

Electronics Online Challenge Sponsored by Texas Instruments

TEAM 505 C - RoboChamps

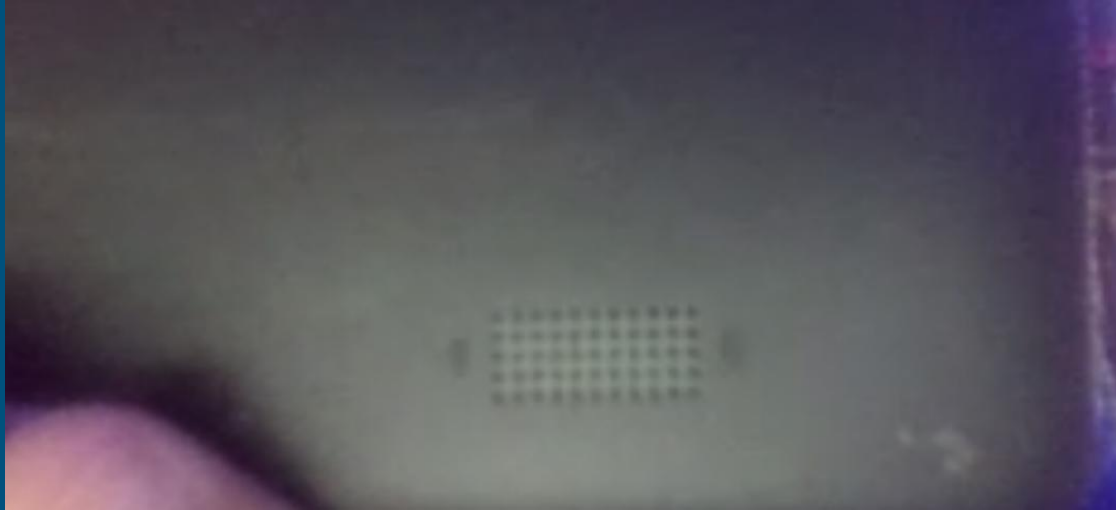
Team members: Dimera Smith, Anthony Morale, Preston Whittaker, Nikolas Pacheco, Nathaniel Casas, Miguel Salazar, Cristian Perez, Ethan Avila, Alan Martinez Chavez, Adrian Duran Macias,

LED



There is a flash in the front of the laptop

Vent on the laptop



There are vent in the front and the back of the laptop to keep them cool

Pictures of the tablet



This is the picture of the full tablet with everything intact

Pictures of the Battery



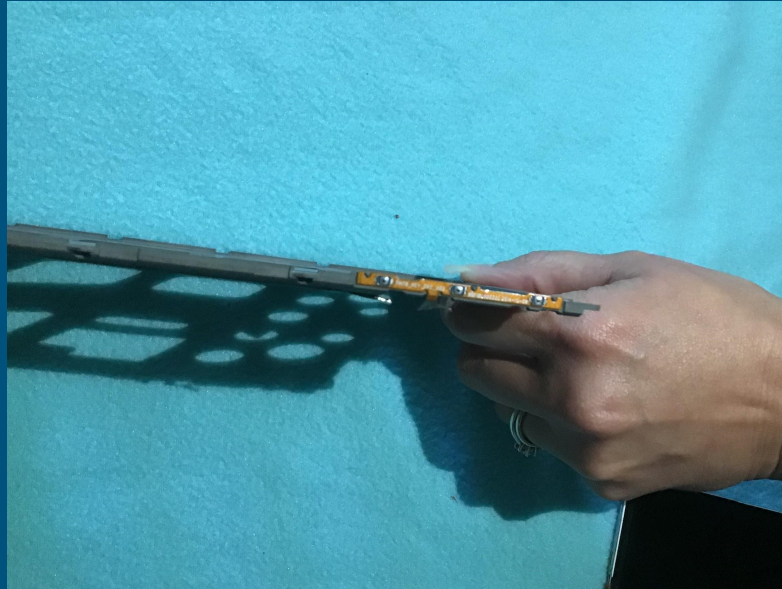
This is the tablet with the screen taken off showing all the components that are inside

Tablet Components



This is the behind of the screen taken out of the tablet and the black and orange tape is like a wire that connects to the microchip

Tablet Components



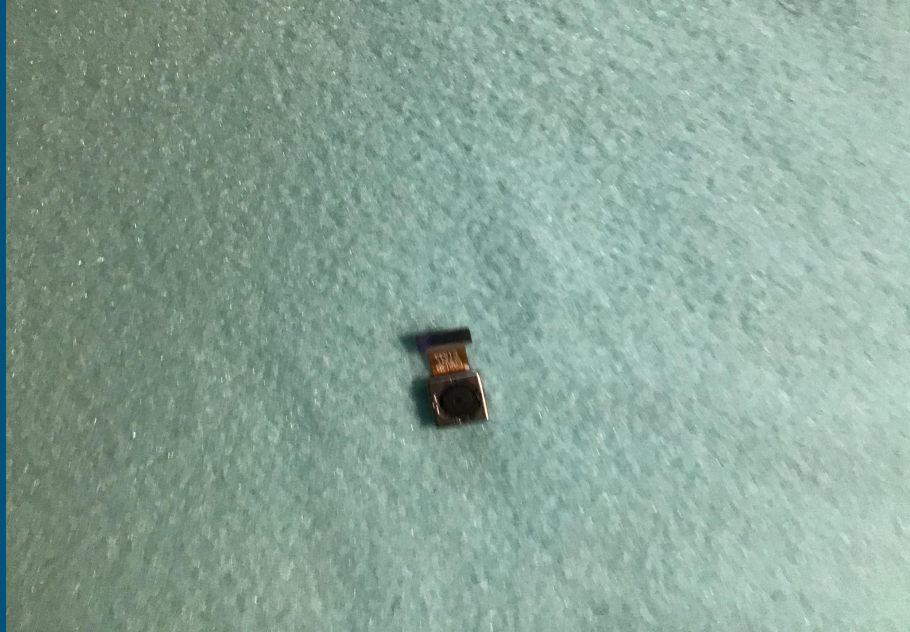
These are the two volume and power buttons. The volume buttons control how quiet or how loud it will be and the power button is responsible for the tablet to be on and off

Tablet Components



This is the frame that holds everything in its place in the tablet

Tablet components



This is the front tablet camera
that is able to take pictures and
videos

Tablet Components



This is the battery and it powers everything in the tablet

Tablet Components

— These are the top corners



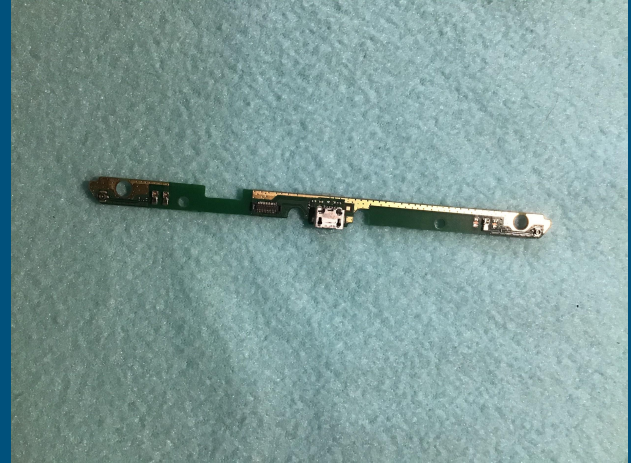
These are the
two parts that
hold the charger
in place

Tablet components

Bottom of charging port



top of charging port

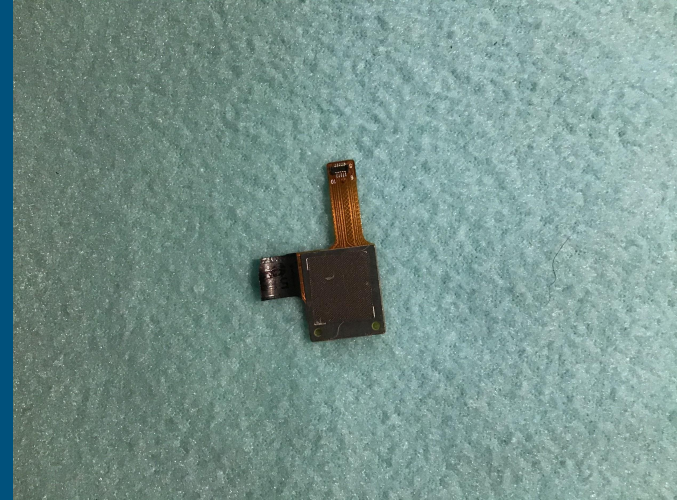
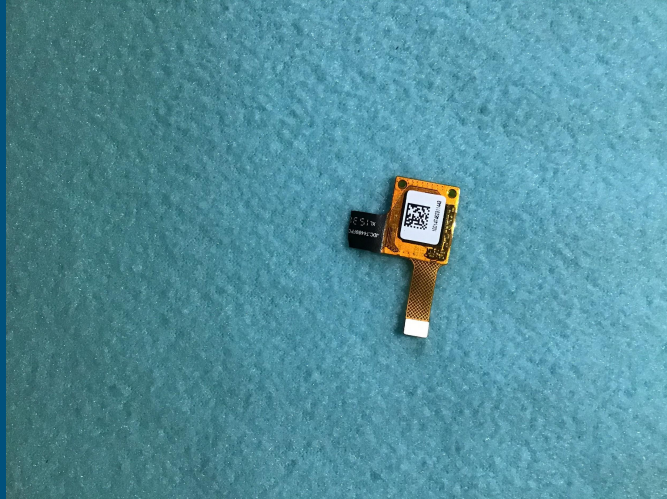


Tablet components



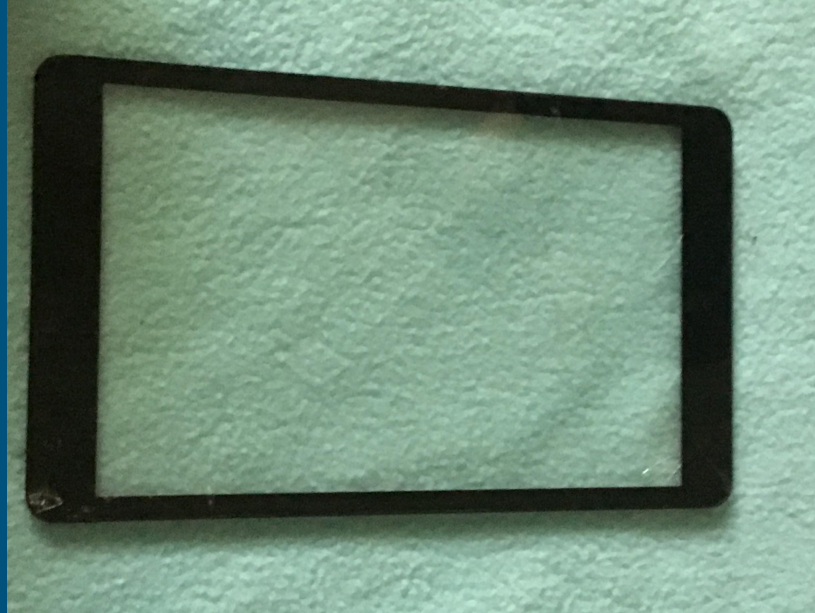
This is the Back camera lens, it does the same thing as the front camera lens but it just faces the opposite direction

Tablet components



The sd (Secure Digital) card holds the devices memory, can be used to expand the memory on any device.

Tablet components



The Screen protector
protects the front of
the tablet

Tablet components



the
microchip/Motherboard
controls all of the
components

These are all the components of the tablet



Summary

We chose a samsung tablet because it would be a good electronic to write about and it would be interesting to learn about all the components. We found a battery, back of the screen,we found a frame that holds everything in place,the power,and volume buttons,front tablet camera,microchip,back of battery,the top and bottom corners,top and bottom of charger,back of microchip,back camera lense,a Qr code, a cover to the frame and the screen protector.These are the hardware components: a processor, generally underclocked to limit heat output,memory chips,a storage chip and possibly a slot for additional storage for a battery, a graphics processor ,a sound processor and speakers sensors such as accelerometers, a compass and light sensors a GPS receiver. The battery plays an important role giving the tablet energy to work.The screen protector protects the front of the tablet so it isn't so easy to damage.The frame is what keeps everything in place without it, all the parts will be misplaced.The power button is responsible for turning the tablet on and off.The volume buttons control how loud or quiet the audio is. The sim card is responsible for all of the data.

Summary

Each component has a purpose to make the tablet work like the battery gives it power, the sim card is responsible for all the data whenever you use the tablet and a graphics processor so that you can see what's on the screen, if a component is missing the tablet wont work right or not work at all, that's why we took the tablet apart and examined each part to see what each part does and what its purpose is, so that we can understand how the tablet works

Resources

<https://computer.howstuffworks.com/tablets/android-tablet.htm>

<https://computer.howstuffworks.com/tablets/tablet.htm>

<https://www.dummies.com/consumer-electronics/tablets/android-tablets/what-are-all-those-hardware-pieces-on-your-android-tablet/>

<https://mytabletguru.com/introduction-to-tablet-hardware/amp/>

<https://all-spares.com/en/articles-and-video/what-s-inside-a-tablet-pc-and-other-mobile-devices.html>