

Name _____

Group # _____

CPADS HW Activity I – Due 9/3

“Let's Get It Together!”

The goal of this first activity is to become familiar with the parts of a motherboard by identifying the various connectors.

1. Motherboard Identification

The first step to assembling a PC is to identify the motherboard and determine what capabilities it has by locating the various connectors we covered in class. Not all motherboards will have all the connectors and they may be in different locations and have different colors depending on the manufacturer. It is *important* to determine the manufacturer and model of the motherboard, as often we may not have the manual or driver CD that came with it (plus it is always a good idea to get the most recent drivers from the manufacturer's website since the drivers included in the motherboard box are typically out of date).

- Complete as much of the following table as possible for your particular motherboard **WITHOUT USING THE INTERNET** (leave anything not recognized or not present blank for the time being).

Motherboard Specs

Manufacturer _____

Model _____

Chipset (Northbridge/PCH) _____

Supported CPU's _____

Memory type/max _____

Form factor _____

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I/O Slots – give number available and example component attached there

PCIe x16 _____

PCIe x1 _____

PCI _____

SATA _____

External Ports – give number and example component attached there

PS/2 _____

USB 2.0 _____

USB 3.0 _____

LAN _____

VGA _____

DVI _____

HDMI _____

Audio _____

- Use the Internet to verify the information and show an instructor the location of the connectors you identified above.

2. POST Your PC

Now that you have identified the motherboard it's time to verify that it operates correctly. You will need to hook up or install the following components. **ASK THE INSTRUCTOR** if you have **ANY** questions:

- Main motherboard power
- Auxiliary CPU power
- CPU and case fans
- Video Card (and power)
- 2 RAM (memory) Sticks
- Front panel connectors

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The motherboard and processor have already been installed in the case for you. To verify that the motherboard operates correctly you will power on your PC and run the Power-On Self Test (POST).

Connect your partially assembled PC to external power and a monitor using the cables present in the desk. Press the power button on the front of the case. You should see a variety of logos and messages appear on your monitor. This is the POST that your machine will perform every time it is turned on.

Show the instructor that your computer POST's properly.

Remove the RAM and video card from the computer and disconnect all the cables.