



# Motorola Moto Z Repairability Assessment

Lenovo Moto Z repairability assessment performed on January 4, 2017.

Written By: Andrew Optimus Goldheart



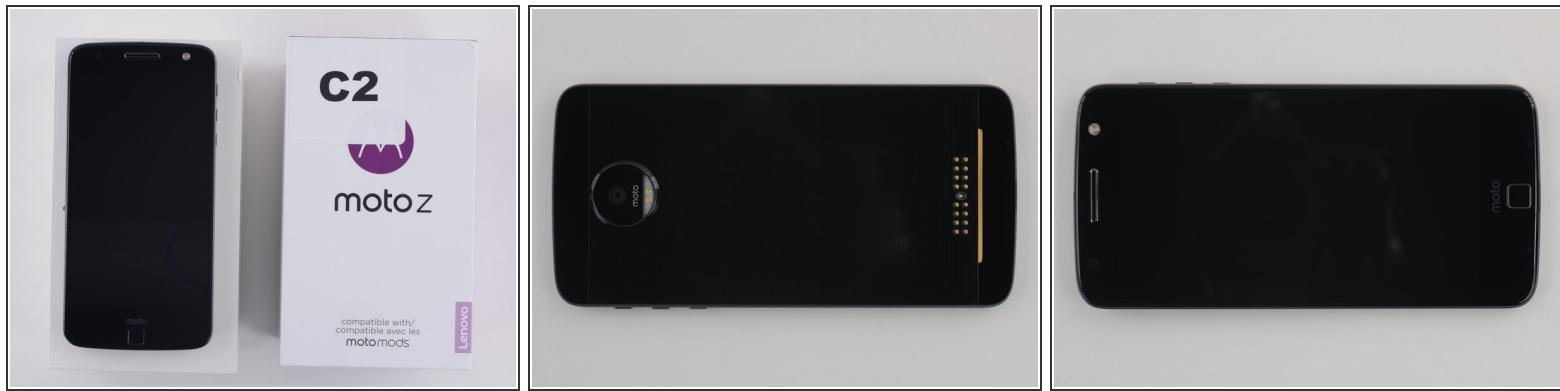
## INTRODUCTION

The modularity and easy to remove battery found in the Lenovo Moto Z earns it a 7 out of 10 on the repairability scale.

### TOOLS:

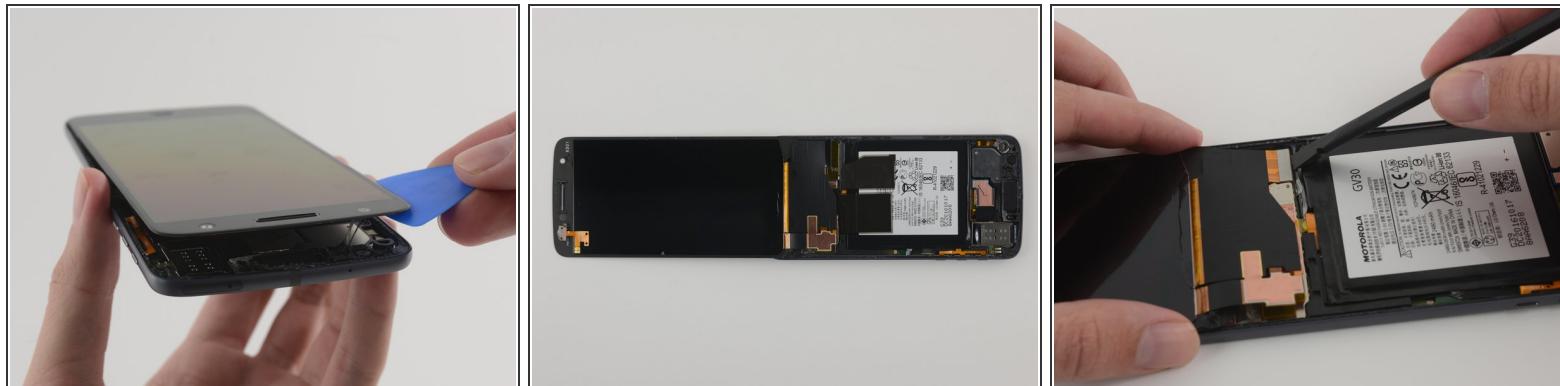
- [iOpener](#) (1)
- [T3 Torx Screwdriver](#) (1)
- [iSclack](#) (1)
- [Spudger](#) (1)
- [Tweezers](#) (1)
- [iFixit Opening Picks set of 6](#) (1)

## Step 1 — Reference front/back



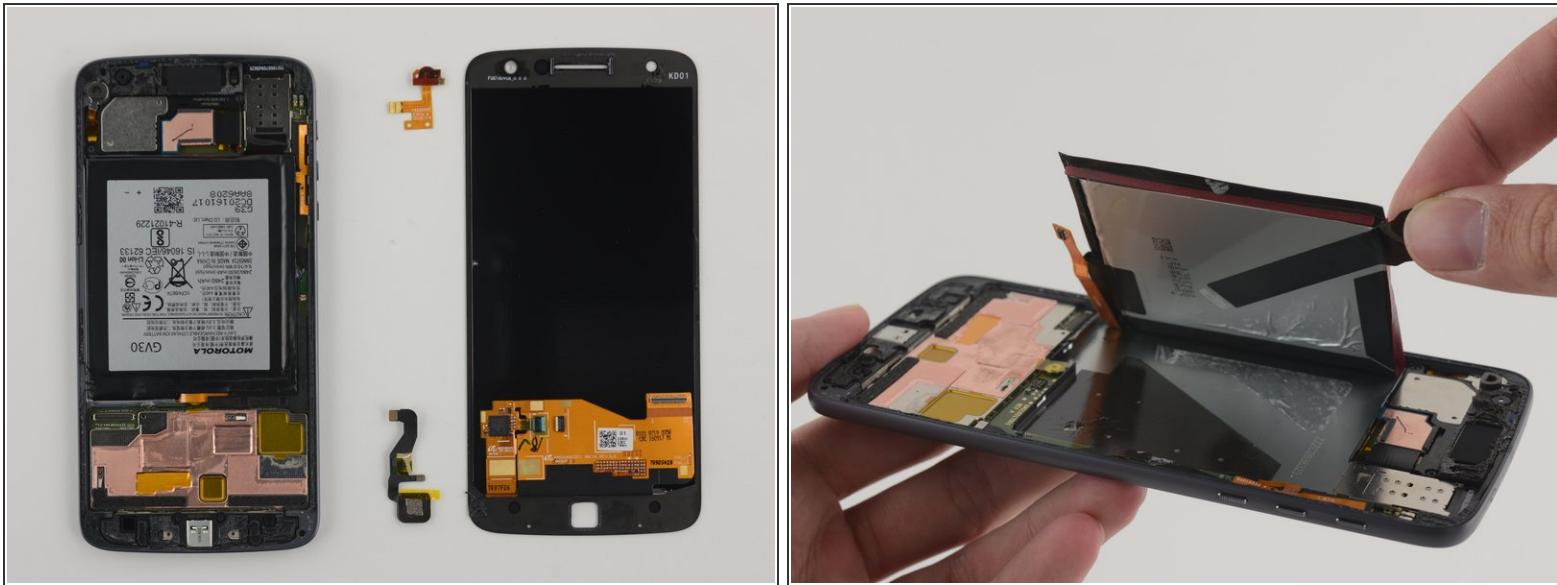
- External expansion is possible with magnetically attached "Moto Mods." Easily swapped external battery packs may increase life of device.

## Step 2



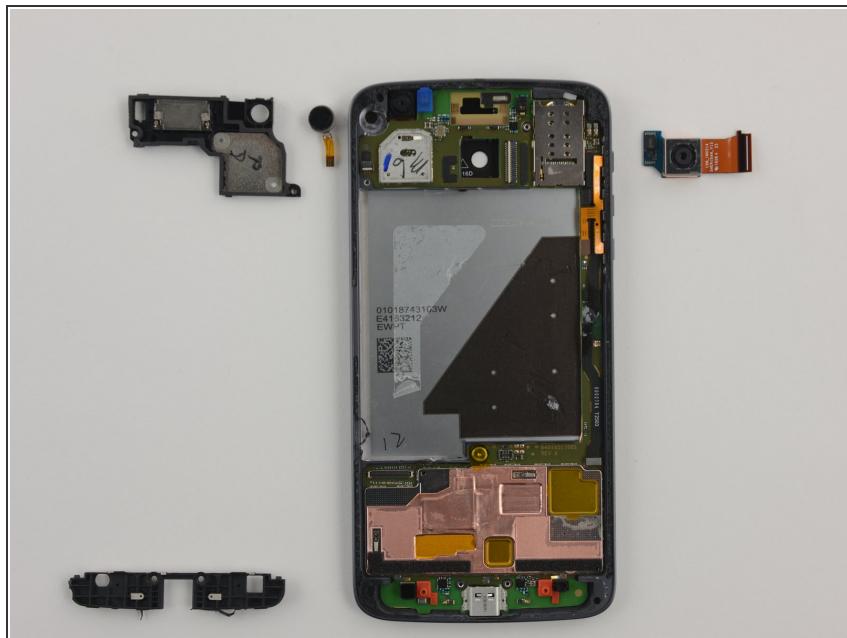
- Sticky adhesive holds the display in place. Heat is required to soften the adhesive enough to pry up the display.
  - This adhesive is similar to adhesive found in waterproof devices like the iPhone 6s/7. This device is splashproof, not waterproof.
- The display cable is long enough to allow you to fold the display over completely, so you don't have to support it while disconnecting.
  - However, it is very wide and hinders access to the battery connector—it's considerably easier to disconnect the battery after the screen is removed, which is not best practice.

## Step 3



- The fingerprint sensor button and ambient light sensor are held onto the back of the display assembly with strong adhesive.
  - Heat was not needed, and both components can be easily reinstalled.
- i** To test the most common repair, we remove the battery before proceeding.
- Battery has a plastic tab to aid in removal. The angle helps avoid ripping the tab off before it's free from the adhesive in the lower right corner.

## Step 4



- Vibrator and rear-facing camera are lightly adhered in place and can be removed now, (or before the battery is removed).
- Earpiece speaker assembly and lower bracket are held in place with Torx T3 screws and serve to hold down the top and bottom halves of the motherboard.

## Step 5



- Removing the adhered motherboard
  - Motherboard as a single component is an expensive repair, especially with the commonly failing charging port soldered on.
- With the motherboard removed, the next layer of components can come out, including: front-facing camera, camera cover/LED flash assembly, heat pipe, button covers and switch ribbon cable.

## Step 6



- The Lenovo Moto Z earns a **7 out of 10** on our repairability scale (10 is the easiest to repair):
  - Pull-tab on battery, easy to access once you have the device open.
  - Modular assembly allows independent replacement of many components
  - Display is adhered in place with no external fasteners, but the adhesive is weak enough to easily separate after heating.
  - Charging port soldered to the motherboard means a common repair will be very expensive.
  - Manufacturer does not provide user-accessible repair documentation.