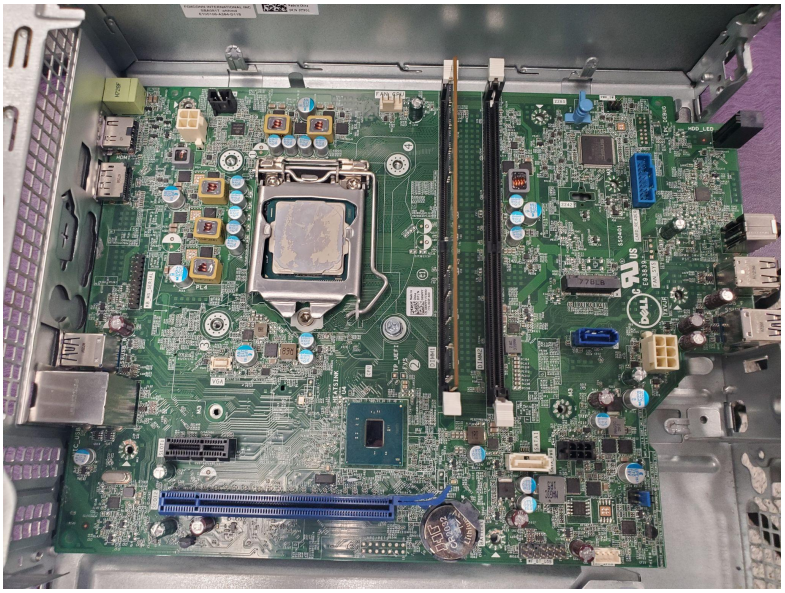
Reverse Engineering Online Challenge 2023

Disassembling and Analyzing a Dell Computer



Sci-Fi Coders

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Introduction

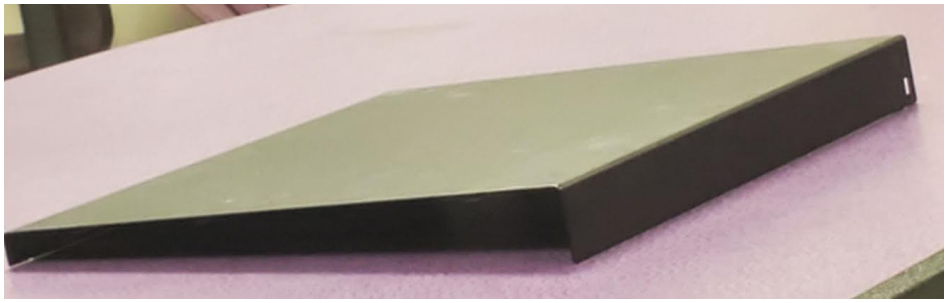
Dell Core i5 7th generation Optiplex 3050 computer

For this challenge, we decided to disassemble a Dell Computer. We found an old computer at our school and we decided to disassemble it. We were interested to see the components of the inside and how it works. This device is part of our daily lives, we use it daily at school. It can be used for entertainment, research, education, and many more! In this computer, we expect to find a motherboard, wires, a hard drive, screws, internal batteries, buttons, a power connector port, a fan, and storage memory.

Visual Guide

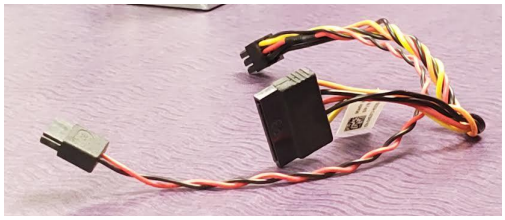
Disassembling Process

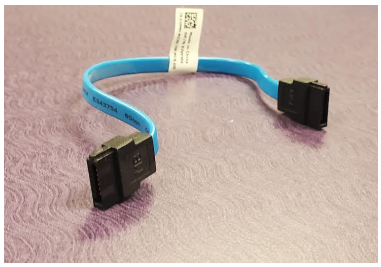
Step 1: We started disassembling the computer by removing the lid and the front



Step 2: We studied the inside and where everything was located, so we removed the CPU fan.

Step 3: We removed wires that would prevent us from taking apart the other components from the base.

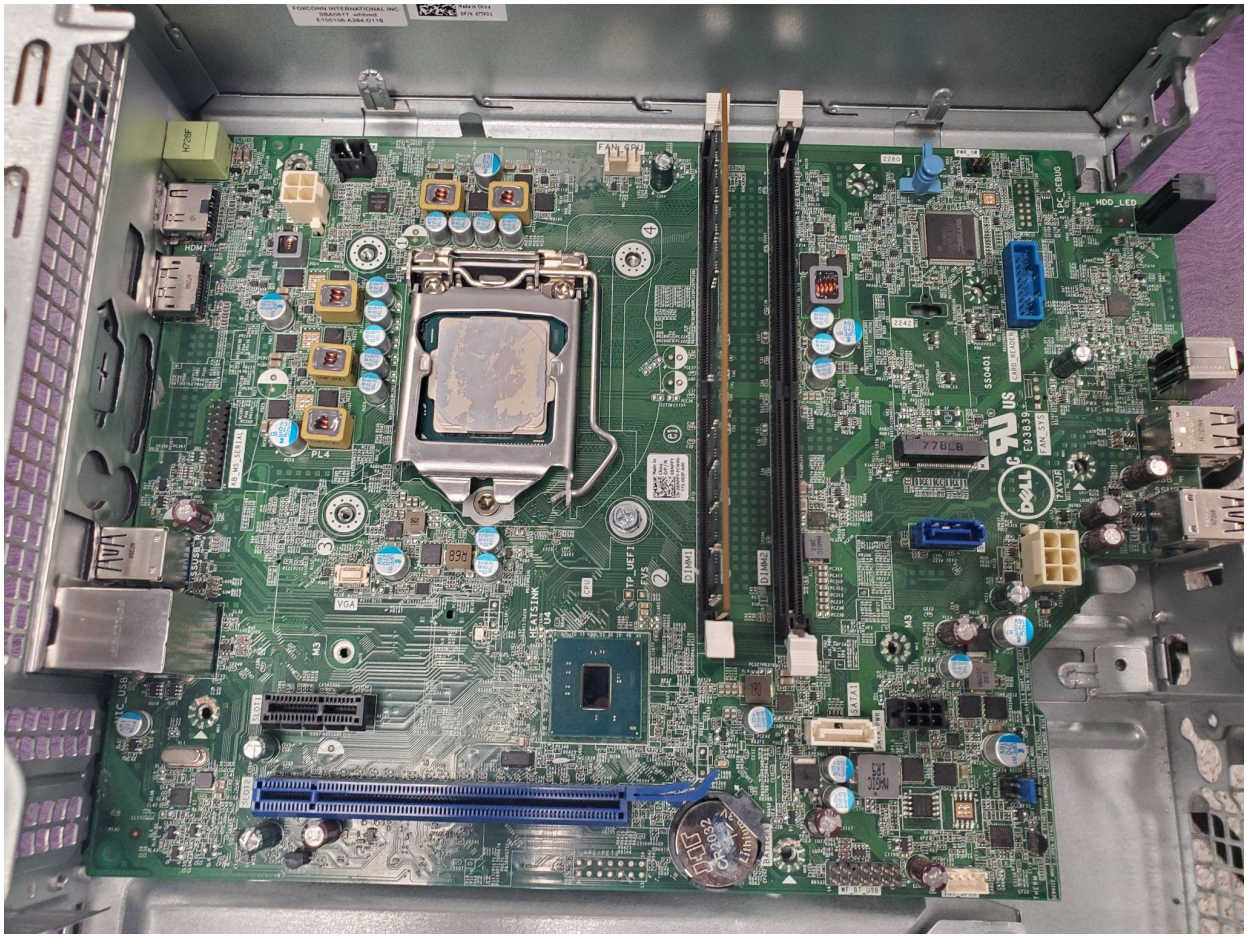




Step 4: We kept on removing different components of the computer and took pictures and notes.

Here is a before and after picture of the computer after all possible components were removed

Before



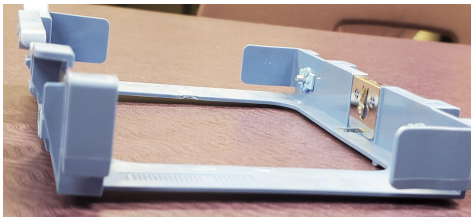
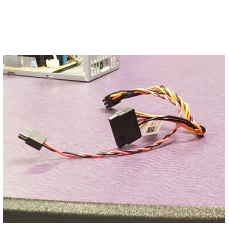
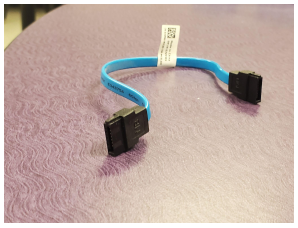
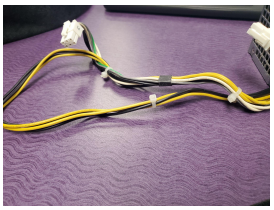
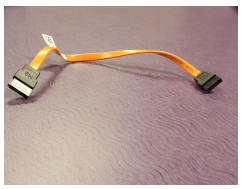
After

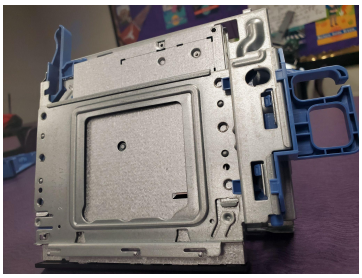
Components Analysis

Here is a brief visual of how the computer looked before we started to disassemble the inside.

Component	*Description*	*Visual*
CPU Fan	**A CPU fan is used to circulate air inside a computer. It prevents the computer from overheating and helps bring cool air from the outside.**	

Power Button	**A power button works by giving a signal to the power supply, then the power supply powers the computer so it can turn on.**	

Computer Cover	***The computer case serves mainly as a way to physically mount and contain all the actual components inside a computer***	
Caddy	***A caddy is a container used to hold some different things, such as a CD-ROM. It is also known as a disc container***	
Wires	***Wires are a flexible metal that is used to conduct electricity***	   

CPU	***A central processing unit, also called a central processor, is the electronic circuitry that executes instructions for computer programs.***	 
Caddy Cage	***A caddy cage is used to hold a caddy and give it protection when handling***	 
Watt Power Supply	***The watt power supply is the maximum amount of power the supply can output when under a 100% load.***