

# Texas Instruments Challenge Essay

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Robogators Team 2891

We took apart a Dell N5010 and found many pieces inside, including the motherboard, the processor, and the RAM memory unit. We selected this device because it was bigger and had more components than other electronic devices that we had. Here are the components we found.

The motherboard is a piece that connects all the components and parts in many devices. It also allows other components to interact with each other. A wireless LAN (Local Area Network) is a piece used to contact and message others. It is used for Gmail, messages, and other ways of calling and contacting. A hard drive is the piece that stores all your documents, pictures, downloads, and more. They can be internal or external.

The processor is the central processing unit and is the piece that gives instructions to the rest of the computer. It is the main and most important part of the computer. The Bluetooth chip interprets incoming Bluetooth signals and then sends them out to other devices. The computer fan's job is to cool the computer by expelling warm air and taking in cool air from the inside. The computer fan helps keep the computer cool.

The DC Jack is the part of the computer that allows something to be plugged into the computer including the charging plug, USBs, and more wires. CD player lets you insert a cd, play it, pause, rewind, forward, record, etc. The RAM memory unit keeps all the things you download, save, copy, paste, and more, into one chip. It also lets you go back into your history, to revisit sites, delete them, and a numerous number of things.

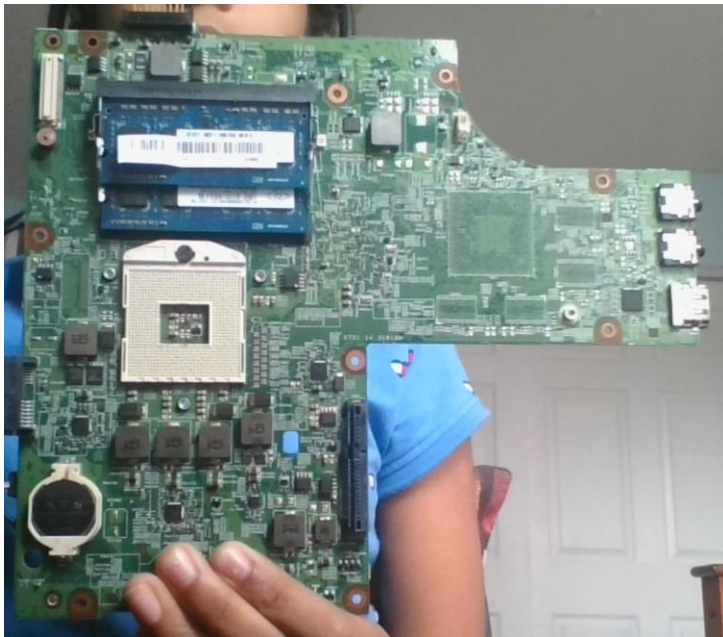
The I/O board is the component that inputs and outputs signals. For example, if you connect your laptop to your TV, it will mirror the laptop screen, thus using the I/O board. The card reader is a data input device that reads data from a card-shaped storage medium. In the first several decades of computers, card readers were paper or cardboard punched cards. The lithium battery is the part of the computer that powers the laptop when not plugged in and lasts for a long time until needing to be charged again.

These are all the main components we found including some connecting pieces, and coverings that covered most wires for safety measures. None of the components or parts in our laptop were TI parts, for they were made by a brand called Broadcom. We learned a lot from this investigation. We learned about the parts of the computer, what they do, and where they go. Lastly, we learned that all the pieces must cooperate so the computer can work, just like a robotics team.

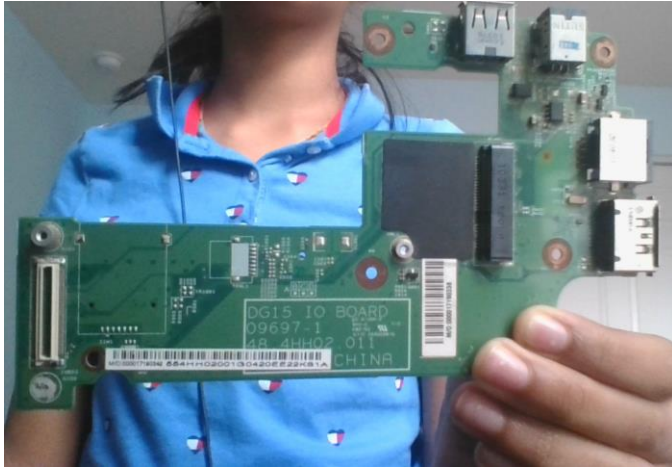
## Photos



This is a card reader. It used to be a punch card in the early decades of computers.



This is the motherboard it is the piece that connects all the pieces together and helps them interact with one another.



This is the IO board it inputs and outputs signals.



This is the CD player it lets you play CDs, record them, watch them, and pause them.



This is the processor it is the central processing unit or CPU of the computer.