

LG Chocolate Flip Dissection

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IAT 336: Lab 2



Parts List

Front:

- 1.0 front plate cover
- 1.1 volume and option buttons
- 1.2 front screws (4)
- 1.3 front plate mount

Electronic Components:

- 1.4 screen (inner and outer)
- 1.5 vibration actuator
- 1.6 unidentified electronic component
- 1.7 speaker
- 1.8 webcam
- 1.9 circuit pad
- 1.10 adhesive covering

2. Back:

- 2.0 back plate cover
- 2.1 back screws (6)
- 2.2 inner screws (2)
- 2.3 base support lattice
- 2.4 button sticker covering
- 2.5 back plate mount

Electronic Components:

- 2.6 LG battery
- 2.7 upper circuit board
- 2.8 lower circuit board and button input

Assembly/Disassembly

- not easy to take apart (except for battery)
- screws are very tight
- all components seem to fit tightly
- screw caps hide where screws are

Overall a very sturdy device. It seems possible to take it apart without causing much damage if given the proper tools. Many of the interior components were held in with glue or conductive sticky tape. When re-assembling it may be necessary to add more glue or tape. Implies: intended for technicians only.

Design/Material Constraints:

The front and back ends of the phone could probably be snapped off with not too much effort. (felt a bit wobbly)

Because of the use of fasteners and glue the inner and outer components were very sturdy. There were also small notches and walls that helped to keep things in place. It could easily withstand being dropped.

Choice of Material:

(a) Colour:

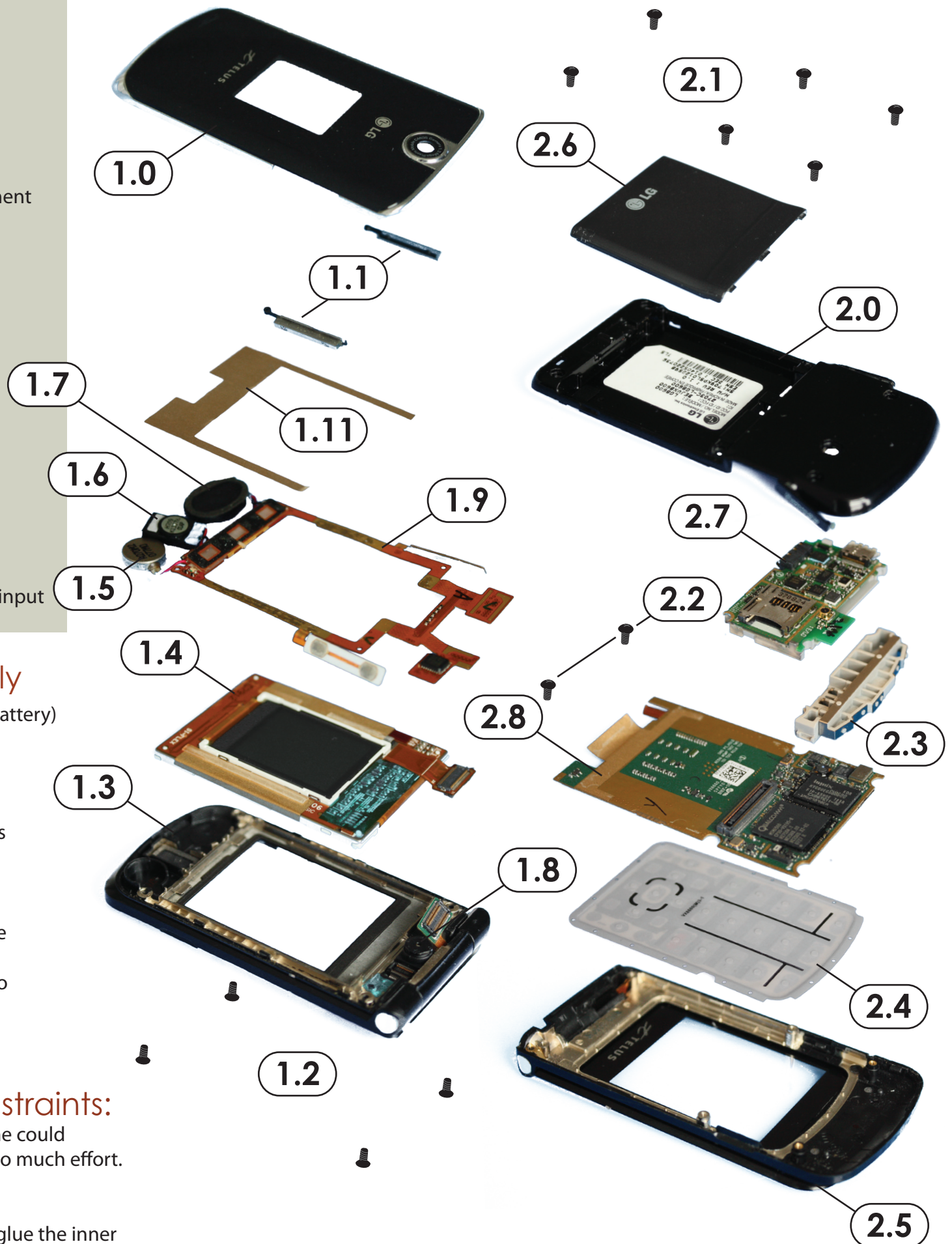
- mostly black with a silver lining around the sides; looks high end - more expensive
- Black helps promote the feeling of a slim flip phone.
- Black conceals all the seams

(b) Texture:

- smooth, glossy finish. Easy and comfortable to grip. Smooth to the touch.
- The only portions that stand out or feel different to the touch are interactive such as buttons and access ports

(c) Finish/Quality:

- inner components fit together snug and clean. No space wasted.
- the outer case fit so cleanly that at first it was unclear whether there was a seam.



Environmental Considerations:

Although much of the casing is made from plastic the glossy finish might make it difficult to recycle.

The battery displays an icon indicating not to throw it in the garbage.

There are a few individual components that could be replaced quite easily by taking off the front plate such as the speaker, camera and vibration actuator. The screen is also accessible after removing the layers of circuitry. The screen is connected without wires which makes it easier to replace.