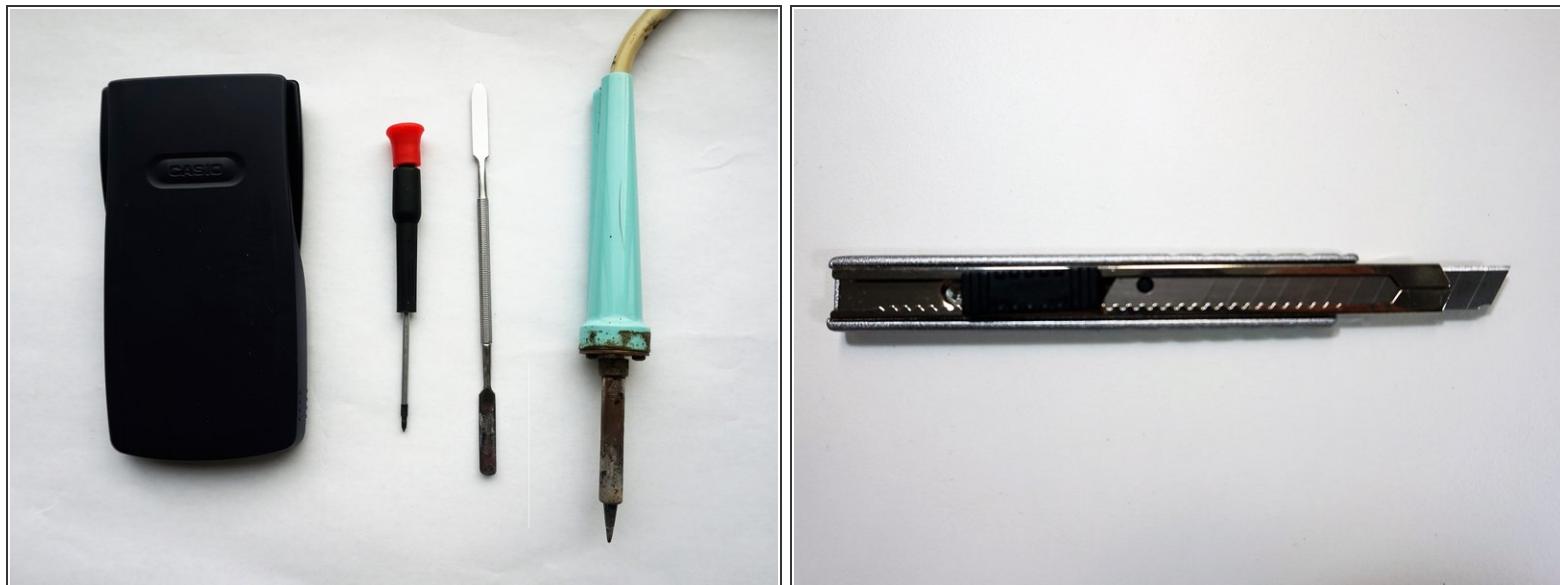
## INTRODUCTION

The Casio fx-82MS is a commonly used simple calculator in many schools. It has a very long lifetime. But sometimes a button stops working, which can be very annoying. In this guide we will guide you through the steps to fix this problem.

### TOOLS:

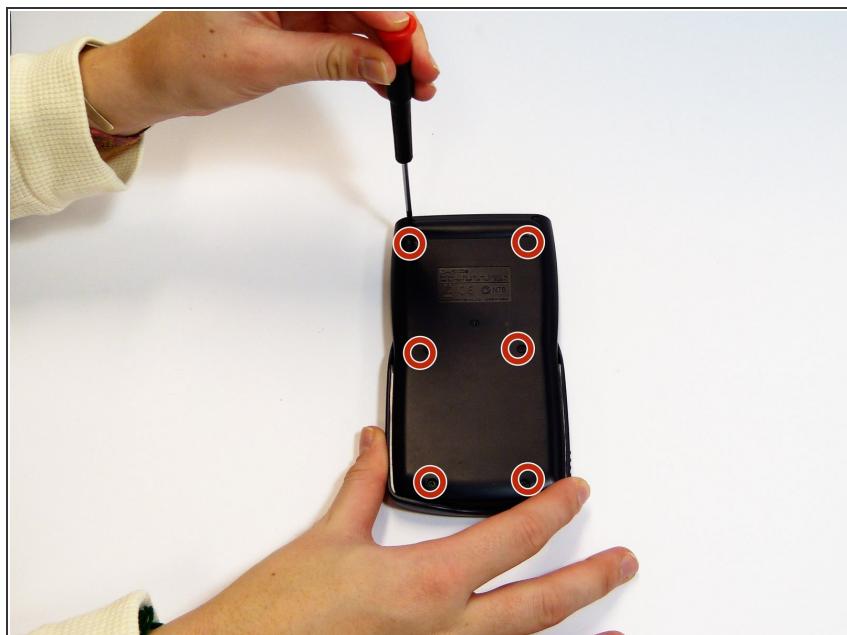
- [Phillips #00 Screwdriver](#) (1)
- [Soldering Iron](#) (1)
- [Spudger](#) (1)
- [Utility Knife](#) (1)

## Step 1 — Button



- This is the calculator in question.
- The tools you will need are: a Phillips screwdriver, a spudger and a soldering iron.
- *(i)* If you don't have access to a soldering iron, you need a stanley knife instead.

## Step 2



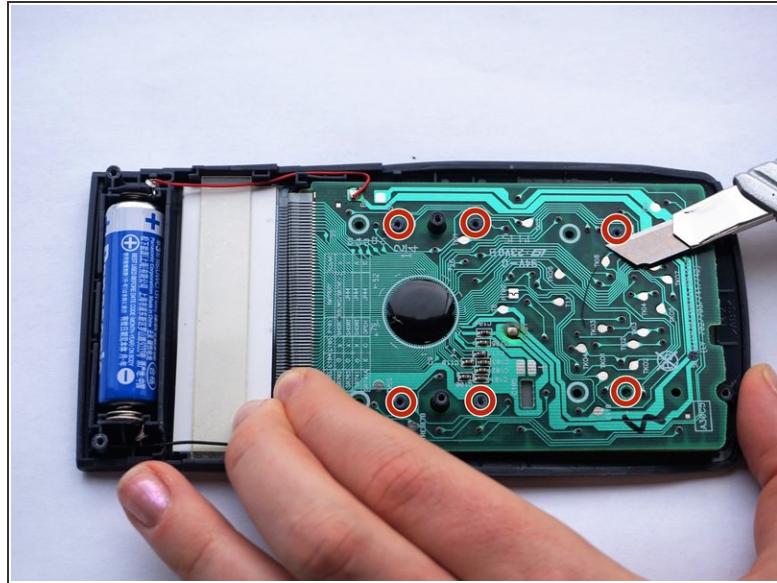
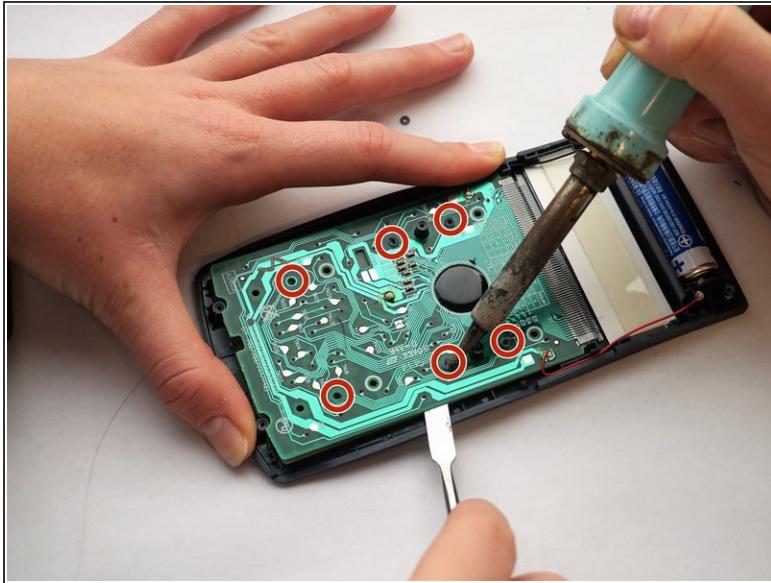
- Flip over the calculator.
- Locate the 6 screws on the backside.
- Remove all six screws.

## Step 3



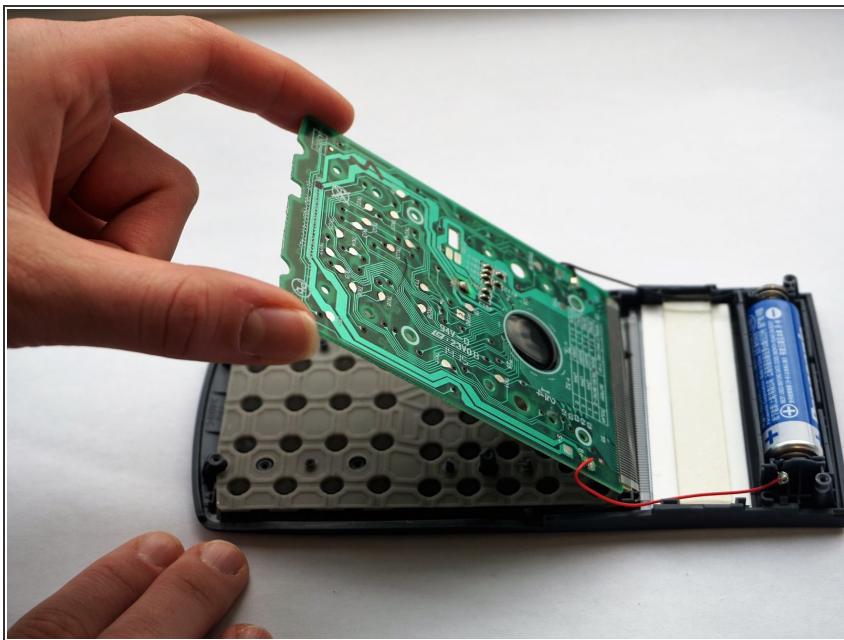
- Once all six screws have been removed, take the back part off of the calculator.

## Step 4



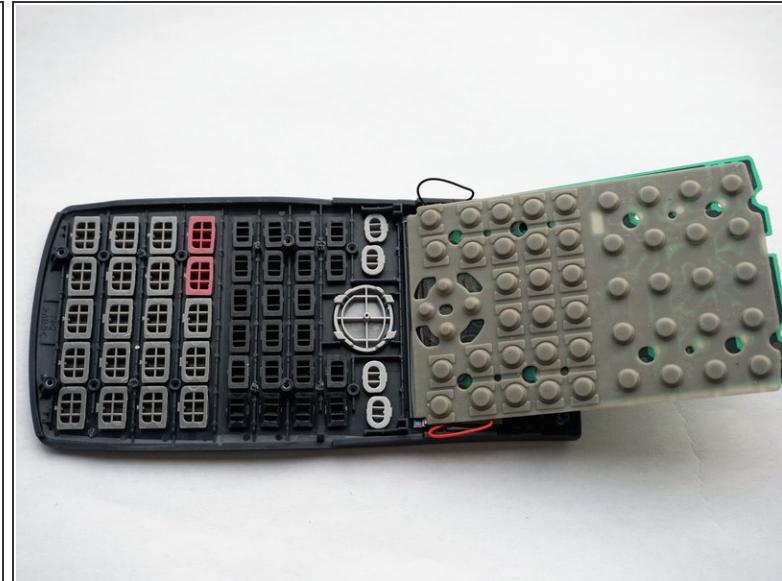
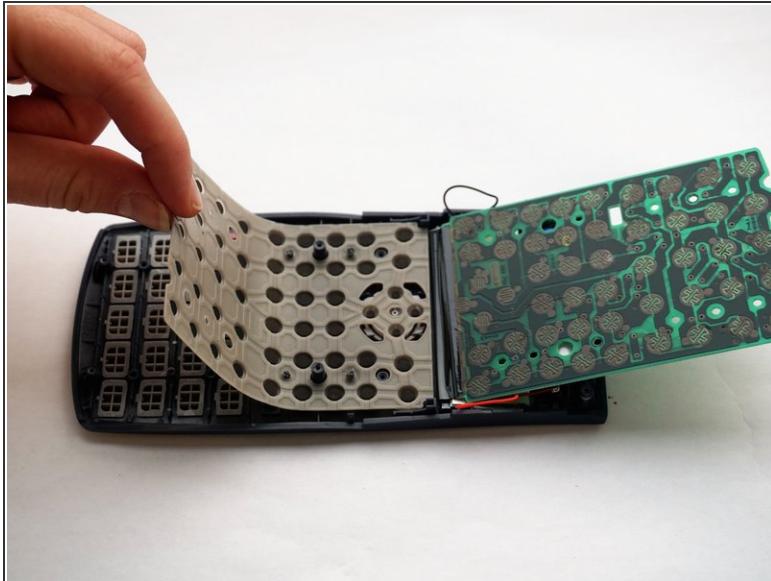
- Locate the rubber contact points.
- Solder the rubber contact points, while using the spudger to pry the PCB loose.  
*ⓘ* PCB stands for Printed Circuit Board.
- ⚠** Toxic gasses might be created. Hence, do this in a well ventilated room.
- Start with the lower plugs (left on the photo). Gently pry the PCB loose at the same time.  
**⚠** For this step a third person is required for safety. One person uses the solder iron, the other one uses the spudger to pry the PCB loose.
- If you don't have accessibility to a solder iron, use a utility knife to remove the plugs.

## Step 5



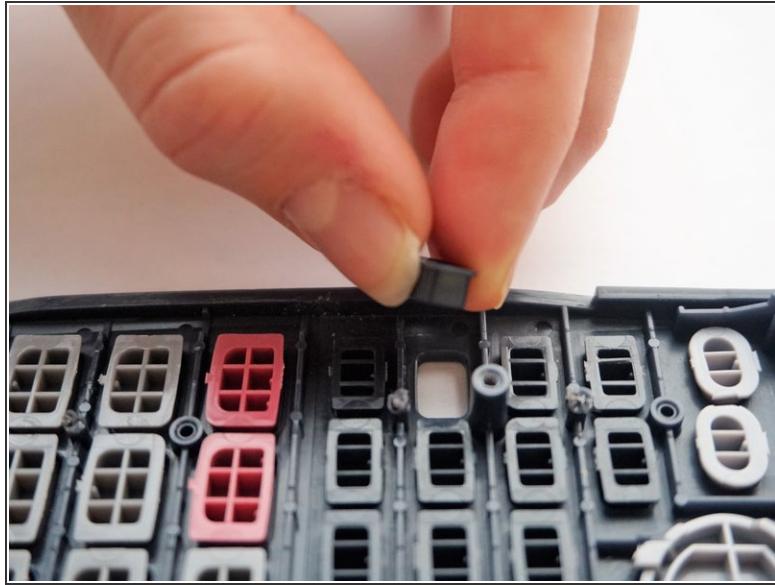
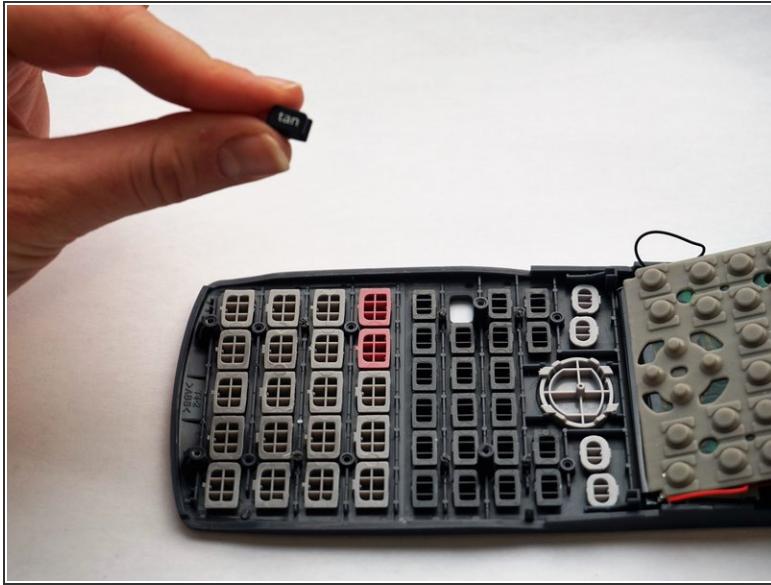
- After having soldered away all six plugs, lift up the PCB.
- ⚠** Flip the board sideways as shown in the picture.

## Step 6



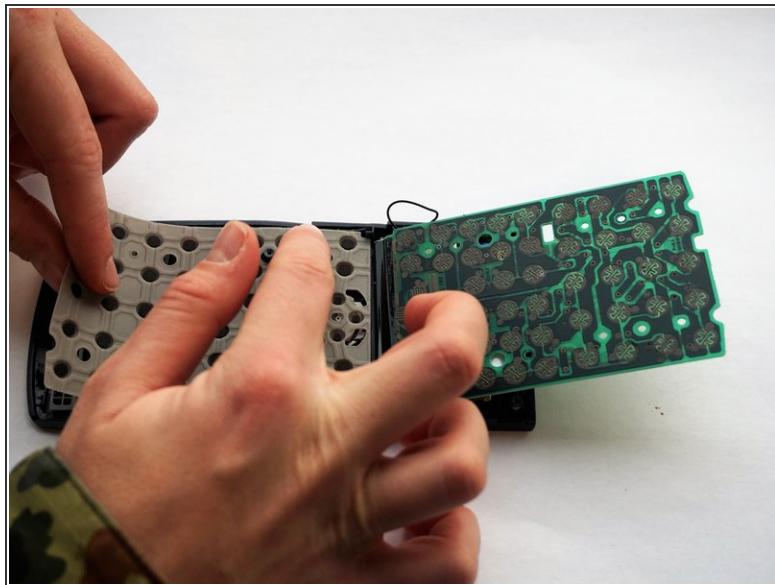
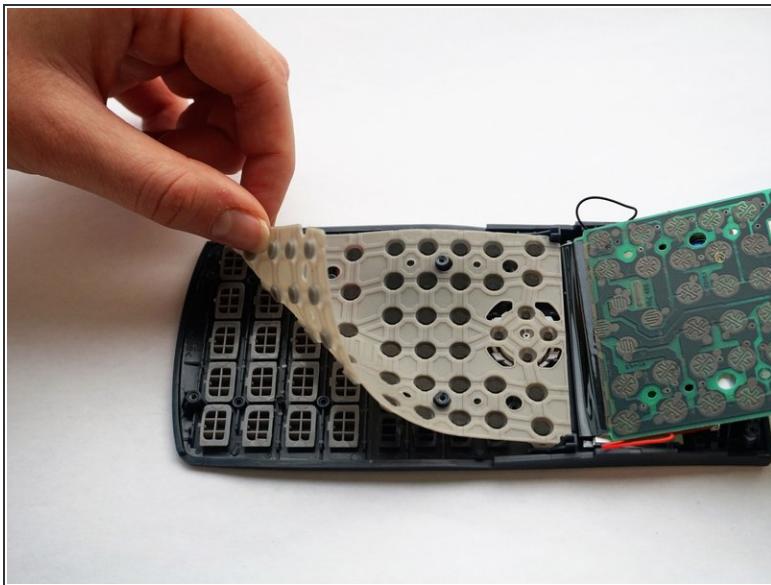
- Remove the rubber mat.
- ⚠** Do this carefully, to make sure the buttons stay in their place.

## Step 7



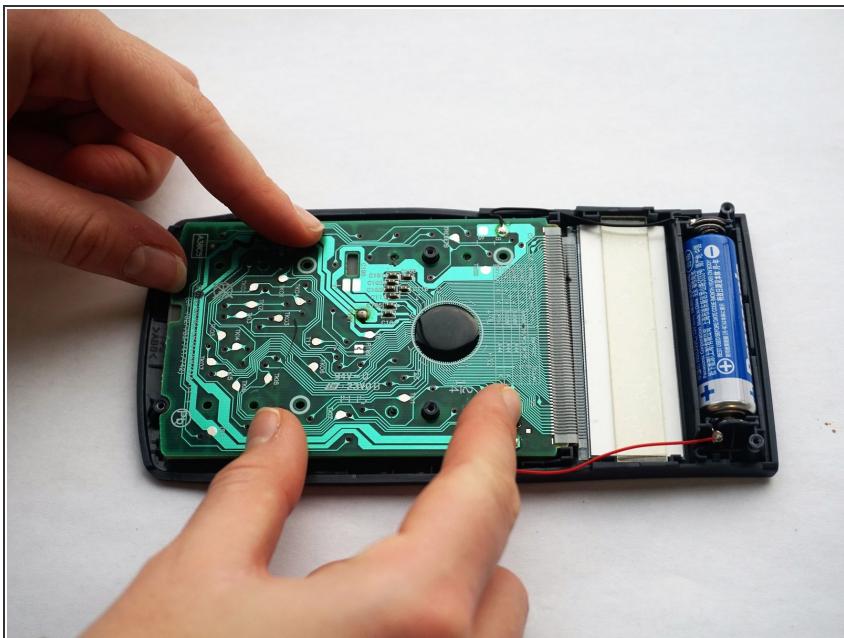
- Replace the broken button.

## Step 8



- Put the rubber mat back in its place.
- Make sure you push the six slightly damaged plugs through the rubber mat.

## Step 9



- Push the PCB back into place.
- *(i)* Again make sure you push the slightly damaged plugs through the PCB, to make everything fits perfectly again.

## Step 10



- Place the back side of the casing back on top of the front.

## Step 11



- Put all six screws back in the back side of the casing.