De La Salle University
Computer Technology Department

Introduction to Computing

Laboratory Activity #02: PC Assembly

Group Number	12	Section	S19
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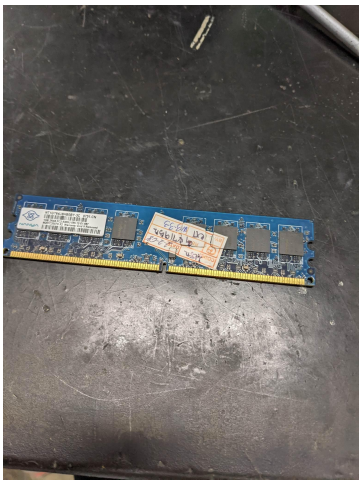
Instruction

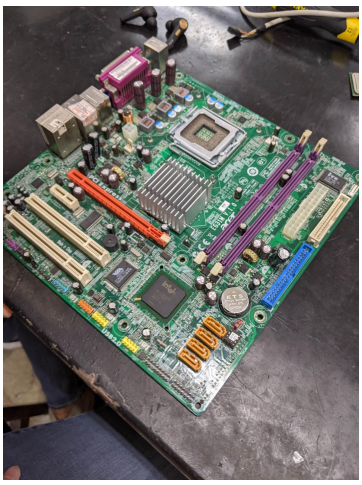
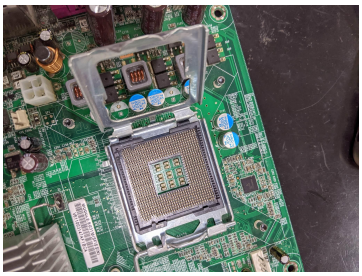
All the components, tools, and connectors are provided for you to assemble a single computer unit. Follow the procedures and make sure to answer all the questions. Notify your instructor to check your work after completing the procedures.

Procedures:

1. Given the descriptions below, identify the component. Then, take a picture of the component and insert it in the table below. If you have not been provided with a particular component, you may download one from the Internet (20 pts).

Component	**Image**	**Description**
RAM		Temporarily stores information currently being used for processing

HDD		Stores and retrieves information on floppy disks
CD-ROM Drive		Reads information stored in compact discs
CPU		Main chip in a computer that processes instructions, performs calculations and manages the flow of information

Motherboard		The main circuit board of a computer
CPU cooler		Dissipates the heat from the main chip
CPU Socket		A socket on the motherboard

Expansion slot		Additional cards that let you add features to a computer
Power supply		Converts wall socket alternating current electricity to direct current that other components use
Casing		Houses all computer components

2. An important step in the computer assembly process is to create an inventory of all computer components to be installed. Lay out all the components that will be used. Gather all the information and complete the inventory sheet below. Most of the

information can be found on the components, so make sure to inspect them carefully. If the information is not available or cannot be determined, ***you may also search on the Internet***. If there is really no information available, write N/A (35 pts).

Case

Manufacturer	Acer
Model	Veriton M460
Size [full-,mid-,mini-tower,SFF]	Mini-tower

Motherboard

Manufacturer	Acer
Model	EG31M V.1.0
Number of Processor Sockets	1
Number of Memory Slots	2
Number of SATA Slots	4
Number of IDE Ports	1
Number of PCI Slots	2
Number of PCI e Slots	2
Number of USB Ports	4
Number of Parallel Ports	1
Number of PS/2 Ports	2
Number of Ethernet Ports	1
Form Factor [ATX,MicroATX,MiniITX]	ATX

Processor

Manufacturer	Intel
Model	Core 2 duo E4400 2.00ghz
Number of Cores	2
Total Threads	2
Frequency	2.00ghz

Socket	LGA775

Memory

Manufacturer	Nanya
Model	NT1GT64U8HB0BY-3C
Type [DDR1,DDR2,DDR3,DDR4,DDR5]	DDR2
Capacity	1gb
Frequency	667MHz

Storage

Manufacturer	Western Digital
Model	SATA
Capacity	500GB
Type [HDD,SSD]	HDD

Power Supply

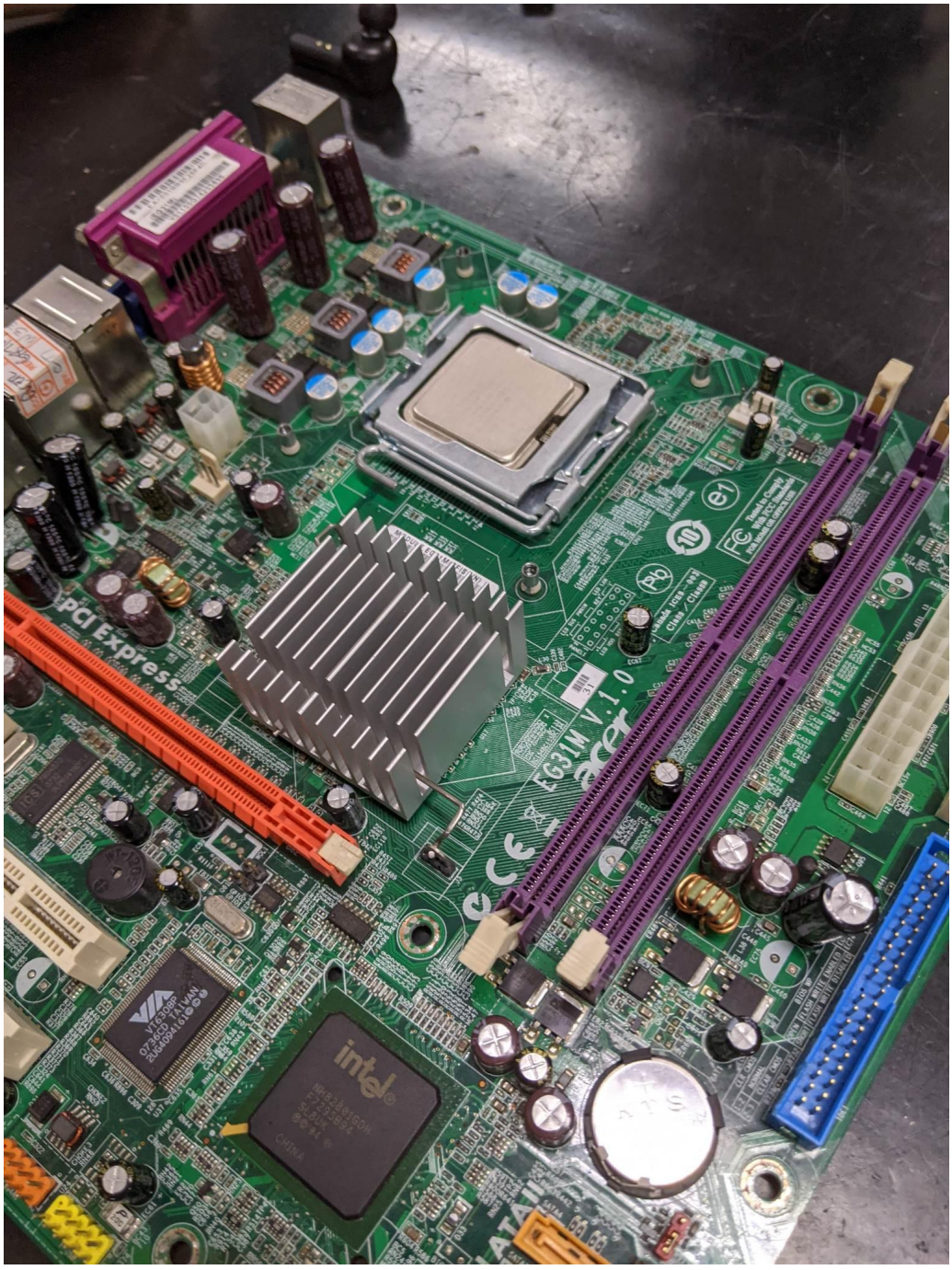
Manufacturer	Delta electronics
Model	DPS-250AB-22 E
Wattage	250W

CPU Cooler

Material	Aluminum and plastic
Fan Size	14x12x10 in

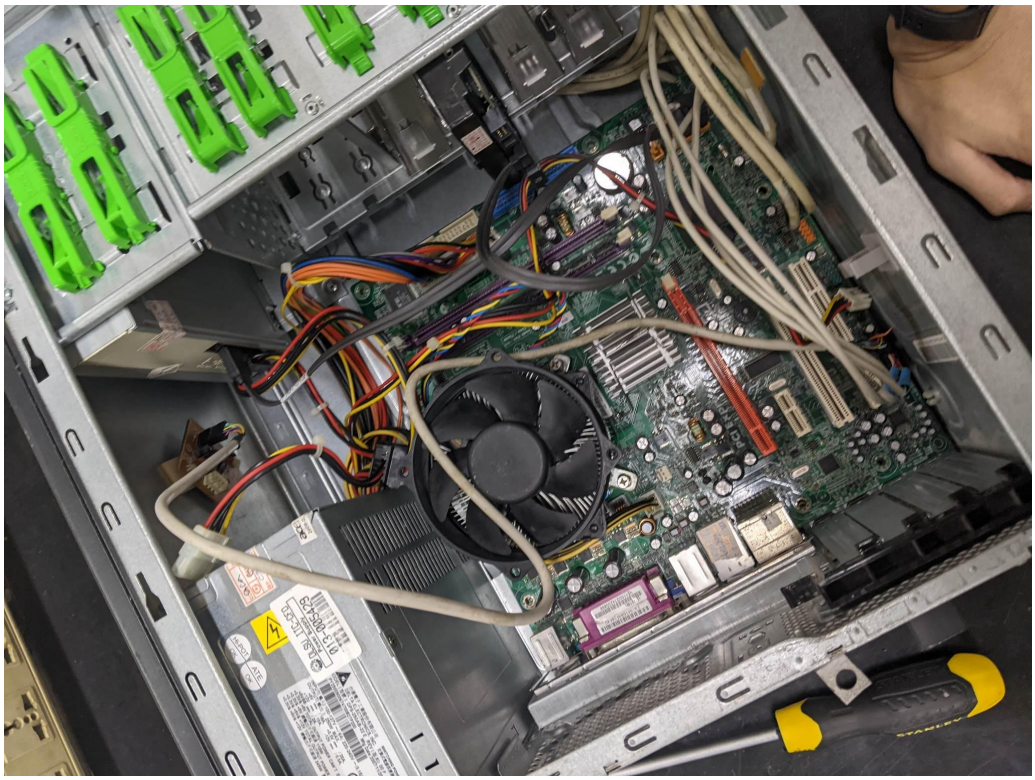
3. Assemble the computer by following the steps below (10 pts):

    3.1. Verify that the CMOS Battery is on the motherboard.
    3.2. Insert the CPU to the motherboard. Make sure that it is connected at the correct orientation before securing it in place. Take a photo of the CPU on the motherboard and insert it below.



3.3. Insert the CPU cooler on the top of the CPU and connect the fan to the motherboard.
3.4. Insert the memory modules into the motherboard.
3.5. Insert the motherboard into the case.
3.6. Insert the power supply into the case.
3.7. Connect the power supply cables into the motherboard.

3.8. Insert the storage device into case and connect it to the motherboard via the SATA cable.
3.9. Connect the SATA cable from the power supply to the storage device.
3.10. Insert the DVD drive into the case and connect it to the motherboard via the SATA cable.
3.11. Connect the SATA cable from the power supply to the DVD drive.
3.12. Connect the front panel and USB cables from the case to the motherboard. Look closely at the pin descriptions around the motherboard to identify what it should connect to.
3.13. Take a photo of the system so far and insert it below.

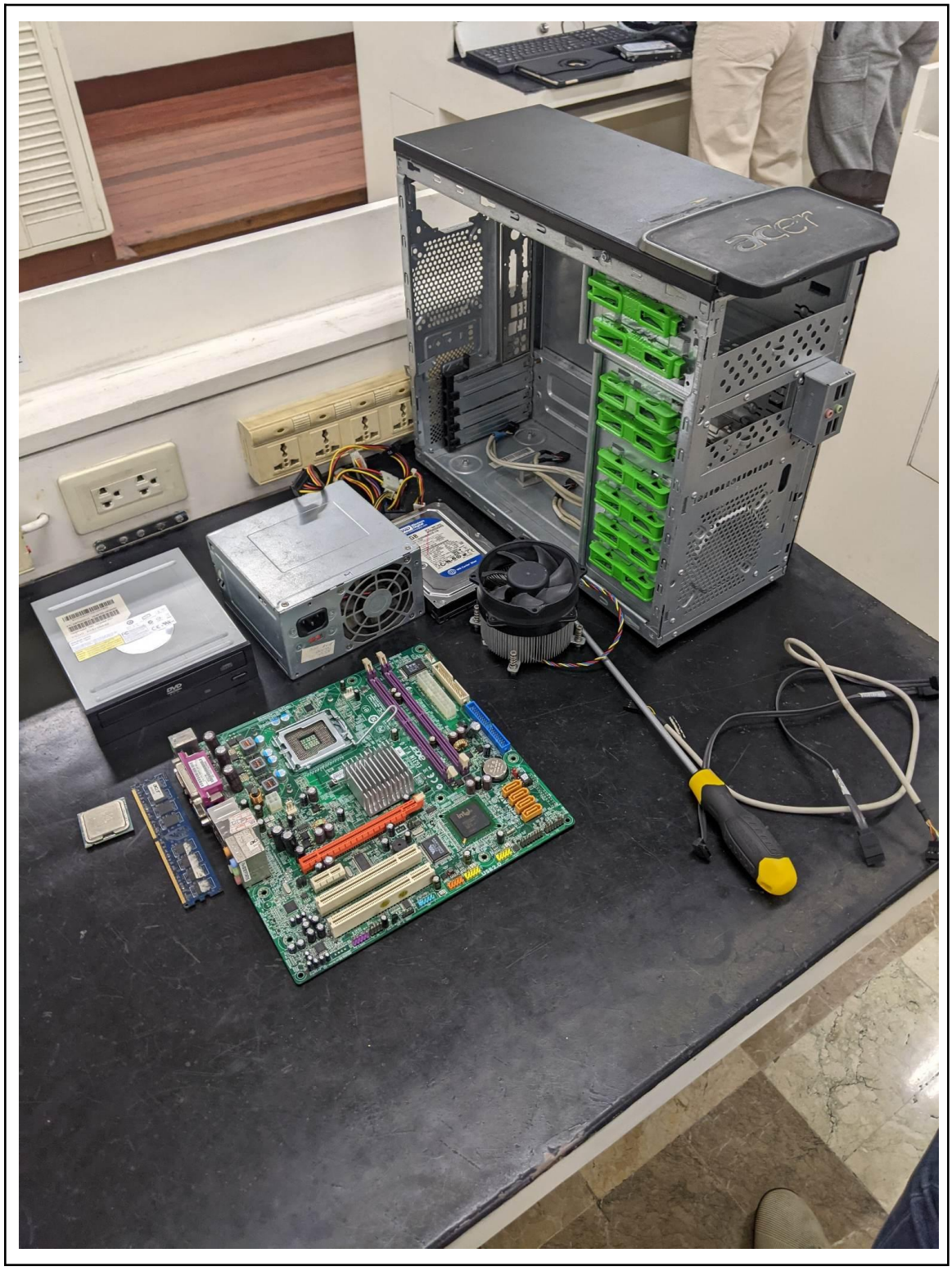


3.14. Close the PC case

4. Enumerate the challenges that your group encountered during the assembly process. Were you able to solve them? How? (10 pts)

We encountered a challenge when it came to identifying where to connect the various parts, particularly the cables. Initially, we struggled to figure out which cable went where, but with trial and error, we eventually got the hang of it. One helpful technique we used was to closely examine the pattern on the end of each cable and compare it to the port on the motherboard just like a puzzle piece.

5. Disassemble the PC. Take a photo of the disassembled system (5 pts).



6. Write your reflection about the activity (10 pts).

Participating in this activity was a valuable experience that provided us with a better understanding of the various parts that make up a PC. As first-time builders, the hands-on building experience allowed us to learn more about the main components of a computer, such as the motherboard and graphics card. It was really fun to be able to build a PC as none of us had done it before. We were able to successfully assemble it; though, we need to improve on the cable management part.

Question/Task Location	Possible Points	Earned Points
Procedure 1	**20**	
Procedure 2	**35**	
Procedure 3	**10**	
Procedure 4	**10**	
Procedure 5	**5**	
Procedure 6	**10**	
Total	**90**	