

CUSTOM PC BUILD GUIDE

Generated on 21/3/2025

BUILD SUMMARY

Total Price: \$2699.92 (excluding tax and shipping)
Components: 8

COMPONENTS

Processor

AMD Ryzen 7 7800X3D

Price: \$449.99

Specifications: 8 cores, 16 threads, 4.2 GHz base, 5.0 GHz boost
Socket: AM5
TDP: 120W

Motherboard

ASUS ROG Strix X670E-F Gaming WiFi

Price: \$329.99

Specifications: PCIe 5.0, Wi-Fi 6E, 4x DDR5 RAM slots, USB 3.2, RGB support
Socket: AM5
Form Factor: ATX

Memory

Corsair Vengeance 32GB (2x16GB) DDR5 6000MHz

Price: \$199.99

Specifications: CL30, 6000MHz, RGB lighting

Graphics Card

NVIDIA GeForce RTX 4080

Price: \$1199.99

Specifications: 16GB GDDR6X, Ray Tracing, DLSS 3

Storage

Samsung 980 Pro 1TB NVMe SSD

Price: \$139.99

Specifications: PCIe 4.0, Read 7000MB/s, Write 5000MB/s

CPU Cooler

Noctua NH-D15

Price: \$99.99

Specifications: Dual tower design, 2x 140mm fans, High RAM clearance

Power Supply

Corsair RM850x 850W 80+ Gold

Price: \$139.99

Specifications: 80+ Gold, Fully Modular, Silent Fan
Wattage: 850W

Rating: 4.9

Case

Lian Li PC-O11 Dynamic

Price: \$139.99

Specifications: Dual chamber design, Tempered glass, Supports 360mm radiator

BUILD INSTRUCTIONS

STEP 1: Prepare Your Workspace

Clear a large, well-lit space for assembly. Ground yourself to prevent static electricity damage by using an anti-static wrist strap or by touching a grounded metal object before handling components.

STEP 2: Install CPU on Motherboard

Carefully align the AMD Ryzen 7 7800X3D with the socket on your ASUS ROG Strix X670E-F Gaming WiFi. Look for the arrow or gold triangle on the CPU and align it with the corresponding mark on the socket. Gently lower the CPU into place and secure the retention mechanism.

STEP 3: Install CPU Cooler

Apply a small pea-sized amount of thermal paste to the center of the CPU if not pre-applied on your Noctua NH-D15. Carefully place the cooler on the CPU and secure it following the manufacturer's instructions.

STEP 4: Install Memory

Insert the Corsair Vengeance 32GB (2x16GB) DDR5 6000MHz into the appropriate DIMM slots on the motherboard. Push down evenly on both sides until the retention clips snap into place.

STEP 5: Install Motherboard in Case

Install the I/O shield that came with your motherboard into the case. Mount the standoffs in the case that align with your ATX form factor. Place the motherboard on the standoffs and secure it with screws.

STEP 6: Install Storage Drives

Mount your Samsung 980 Pro 1TB NVMe SSD in the appropriate bays or slots in the case. Connect SATA or M.2 drives according to their type.

STEP 7: Install Graphics Card

Remove the appropriate PCI-E slot covers from the case. Carefully insert the NVIDIA GeForce RTX 4080 into the primary PCI-E slot on the motherboard and secure it to the case.

STEP 8: Install Power Supply

Mount the Corsair RM850x 850W 80+ Gold in the designated area of the case and secure it with screws. Connect the 24-pin motherboard power and 8-pin CPU power cables. Connect power to the graphics card, storage drives, and any additional components as needed.

STEP 9: Final Connections & Cable Management

Connect front panel headers (power, reset, LEDs), USB headers, and audio headers from the case to the motherboard. Organize cables for optimal airflow using zip ties or velcro straps.

STEP 10: Power On & Setup

Double-check all connections. Connect power, monitor, keyboard, and mouse. Power on the system and enter BIOS to verify all components are detected. Install your operating system and drivers.

COMPATIBILITY NOTES & RECOMMENDATIONS

Estimated Power Consumption: 515W

Recommended PSU Wattage: 670W

NOTES:

- Always refer to the specific component manuals for detailed installation instructions.
- Handle components by their edges to avoid damage from static electricity.
- Consider using an anti-static wrist strap during assembly.
- Keep all packaging and receipts for warranty purposes.

SUPPORT:

If you need assistance with your build, contact our support team:

Email: support@pcbuilder.com

Phone: 1-800-PC-BUILD

Website: www.pcbuilder.com/support

This PC build guide is provided for reference purposes. PC Builder is not responsible for any damage that may occur during the assembly process.