

# Building a Personal Computer



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## **Introduction**

The purpose of this memo will be to explain how to build a PC. This memo will focus on the process of installing hardware components inside a PC. It will provide information on how to install PC components into a case. The goal of these instructions is to help the average person with minimal technical background install hardware inside a PC. Users may also wonder about connecting devices and installing necessary software. End-users can expect illustrations and in-depth instructions to guide them through the installation process.

## Pre-Installation

## Materials and Tools

- PC Components
- Input/Output Devices
- Cables and Connectors
- Cable Ties or Velcro Straps
- Anti-static wrist strap
- User Manuals and Documentation



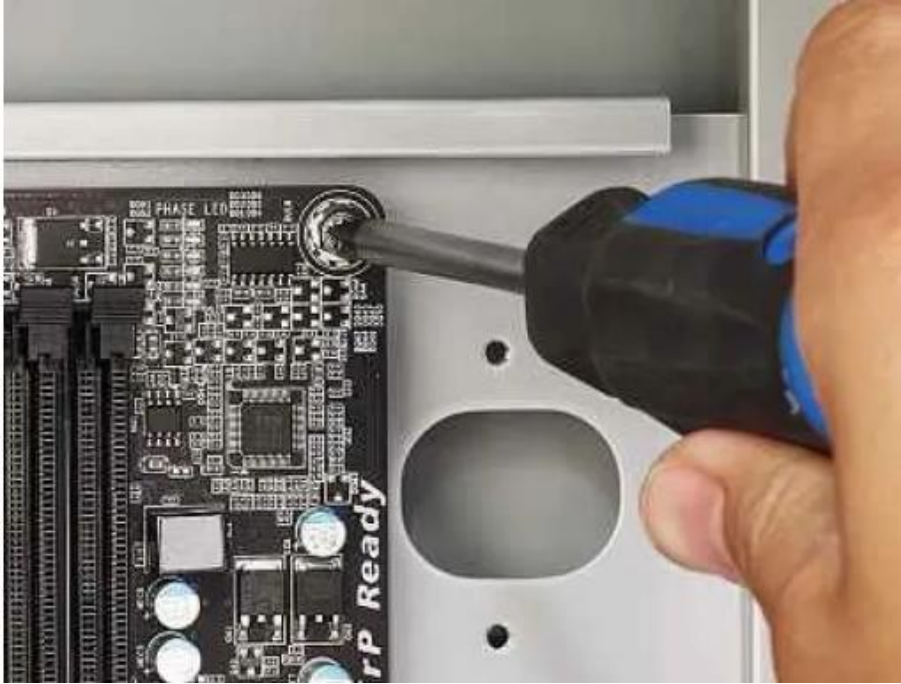
## Setup

- Place your empty case on a **solid** and **clean** surface.

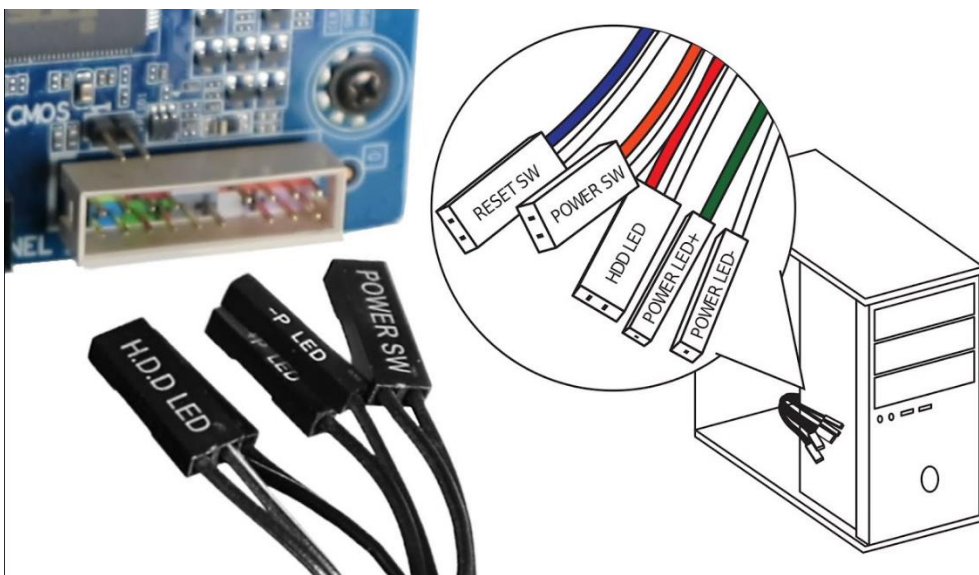


## Installing the Motherboard

1. Place your motherboard on top of standoffs found inside your empty case.



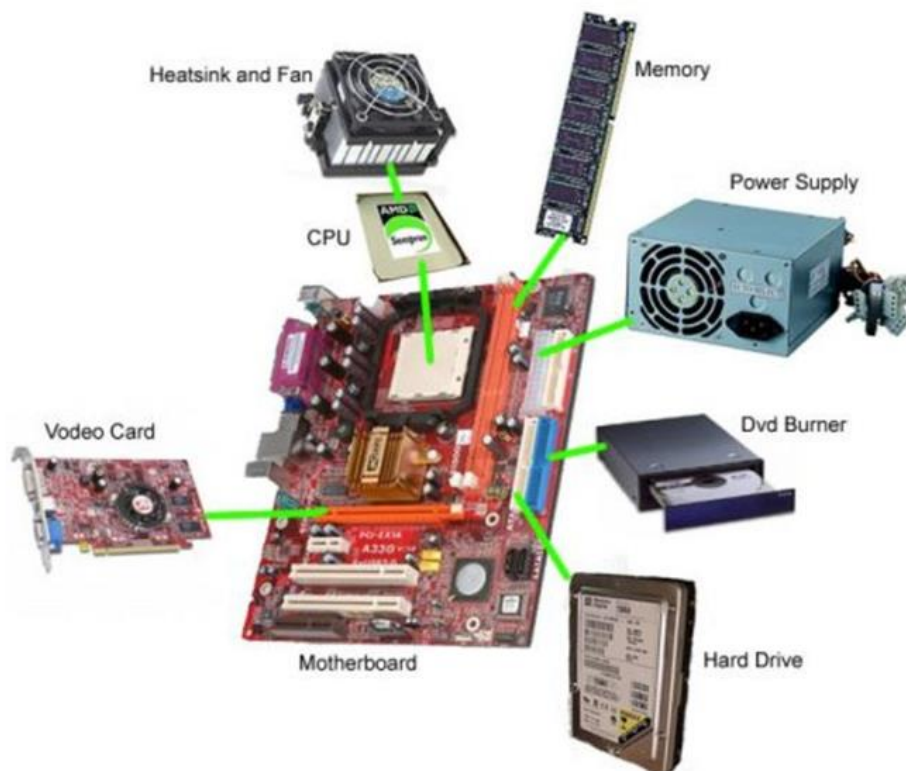
2. Connect your cases' front panel connectors to your motherboard.



## Installing Hardware to the Motherboard

### 3. Connect your...

- CPU
- Fans
- GPU
- RAM
- SSD
- HDD



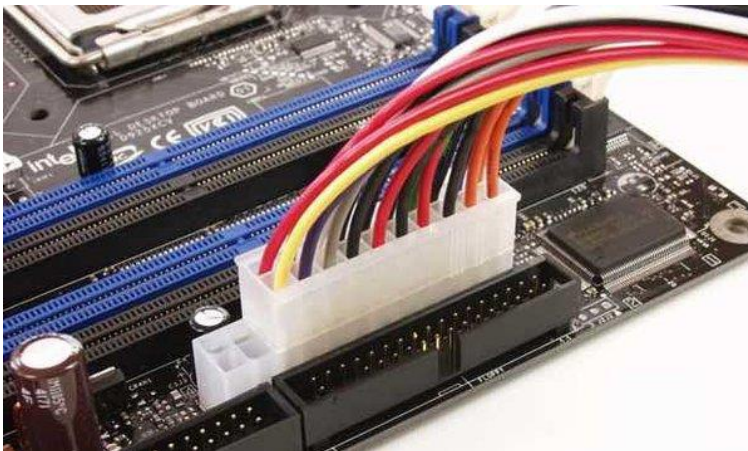


## Installing the Power Supply

4. Place your power supply in its appropriate spot (usually located at the top or bottom of your case)



5. Connect power supply cables to your motherboard.



6. Connect hardware that requires the power supply.
  - a. GPU
  - b. HDD

## Installing the PC

7. Connect one end of the power cord to the power supply...



8. Then connect the other end of the power cord to a wall outlet.



## Installing Input Devices

9. Connect your keyboard, mouse, webcam, controllers, etc....



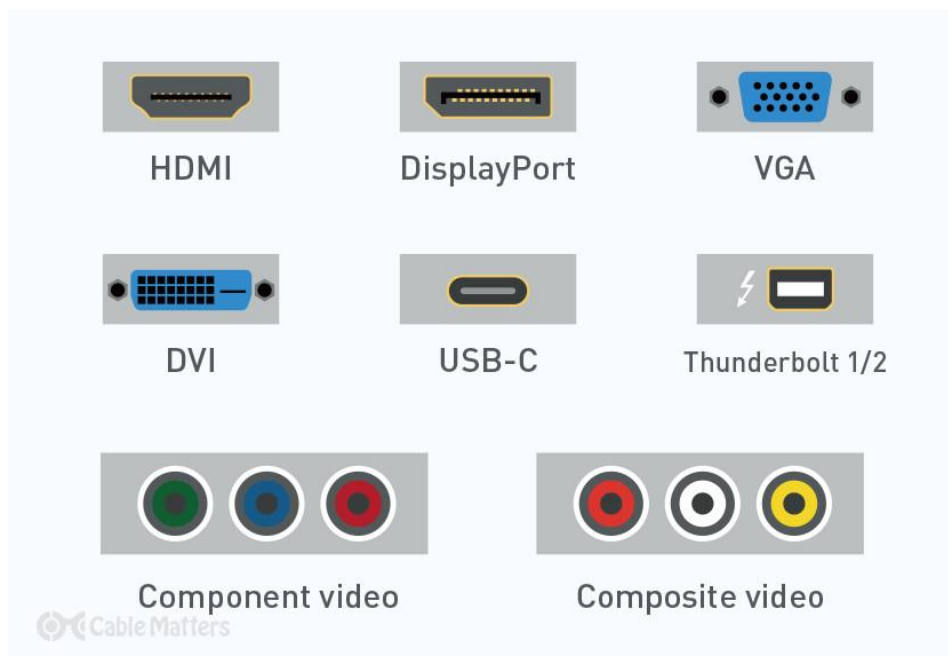


## Installing Output Devices

10. Place your monitor on your desk and find the cable ports, usually located at the **back** of your monitor



11. Plug one side of your preferred cable into your PC, and the other side into your monitor.



## Installing Windows

12. Plug a USB with the Windows OS setup installed (downloadable via the Microsoft website)



13. Then, you will turn on your PC and follow the installation instructions shown on screen.

## Installing Drivers

14. For your PC to work, you need to install **drivers**. These drivers are...

- Video Drivers
- Chipset Drivers
- Audio Drivers
- Lan/Wireless Drivers

Each set of drivers can be found on the **manufacturer's website** for each piece of hardware. For example, an AMD brand CPU's drivers can be found on the AMD website.



## Testing and Troubleshooting

15. Once you are finished, try using your PC and ensure that everything works properly.

