



### Group Members

Member 1:

Section:

Member 2:

Member 3:

## 2.0 Laboratory Activity 2 – Assemble Your Own PC

Hello Class, during this Laboratory Activity, we would get the opportunity to put together an actual computer system by plugging-in and installing its various internal components. During the lecture class, we have discussed the different parts of a computer, what each part does, and how they fit inside a computer. You may have also been given some really good [instructional videos](#) from **Paul's Hardware**, a well known YouTube Channel, which you may have already checked out.

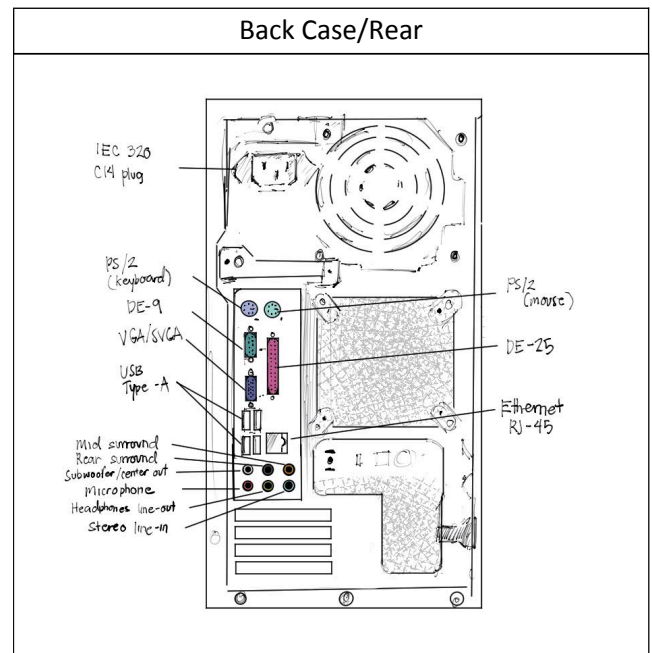
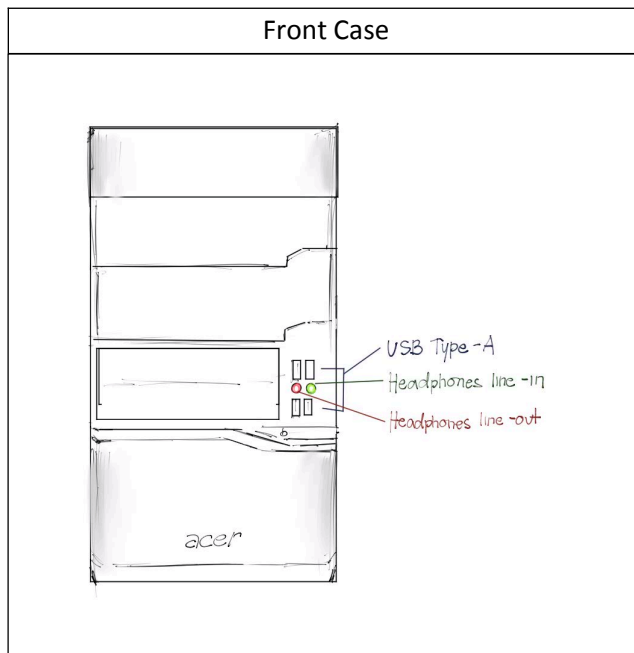
For this Laboratory Activity, we would be interacting with these components that make up a computer and observe if they are as expected based on what we learned from the lectures. To start, have one (1) member of the group kindly get the computer components from the Lab Technicians, if the computer and its components are not yet on your tables:

### 2.1 Objective

This laboratory activity focuses on the student's ability to identify all hardware components and assemble these into the computer casing.

### 2.2 Procedure

1. Make a drawing of the front and back case/rear of the PC assigned to you. Draw all the switches and port connectors, then label them on your drawing. Note that you may use the chart in the Appendix to help you with the port labels. You can also upload an image of your drawing with labels, then attach it as an Image Annotation below.



2. The first 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 needed information can be found on the components so make sure to inspect them carefully. **If the information is not available or cannot be determined, feel free to search on the Internet.** If there is really no information available, write **N/A**.

Component	Specifications
Computer Brand	Name <input type="text"/> Model <input type="text"/>
Case	Number of 3.5" bays <input type="text"/> Number of 5.25" bays <input type="text"/>
Motherboard	Manufacturer <input type="text"/> Model (if available) <input type="text"/> Is there a CPU socket? <input type="text"/> How many PCI slots are there? <input type="text"/> How many PCI-E slots are there? <input type="text"/> How many SATA connectors are there? <input type="text"/> How many IDE connectors are there? <input type="text"/> How many serial ports are there? <input type="text"/> How many USB ports are there? <input type="text"/> Is there a CMOS battery? <input type="text"/>
Processor	Manufacturer <input type="text"/> Model <input type="text"/> What type of socket does your CPU use? <input type="text"/>
Memory	<input type="checkbox"/> 168-pin DIMMs <input type="checkbox"/> 184-pin DIMMs <input type="checkbox"/> 160-pin RIMMs <input type="checkbox"/> Others, please specify <input type="text"/> How many memory slots are there? <input type="text"/>
Hard Drive	Manufacturer <input type="text"/> Model <input type="text"/> Interface Type: <input type="checkbox"/> IDE <input type="checkbox"/> SATA <input type="checkbox"/> Others, please specify <input type="text"/>
CD / DVD ROM	Manufacturer <input type="text"/> Model <input type="text"/> Interface Type: <input type="checkbox"/> IDE <input type="checkbox"/> SATA <input type="checkbox"/> Others, please specify <input type="text"/>

Video Card      Manufacturer   
Model   
Memory size   
Interface Type:      ☐ On board      ☐ PCI-E      ☐ PCI

Sound Card      Manufacturer   
Model   
Memory size   
Interface Type

Mouse Port      Type:      ☐ PS/2      ☐ USB

Keyboard Port      Connector:      ☐ PS/2      ☐ USB

Power Supply      Power supply Wattage

3. Enumerate the problems encountered during the assembly process and how you were able to solve them.

4. How can you tell a USB / USB2.0 port apart from a USB 3.0 port solely through inspection?

5. Which are the critical components in a computer that all computers should have as a minimum? Why?

## 2.3 Synthesis

With all the tasks given to your group for this activity, can you summarize your learnings and findings by providing a Conclusion. The Conclusion may discuss some realizations on the roles of the different components in a computer, how they are connected with each other, as well as the overall process of assembling a computer. Use the space provided below:

After completing the activity, don't forget to submit the completed manual in the respective assignment in AnimoSpace.

Have fun!

## 2.4 Appendix: Computer Connectors and Ports

### Ultimate Chart of Computer Connectors and Ports

Updated for 2016

#### USB, Keyboard and Mouse

USB Type A (male)	USB Type A (female)	USB Type B (male)	USB Type B (female)	USB Mini-A (male)	USB Micro-A (male)	USB Type C (male)	USB Type C (female)
USB 3.0 Type A (male)	USB 3.0 Type A (female)	USB 3.0 Type B (male)	USB 3.0 Type B (female)	PS/2 (male)	PS/2 (female)	AT Keyboard (male)	AT Keyboard (female)

#### Storage / Disk

SATA Type A	e-SATA	IDE 40-pin Connector	IDE 40-pin Port	Thunderbolt	Firewire 400 1394a 6-pin	Firewire 400 1394a 4-pin	Firewire 800/3200 1394b/c
SCSI VHCDI 8. mm 68-pin	SCSI Micro DB68 (male)	SCSI Micro DB68 (female)	SCSI Micro DB50 (male)	Internal 50-pin SCSI (m)	Internal 50-pin SCSI (f)	Internal 68-pin SCSI (m)	Internal 68-pin SCSI (f)

#### Network / Communications

Ethernet RJ-45	Modem/Phone RJ-11	DB-25 Serial (male)	DB-25 Serial (female)	DE-9 Serial RS232 (m)	DE-9 Serial RS232 (f)	Centronics Parallel 36-pin	MIDI/gameport/DA-15

#### Audio

Line-Out, Headphones	Microphone	Stereo Line In	Subwoofer/Center Out	Rear Surround Speakers	Mid Surround Speakers	Digital Audio (RCA)	Optical Audio Toslink

#### Video

VGA/SVGA (male)	VGA/SVGA (female)	DisplayPort (male)	DisplayPort (female)	Mini DisplayPort (m)	Mini DisplayPort (f)	HDMI Type A (male)	HDMI Type A (female)
DVI-I Single Link	DVI-I Dual Link	DVI-D Single Link	DVI-D Dual Link LFH-60	DVI-D Dual Link DMS-59	Micro-DVI	Mini-DVI	Mini HDMI Type C
Composite A/V (RCA)	S-Video	Component Video (m)	Component Video (f)	RF/Coaxial (male)	RF/Coaxial (female)	Apple Display Conn (ADC)	Micro HDMI Type D

#### Power

IEC 320 C13/C14 Connector	IEC 320 C13 Socket (f)	IEC 320 C14 Plug (m)	IEC 320 C19 (f)	IEC 320 C20 (m)	IEC 320 C5 Connector	SATA Power Connector	Molex 4-pin Connector

Brought to you by:

**PRR**  
COMPUTERS

PRR Computers, LLC  
(239) 244-1579  
[www.prrcomputers.com](http://www.prrcomputers.com)

**LegitUpdates.com**  
The safe source for real software updates.

This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Reference: <https://techgujarati.com/en/hardwares/all-computer-ports-and-connectors-pc-2/>