

VEX Online Challenge - Reverse Engineering a
Blackberry 6800

Team: 54416X

Team Location: Clinton, Arkansas

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My partner and I chose to take the reverse engineering challenge, the device we chose was a Black Berry 6800. This device was chosen due to availability in the classroom, and due to the fact that we could start work as soon as possible.

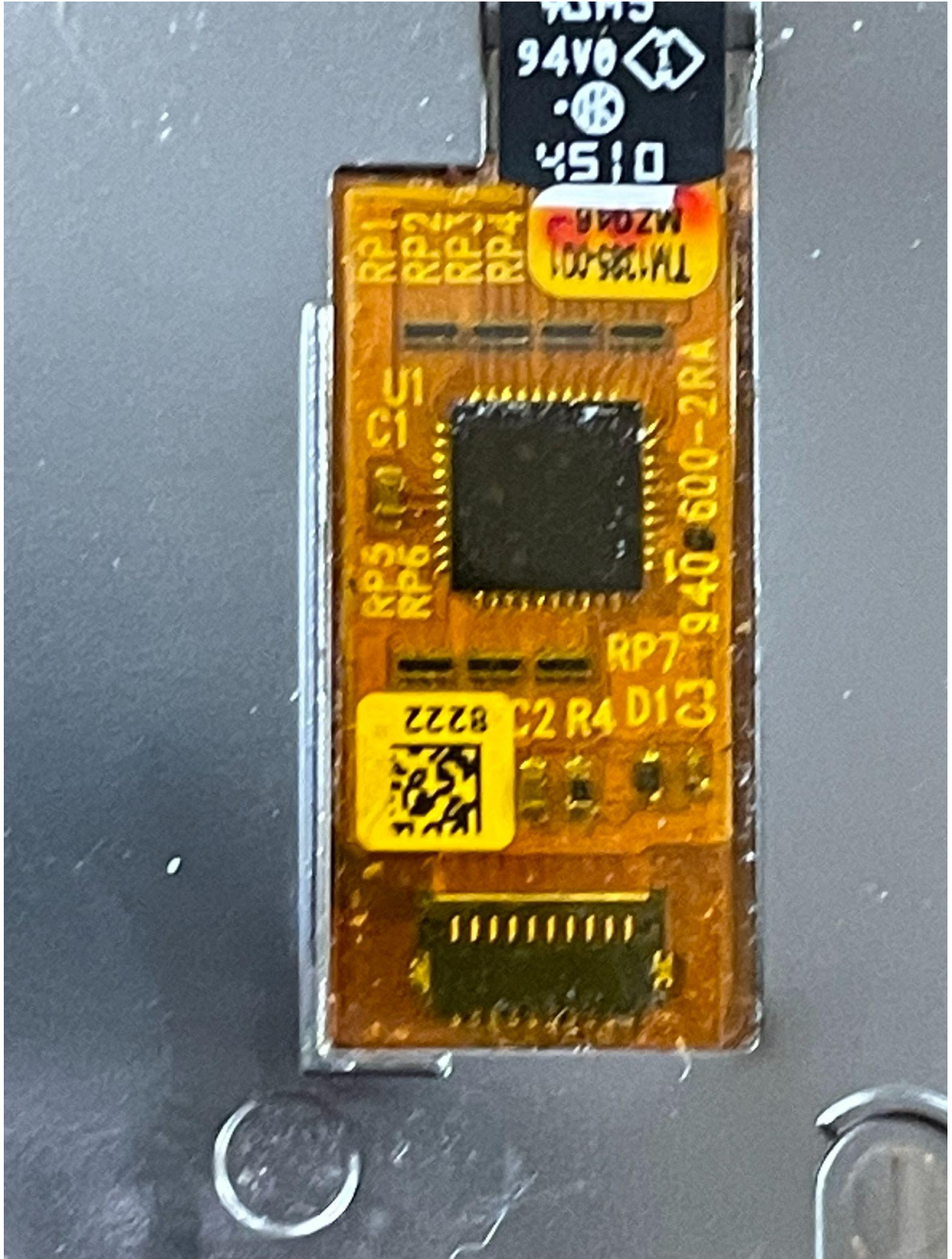
Inside of the cell phone the components that were identified were multiple switches specifically, the power switch, the volume switches, and the home button, along with the core CPU, the motherboard, the SD card port, the camera, the microphone, the led for the flash, and multiple connecting ribbon cables. The cables are used to transmit electrical signals across the phone, the camera is used to record video, and to take photos. The microphone is used to record the audio for said videos and the LED was for the flash used with a sensor we did not locate to determine the light level. The Motherboard is where all of the signals are transmitted from, and deciphered, those which are detrimental to the phones working are stored in the CPU. The SD card is used to store the data on the phone allowing for quick access and transference.

In conclusion we realized that the components of older phones are a good bit more durable than those of today, along with discovering what certain components looked like then versus now. There are differences in the wiring and how the motherboards have changed over the years not only visually, but also with the speeds at which they can process information. They have changed in size and are smaller but have increased in power due to the fact that technology has been miniaturized in the years since the release of the Blackberry 6800.

Wiring behind the touch screen.



A closeup of the CPU.



The touch screen, and the glass cover.



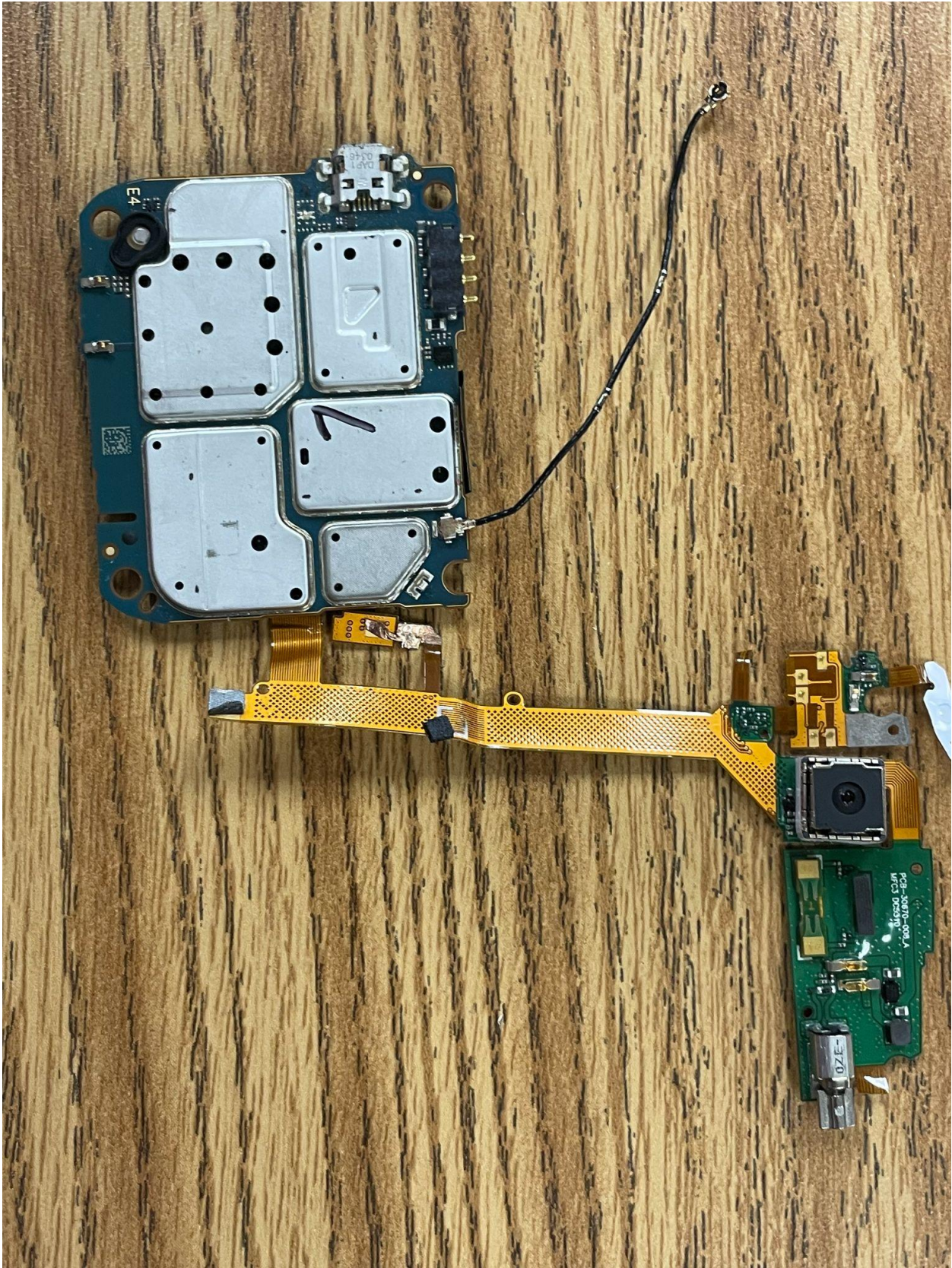
The back of the motherboard.



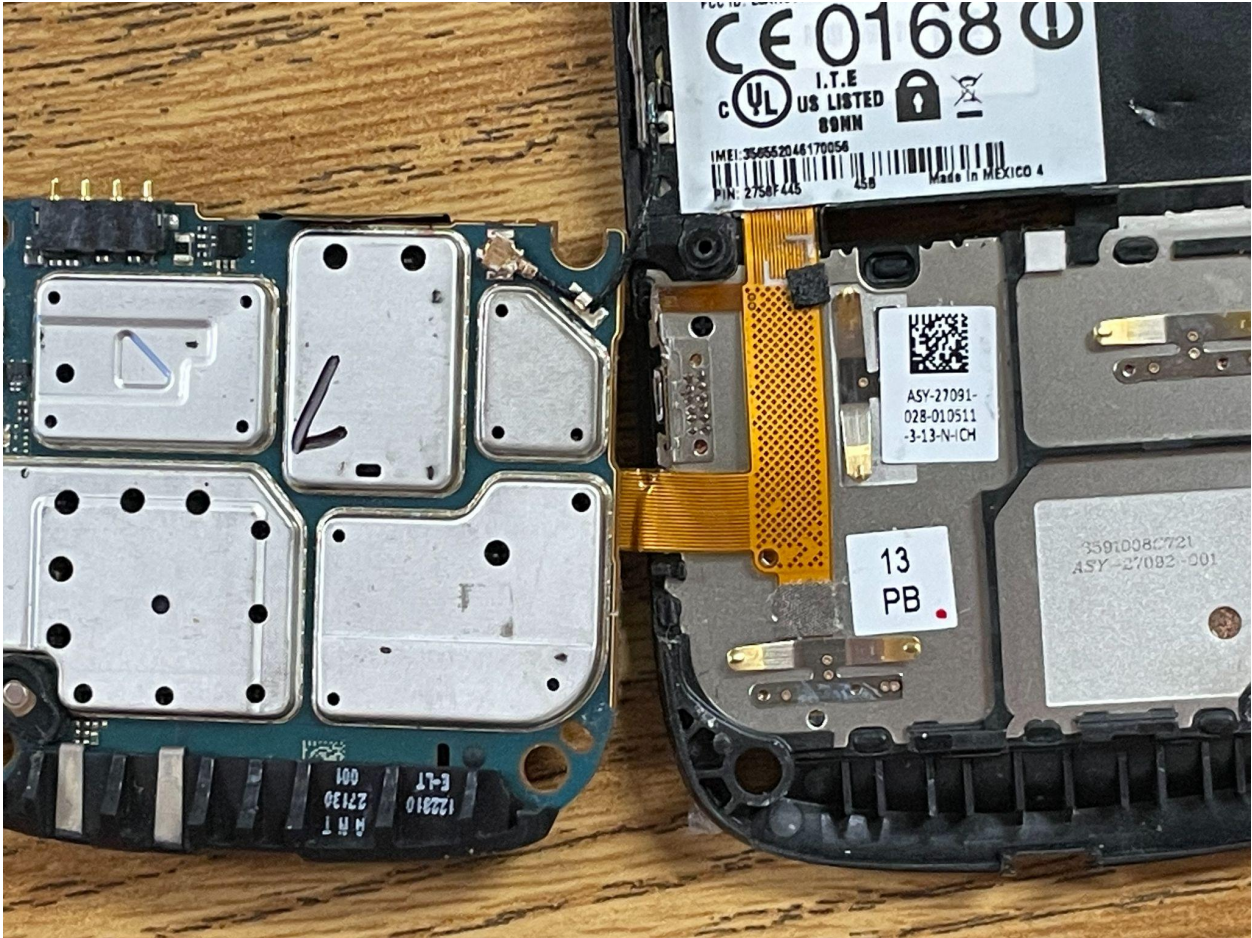
A closeup of the camera assembly.



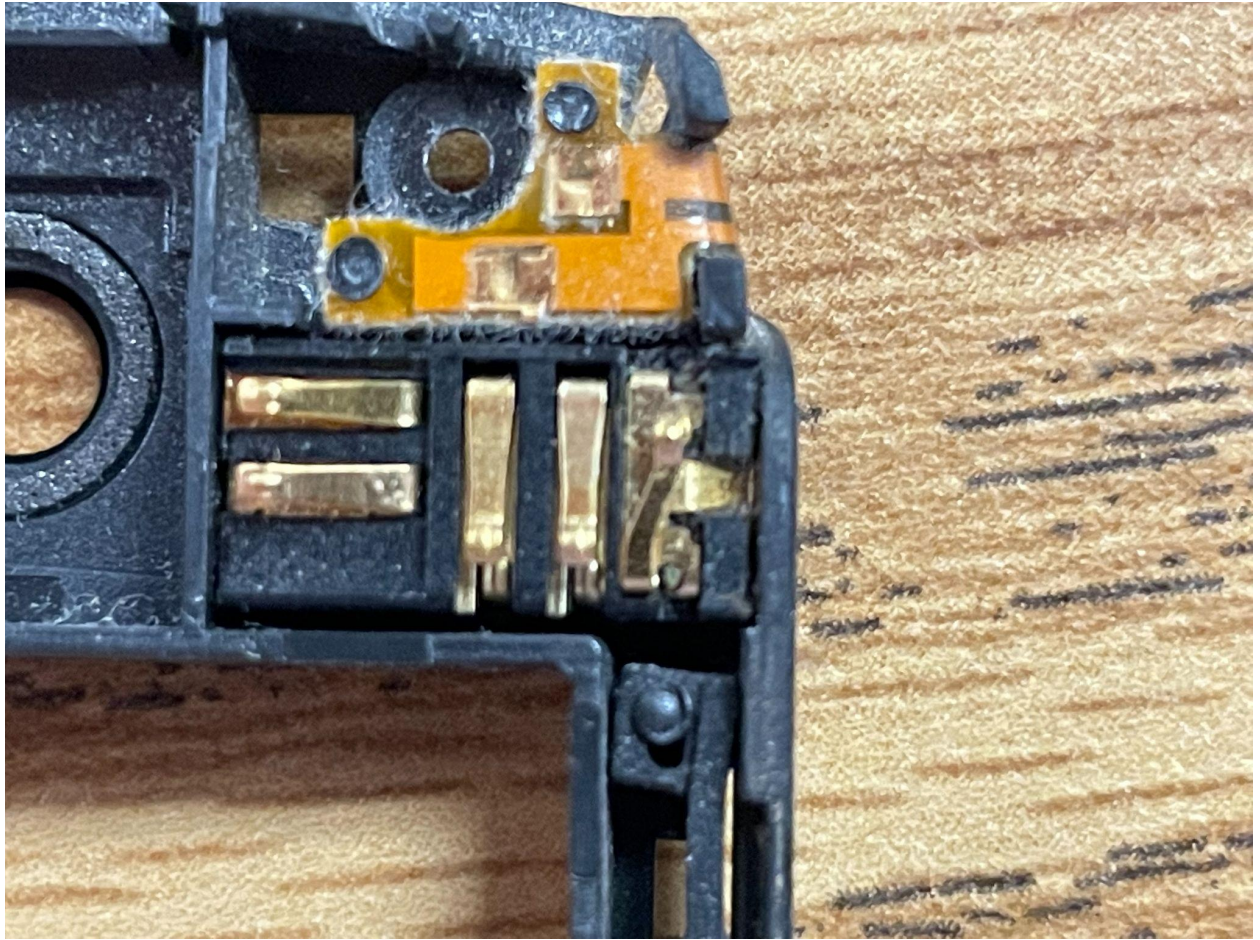
A zoomed out photo of the camera assembly still connected to the motherboard.



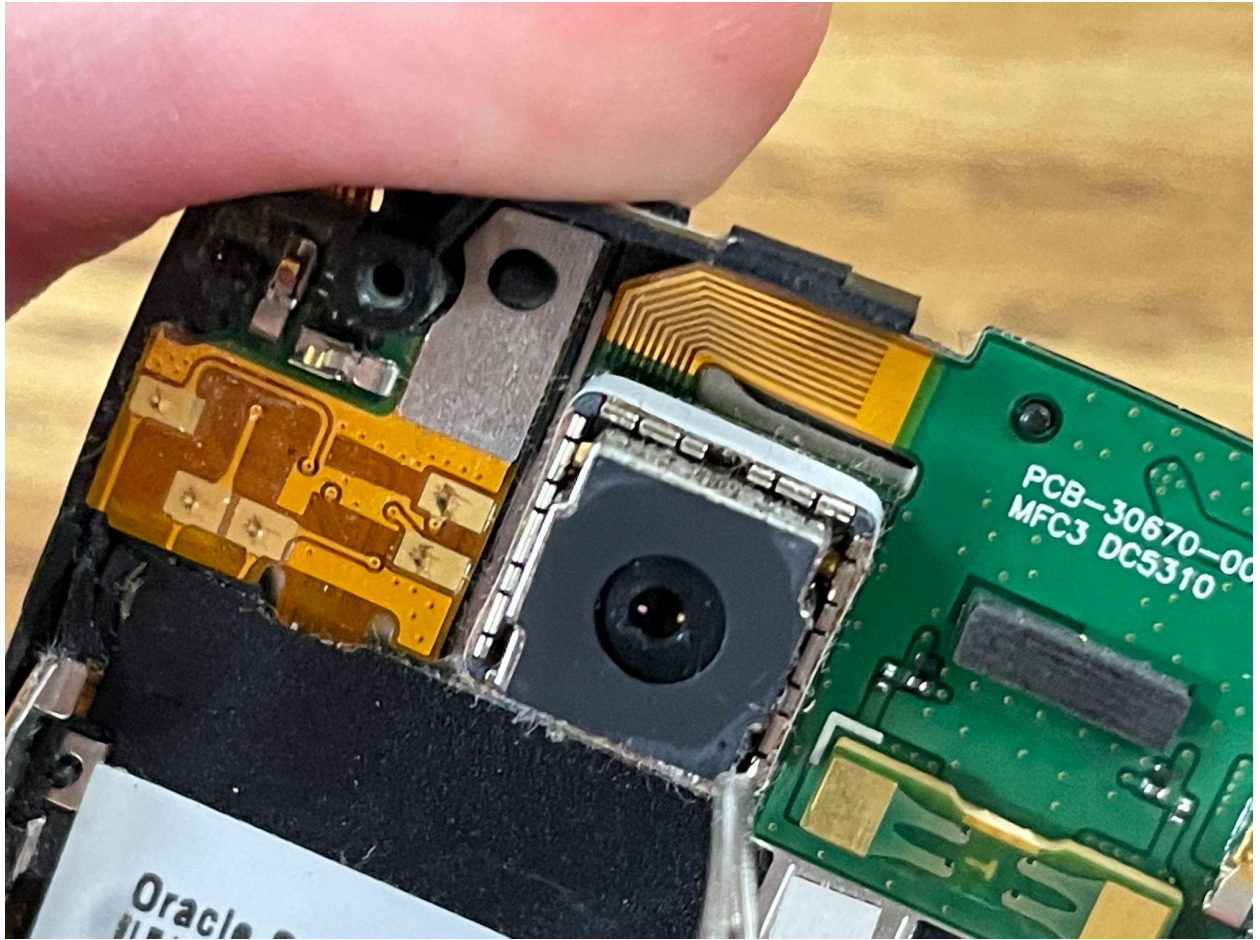
The motherboard is still connected to the phone via ribbon cables leading up to the camera.



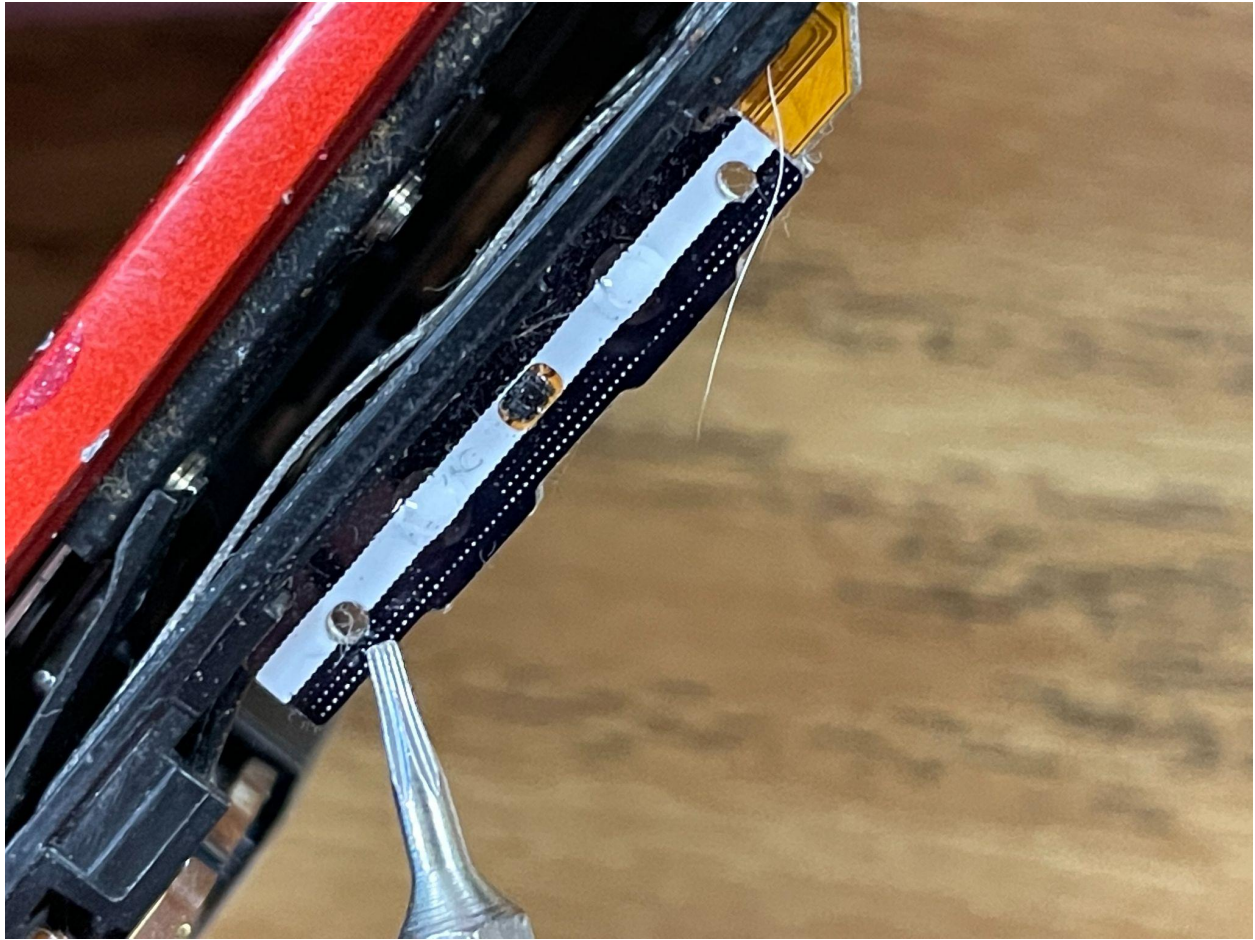
The audio Jack



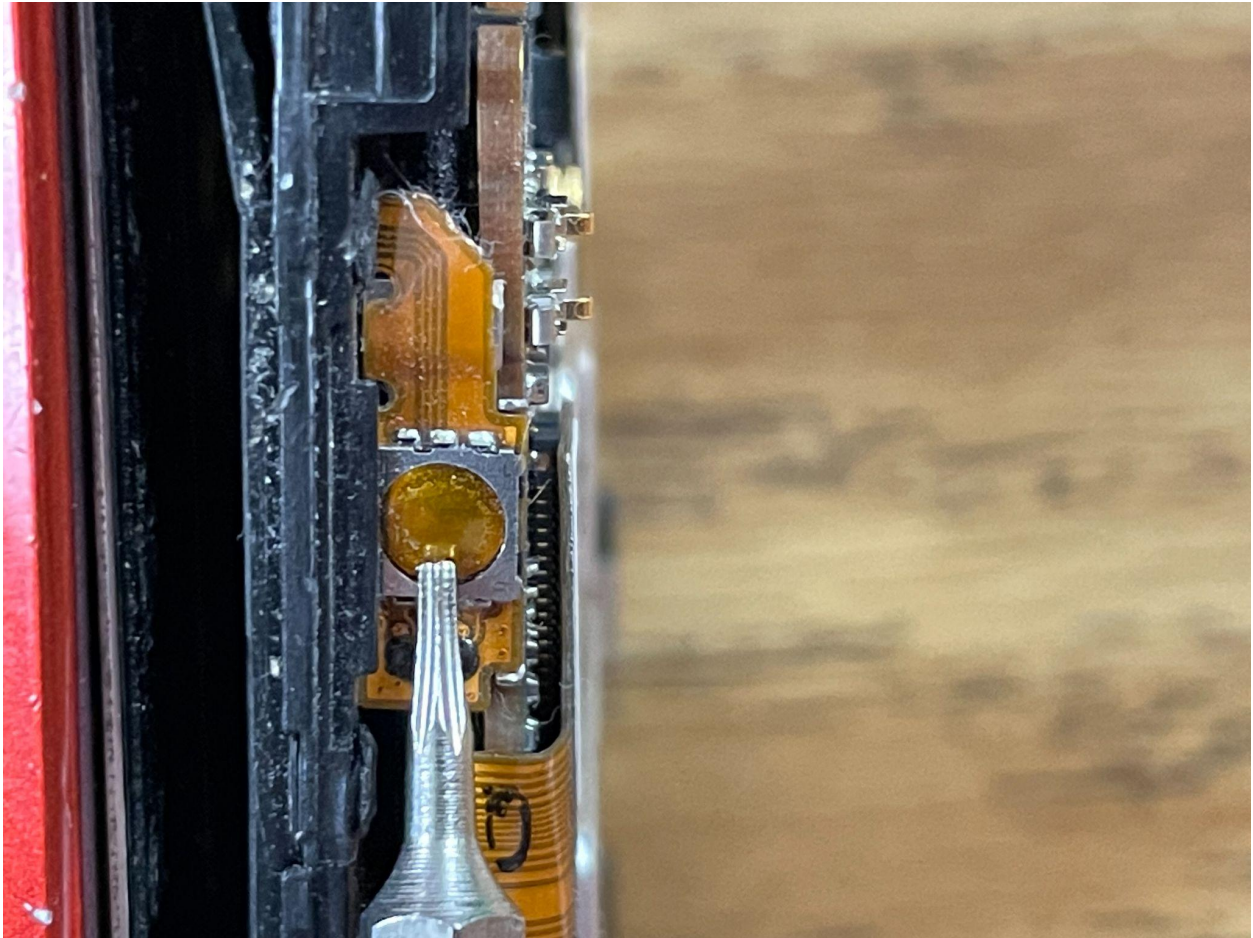
The camera is still inside of the frame.



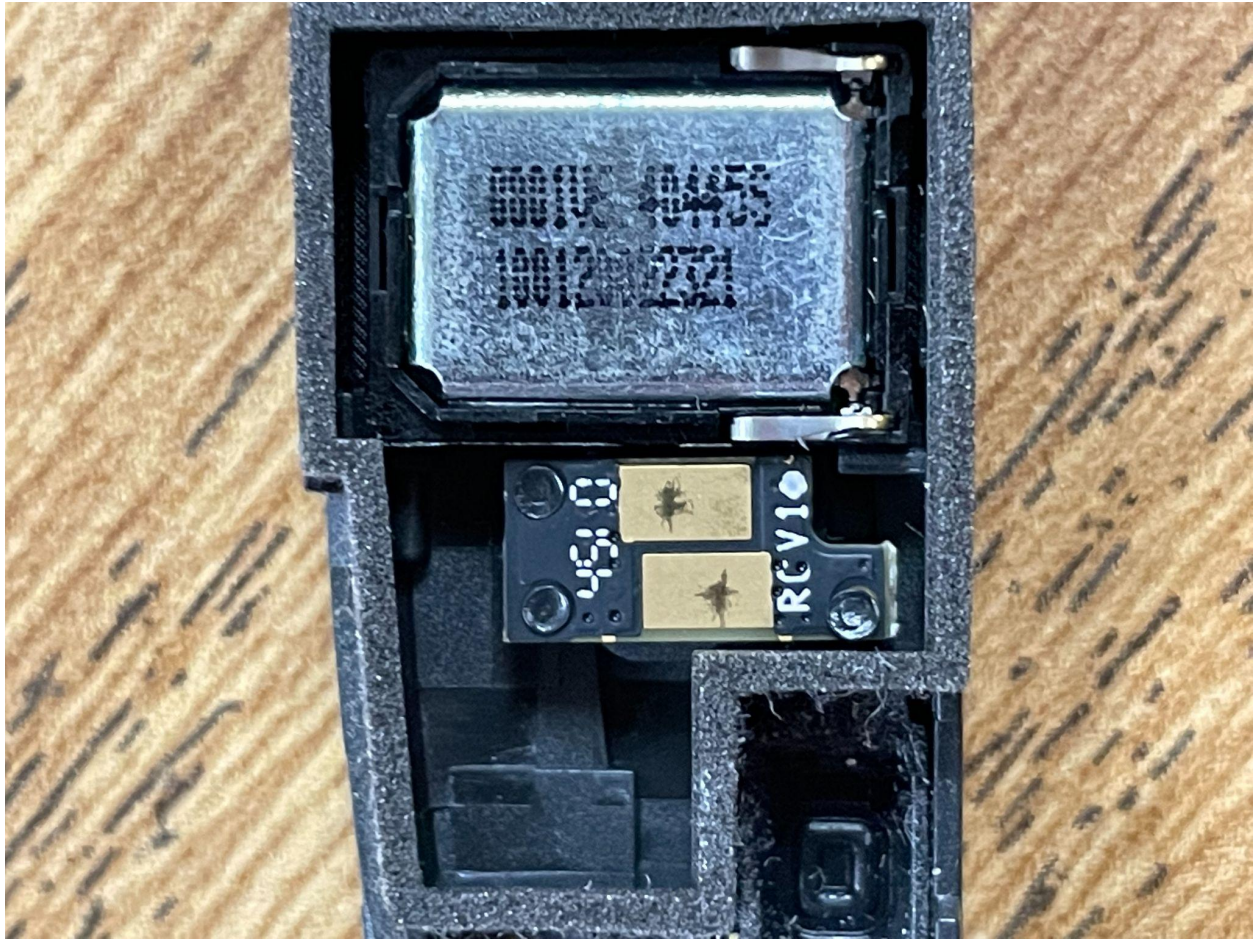
The volume switches.



The power switch.

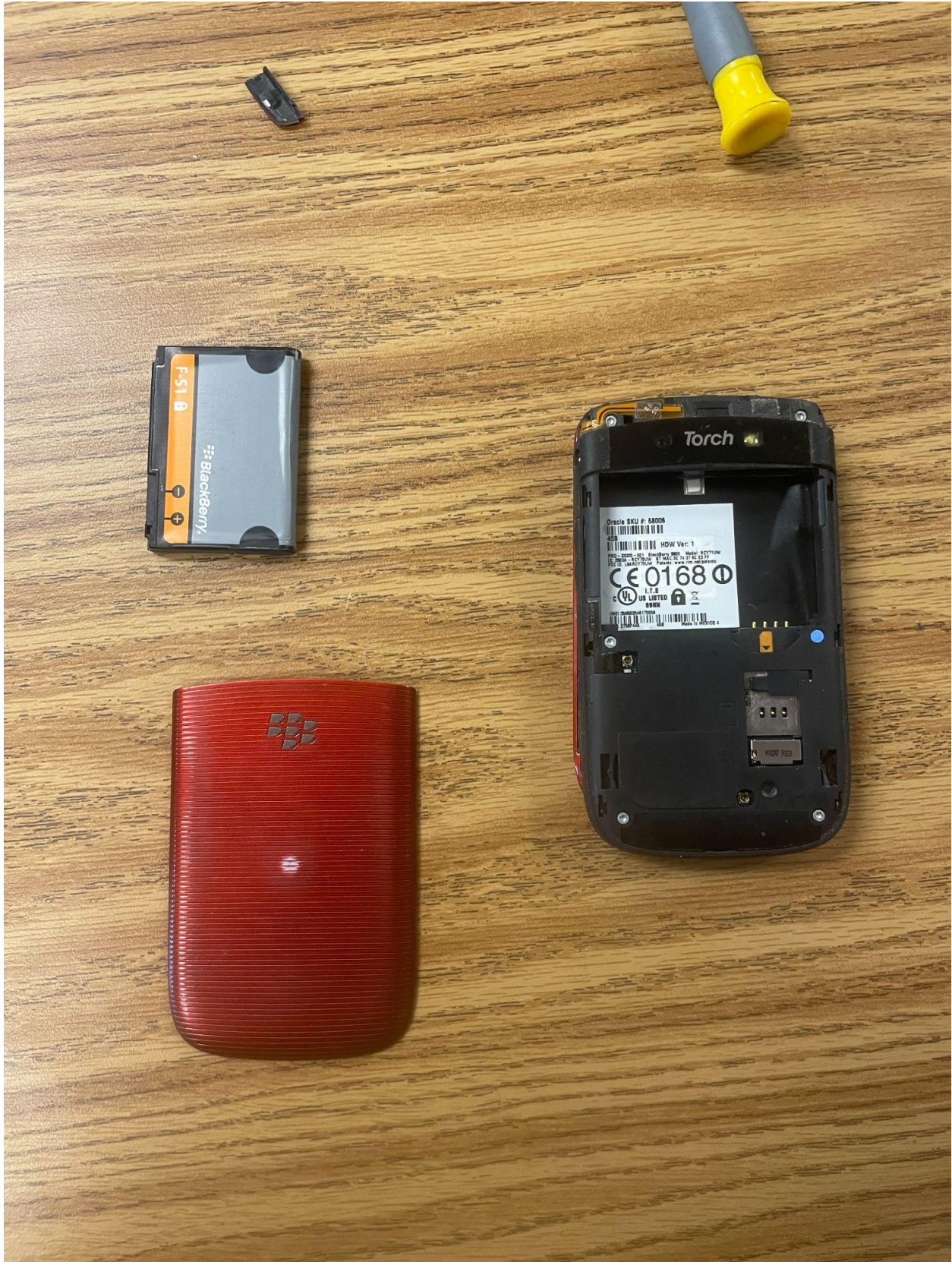


The Microphone for the camera and a LED for the flash.



The screen connected to the keyboard via a ribbon cable.





Phone at the end of Day 1 removed the Battery Cover.