DESIGN 4: GAMING PC

BUDGET: $3,500.00

BY: WILLIAM HOPKINS

$464.49

INTEL CORE I9-10900K PROCESSOR

- 10 Cores

- Released on April 2, 2020

- Integrated Intel UHD Graphics 630

- 3.7GHz Core Clock Speed

- 5.3GHz Boost Clock Speed

- Supports 128GB of Memory

- Based on the LGA1200 Socket

$129.99

NZXT KRAKEN X52 CFM LIQUID COOLER

- 500-2000 RPM

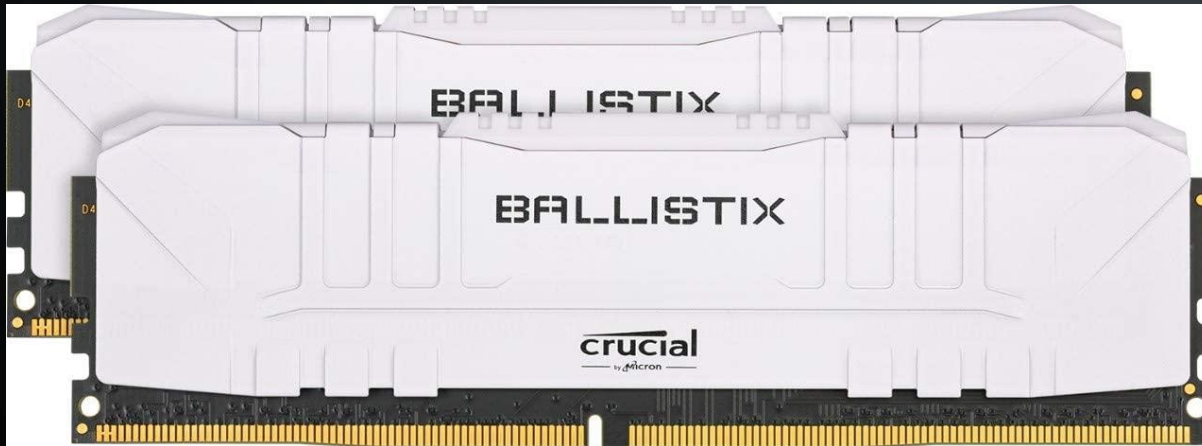- 21-36 dB

- Customizable Screen with RGB

$229.00

NZXT N7 Z490 ATX MOTHERBOARD

- LG1200 Socket

- Intel Z490 Chipset

- Supports 128Gb of Memory

- WiFi 6 Capable

- 2 PCI-E x16 Slots

- 3 PCI-E x1 Slots

$169.57

BALLISTIX MEMORY

- Made by Crucial

- PC4-256000 Rating

- 3200MHz

- 2 16GB Sticks

$199.99

SAMSUNG 980 PRO

- 1TB Internal Solid State Drive (SSD)

- Read speeds of 7000 MB/s

- Write Speeds of 5000 MB/s

- 1 GB DDR4 SDRAM Cache

- PCIe x4 Gen 4.0, M.2 Interface

$749.99

ASUS GEFORCE RTX 3070

- Runs at 1500MHz

- 3 Display Ports

- 2 HDMI Ports

- Connects Via PCIe x16

- 8GB of GDDR6 Memory

- NVIDIA Chipset

$99.99

NZXT H710I ATX CASE

- Tempered Glass Side Panel

- 1 USB-Type C Ports

- 2 USB-3.2 Type A Port

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$154.99

EVGA SUPER NOVA POWER SUPPLY

- 850W of Power
- Rated at 80+ Gold
- ATX Form Factor
- Fully Modular with a Built in Fan
- 2 EPS connectors
- 6 PCIe 6+2 Pin Connectors
- 9 SATA Connectors
- 4 4-Pin Peripheral Connectors

$179.99

WINDOWS 10 PRO

- USB Installation

- Sold By [Newegg](#)

- 64-BIT

$34.99

CORSAIR AF140 FAN

- 1152 RPM

- Allow 62 CFM of Airflow

- White LED Lighting

- Comes in a 2-Pack

$686.44

27" ACER XV273K

- 3840 X 2160 4K Resolution

- 144Hz Refresh Rate

- 1ms Response time

- 400 cd/m_2 Brightness

- Free sync & G-Sync Compatible

- 1 DisplayPort connection

- 1 HDMI Connection

$122.10

LOGITECH G513 CARBON KEYBOARD

- Wired Connection

- Mechanical keyboard

- Individually Customizable RGB Keys

- USB Path through Port

- Designed for Gaming

$103.99

LOGITECH G900 WIRELESS MOUSE

- Optical Mouse with RGB

- Wireless Design

- 11 Programmable Keys

- 200-12000 DPI Selection range

- Designed for Gaming

$179.99

CORSAIR VIRTUOSO HEADSET

- Wireless Gaming Headset

- RGB Included

- Supports 20Hz-40kHz

- Built in microphone

- 7.1 Channels

- USB 2.0 Connection

Pre-Built PC Comparison

After looking at the specific components side by side, my recommendation would be to build your own.

Specification List	Pre-Built	My Build
Processor	Intel i7-10700KF	Intel i9-10900K
Cooling	Liquid Cooling	Liquid Cooling
SSD	512 GB NVMe	1 TB NVMe
HDD	2 TB 7200rpm	None
Memory	32 GB	32 GB
Graphics Card	RTX 3070	RTX 3070
Keyboard & Mouse	Included	Included
Windows 10 Pro	Purchased Separate	Included
Monitor	Purchased Separate	Included
Headset	Purchased Separate	Included
Total	$3543.04	$3498.39

PART PRICE AND DESCRIPTION TABLE

Part	Wattages	Quantity	Price
CPU	15W - 125W	1	$464.49
CPU Water Cooler	10W – 15W	1	$129.99
Motherboard	17W – 70W	1	$229.99
RAM	58W	2	$169.57
M.2 Boot Drive	2W – 10W	1	$199.99
Graphics Card	55W - 220W	1	$749.99
Case	-	1	$99.99
Power Supply	-	1	$154.99
Windows 10 Pro	-	1	$179.99
Case Fans	2W - 10W	2	$34.99
Monitor	-	1	$686.44
Keyboard	-	1	$122.10
Mouse	-	1	$95.88
Headset	-	1	$179.99
Total	508W		$3,498.39

ARE THERE ANY QUESTIONS?