

Texas Instruments

Electronics Online

Challenge

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Period 2

Mr. W

I chose two older cell phones: the iPhone 3G by Apple and the Pixi Plus by Palm. I chose these two cell phones because both phones represented development and growth for both companies. For Apple, this meant moving forward and refreshing the iPhone with newer hardware, but for Palm, this represented something much bigger. For Palm, this gave way to the new phone lineup, which included two phones: The Palm Pre and the Pixi. I first decided to open up the Pixi. Being my first phone, I always wondered what inside of it made it work. The Pixi features what was Qualcomm's latest CPU for lower ends phones, the MSM7627, which runs at a cool 600 MHz. After looking at the CPU, I decided to find the RAM. The RAM was actually "hidden" on the outside of the logic board. This phone boasts a whopping 256MB running at 166 Mhz. I then looked at what devices in the phone were used for communication. I discovered a Qualcomm MSM6801A, which helps with cellular connectivity. For wireless internet, I found a Marvell WiFi chip. For bluetooth, there is a CSR bluetooth chip. They're both soldered to the logic board. There were no TI components in the Palm Pixi. Looking at the iPhone 3G, it was much easier to open up and look at the parts. The phone has a ARM11 CPU clocked at 412 Mhz. Looking at the RAM, this phone has less than the Pixie, the phone has 128MBs of it. Instead of having two separate for WIFI and bluetooth, Apple combined them in the Broadcom BCM4325. Again, there we no TI components in the phone. I learned many new skills when taking apart the phones, but the one that is far above the rest is patience. Without this valuable skill, both phones would probably be broken beyond because of not being patient.

Pictures:

Palm Pixi:



iPhone 3G:

