PC BUILD + Building a PC is a detailed process.

<u>CPU</u>	Intel Core i9-13900K 3 GHz 24-Core Processor	<u>\$558.98</u>	<u>Buy</u>
CPU Cooler	Cooler Master Hyper 212 Black Edition 42 CFM CPU Cooler	\$37.98	<u>Buy</u>
Motherboard	Gigabyte B660M DS3H AX DDR4 Micro ATX LGA1700 Motherboard	\$109.99	<u>Buy</u>
Memory	Corsair Vengeance LPX 32 GB (2 x 16 GB) DDR4-3600 CL18 Memory	<u>\$69.98</u>	<u>Buy</u>
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Storage	Samsung 870 QVO 8 TB 2.5" Solid State Drive	<u>\$447.60</u>	<u>Buy</u>
Video Card	MSI GeForce RTX 3060 Ventus 2X 12G GeForce RTX 3060 12GB 12 GB Video Card	<u>\$354.99</u>	<u>Buy</u>
Case	NZXT H510 ATX Mid Tower Case	\$82.99	<u>Buy</u>
Power Supply	Corsair RM850x (2021) 850 W 80+ Gold Certified Fully Modular ATX Power Supply	<u>\$149.99</u>	<u>Buy</u>
Sound Card	Creative Labs Sound BlasterX AE-5 Plus 32-bit 384 kHz Sound Card	<u>\$149.99</u>	<u>Buy</u>
Wired Network Adapter	TP-Link TG-3468 Gigabit Ethernet PCIe x1 Network Adapter	<u>\$14.99</u>	<u>Buy</u>
Monitor	Asus TUF Gaming VG27AQ 27.0" 2560 x 1440 165 Hz Monitor	\$300.00	<u>Buy</u>
<u>Monitor</u>	Asus TUF Gaming VG27AQ 27.0" 2560 x 1440 165 Hz Monitor	\$300.00	<u>Buy</u>

Gaming Keyboard	RGB Backlit Wired Gaming One Handed Keyboard Mechanical Feeling for PS4 Xbox PC Mobile Gaming	<u>\$29.99</u>	<u>Buy</u>
Keyboard	Redragon K552 Wired Gaming Keyboard	<u>\$36.99</u>	<u>Buy</u>
<u>Headphones</u>	Logitech Pro X 7.1 Channel Headset	\$83.98	<u>Buy</u>
Mouse	BENGOO Gaming Mouse Wired	\$9.83	<u>Buy</u>
<u>Laptop</u>	Predator Helios 16 Gaming Laptop	\$2,499.99	<u>Buy</u>
	<u>Total:</u>	\$5,308.24	

Building a PC is a detailed process, but with the right steps, it's straightforward. Below is a step-by-step guide tailored to the components you've selected:

## 1. Prepare Your Workspace

Gather Tools: You'll need a Phillips head screwdriver, thermal paste (although your CPU cooler already includes pre applied paste), and an antistatic wrist strap (optional but recommended).

Static Safety: Wear an antistatic wrist strap and work on a clean, nonconductive surface.

#### 2. Install the CPU

Open the CPU Socket: On the MSI B760 GAMING PLUS WIFI motherboard, locate the CPU socket and gently lift the retention arm.

Insert the CPU: Align the notches on the Intel Core i913900K with the notches on the motherboard socket. Carefully place the CPU into the socket without applying pressure. Lower the retention arm to secure the CPU.

#### 3. Install the CPU Cooler

Mount the Backplate: Attach the backplate that comes with the NZXT Kraken Elite 360 to the back of your motherboard.

Apply Thermal Paste: If the cooler doesn't have pre-applied thermal paste, apply a small pea sized amount to the center of the CPU.

Install the Cooler: Place the cooler over the CPU and secure it using the screws provided. Make sure to connect the pump power cable to the CPU fan header on the motherboard.

#### 4. Install the RAM

Open the DIMM Slots: Open the retention clips on DIMM slots 2 and 4.

Insert RAM: Align the notch on the G.Skill Trident Z5 RGB modules with the notch in the slots. Push the RAM sticks into the slots until the clips click back into place.

#### 5. Install the M.2 SSD

Locate the M.2 Slot: Find the M.2 slot on the motherboard.

Insert the SSD: Insert the Samsung 990 Pro 4 TB SSD at a 30degree angle, then push it down gently and secure it with the screw provided.

#### 6. Install the Motherboard in the Case

Prep the Case: Install the motherboard standoffs in the NZXT H6 Flow ATX case if they aren't preinstalled.

Install I/O Shield: Snap the I/O shield (if not preinstalled) into the rear of the case.

Install the Motherboard: Carefully place the motherboard into the case, aligning it with the standoffs and I/O shield. Secure it with the screws provided.

### 7. Install the Power Supply

Mount the PSU: Insert the Cooler Master MWE Gold 850W PSU into the PSU compartment at the bottom of the case, fanside down or up, depending on your case's ventilation.

Connect PSU Cables: Connect the necessary power cables:

24pin ATX: to the motherboard.

8pin CPU: to the CPU power header on the motherboard.

PCIe: to the GPU (once installed).

SATA Power: for any additional drives or peripherals.

#### 8. Install the GPU

Remove PCIe Slot Covers: Remove the PCIe slot covers from the case where the GPU will be installed.

Install the GPU: Insert the Asus DUAL OC GeForce RTX 4060 into the top PCIe x16 slot on the motherboard. Secure it with screws and connect the PCIe power cable from the PSU.

#### 9. Install Additional Components

Sound Card: Insert the Asus Xonar SE sound card into an available PCIe slot.

Network Adapter: Install the TPLink TG3468 network adapter and the Asus PCEAX3000 WiFi adapter into available PCIe slots.

#### 10. Connect Front Panel Cables

Power Button/LEDs: Connect the case's front panel cables (power switch, reset switch, power LED, HDD LED) to the motherboard's front panel header.

USB/Audio Ports: Connect the front USB and audio connectors to the appropriate headers on the motherboard.

## 11. Install Storage Drives

Install SATA Drives: If you have additional SATA SSDs or HDDs, mount them in the drive bays and connect SATA power and data cables.

#### 12. Cable Management

Organize Cables: Route the cables behind the motherboard tray and secure them with zip ties for a clean build.

### 13. Install the Monitors, Keyboard, and Accessories

Connect Monitors: Plug in your Asus TUF Gaming VG27AQ monitors to the GPU using DisplayPort or HDMI.

Connect Peripherals: Plug in the HP HyperX Alloy Core RGB keyboard and any other peripherals.

#### 14. Power On and Install the OS

Power On: Connect the power cable and turn on the PC. Enter the BIOS to ensure all components are recognized.

Install OS: Insert a USB drive with your preferred operating system (e.g., Windows 10/11) and follow the installation prompts.

#### 15. Install Drivers and Software

Install Drivers: Download and install drivers for your motherboard, GPU, and other peripherals.

Set Up Software: Install any other software you need, such as games or productivity tools.

#### 16. Final Checks

Check Temperatures: Use software like HWMonitor to check CPU and GPU temperatures.

Stress Test: Run a stress test to ensure system stability.

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If the laptop is connected to the monitor 1 and streaming PC is connected to monitor 1 and both computers are connected through the capture card and I need to disconnect the laptop from cc and connect the console to capture card, how do I connect to monitor 1?

To connect your console to monitor 1 and disconnect the laptop from the capture card while maintaining the streaming PC's connection, follow these steps:

### 1. Disconnect the laptop from the capture card:

Unplug the HDMI or DisplayPort cable connecting the laptop to the capture card's input.

## 2. Connect the console to the capture card:

• Plug the HDMI or DisplayPort cable from the console into the capture card's input.

### 3. Verify the streaming PC's connection:

• Ensure that the HDMI or DisplayPort cable is still connected from the streaming PC to the capture card's output. This will allow the streaming PC to continue receiving the signal from the console.

## 4. Switch the monitor's input:

• Use the monitor's input selection button or remote control to switch the input source to the capture card. This will display the console's output on monitor 1.

#### 5. Test the connection:

• Power on the console and verify that its output is displayed correctly on monitor 1.

By following these steps, you should be able to successfully disconnect the laptop from the capture card and connect the console to monitor 1 without interrupting the streaming PC's connection.

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Okay so if I am connecting the console to the monitor how do I get the streaming PC to stream the monitor 1 + console?

Here are the steps to connect your console to the monitor and stream both the monitor and console content to your streaming PC:

#### 1. Connect the console to the monitor:

 Use an HDMI or DisplayPort cable to connect the console's output to the monitor's input. Ensure that the monitor is set to the correct input source.

# 2. Connect the monitor to the capture card:

 Use another HDMI or DisplayPort cable to connect the monitor's output to the capture card's input. This will allow the capture card to capture the content displayed on the monitor, including the console's output.

## 3. Connect the capture card to the streaming PC:

Connect the capture card's output (usually USB) to the streaming PC. Ensure that
the necessary drivers are installed for the capture card to be recognized by your
PC.

## 4. Configure the streaming software:

- o Open your streaming software (e.g., OBS, Streamlabs OBS) and create a new scene.
- o Add a "Display Capture" source to the scene. This will capture the content displayed on your monitor, including the console's output.
- o Configure the "Display Capture" source to capture the correct monitor and adjust the resolution and frame rate as needed.
- Add any other sources (e.g., webcam, microphone) that you want to include in your stream.

## 5. Start streaming:

Start your stream in the streaming software and adjust the settings as desired.

By following these steps, you should be able to successfully stream both the monitor and console content to your streaming PC.

**Note:** The specific steps and settings might vary depending on the capture card and streaming software you are using. Refer to the documentation for your specific equipment for more detailed instructions.

## **Using Powerline Adapters to Connect Routers in Your Apartment**

**Powerline adapters** are a great way to extend your internet connection throughout your home, especially if you can't run Ethernet cables. Here's how to use them to connect routers in your bedrooms:

### 1. Purchase Powerline Adapters:

• Ensure you get adapters that support the necessary data transfer speeds for your internet connection and the devices you'll be connecting.

# 2. Plug in the Main Adapter:

- Connect one adapter to a power outlet near your main router.
- Connect this adapter to your main router using an Ethernet cable.

#### 3. Plug in the Bedroom Adapters:

• Plug the other adapters into power outlets in your bedrooms.

### 4. Configure the Bedroom Routers:

- **Disable DHCP:** This prevents the bedroom routers from assigning their own IP addresses, which could conflict with your main router's network.
- **Bridge Mode:** Put the bedroom routers into bridge mode. This means they'll act as simple Ethernet switches, passing data between the powerline network and your devices.
- **Connect Devices:** Connect your devices (computers, gaming consoles, etc.) to the bedroom routers using Ethernet cables.

## **Additional Tips:**

- **Placement:** For optimal performance, try to place the powerline adapters as close together as possible. Avoid placing them near electrical noise sources like microwaves or fluorescent lights.
- Quality: Invest in high-quality powerline adapters for better performance and reliability.
- **Mesh Networks:** If you need a more sophisticated solution, consider using a mesh network system instead of individual routers. Mesh systems can automatically optimize the network and provide better coverage throughout your home.

By following these steps, you should be able to successfully extend your internet connection to your bedrooms using powerline adapters.

In order to stream console/laptop gameplay, I would have to change the connection to the Capture Card [C.C] which I suppose will still be going from PC to C.C. to Monitor 1 while still being HDMI into monitor 2.





