Guide #1: Trading Rig Setup & Hardware Essentials

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TRADING RIG SETUP GUIDE

Purpose

A complete hardware and software checklist for building a professional, reliable trading workstation from scratch. This guide ensures zero downtime, redundancy, and the speed needed for live education and multi-asset monitoring.

Core Hardware Requirements

Computer / Processor
- Minimum: Intel i7 / AMD Ryzen 7 (recent generation)
- Recommended: Intel i9 / AMD Ryzen 9 for multitasking and encoding
- RAM: 32GB minimum (64GB ideal for heavy multitasking)
- Storage: 1TB+ NVMe SSD for OS and applications
- GPU: Optional but helpful for video encoding (NVIDIA preferred for CUDA support)

Monitors
- Three 27" monitors (or 24" if space limited)
- 144Hz refresh rate preferred for smooth charting
- IPS panels for accurate color and viewing angles
- Stands with height/tilt adjustment

Internet & Backup
- Primary: Fiber or cable broadband (100+ Mbps download/upload)
- Backup: Mobile hotspot or secondary ISP (LTE/5G capable device)
- Modem: Dual-band router with stable 2.4GHz and 5GHz bands
- UPS: Uninterruptible Power Supply (1500VA+ for rig + peripherals)

Peripherals
- Webcam: 1080p minimum, USB 3.0+ connection
- Microphone: USB or XLR condenser mic with pop filter
- Headphones: Closed-back for monitoring audio during streams
- Keyboard & Mouse: Mechanical keyboard recommended for reliability
- Stream Deck or macro controller: For one-button scene switching and alerts

Camera & Streaming Gear (Optional but Recommended)
- Professional camera (e.g., Canon M50, Sony a6400)
- Capture card: CamLink or similar (if using external camera)
- Professional lighting: Key light + fill light + back light
- Green screen: Optional for chroma keying

Software & Accounts (Free or Included)

Operating System
- Windows 11 Pro recommended
- macOS alternative (less common for trading platforms)

Core Trading Platforms
- TradingView (web-based, free or premium)
- NinjaTrader (free platform, paid for advanced features)
- Tradovate (retail/prop trading access)

Streaming & Recording
- OBS Studio (free, open-source)
- Streamlabs OBS (free, user-friendly alternative)

Communication & Chat
- Discord (free)
- YouTube (free account for hosting live streams)
- Slack (optional, for team coordination)

Development & Automation
- Python 3.11+ (free, open-source)
- Visual Studio Code (free code editor)
- Postman (free API testing tool)

Setup Sequence (Step-by-Step)

1. Hardware Assembly
   - Install OS and drivers (chipset, GPU, network)
   - Connect all monitors, peripherals, and internet
   - Test all devices and connections
   - Set up UPS and backup internet failover

2. Install Core Software
   - TradingView, NinjaTrader, Tradovate
   - OBS Studio (test camera and audio)
   - Discord and YouTube accounts verified

3. Install Development Tools
  - Python (verify installation with "python --version" in terminal)
  - Visual Studio Code
  - Required Python libraries (requests, tweepy, etc.)

4. Network Configuration
  - Test primary internet speed (speedtest.net)
  - Verify backup internet connectivity
  - Configure router for consistent IP (helpful for API firewall rules)
  - Set up DNS (e.g., 1.1.1.1 Cloudflare for reliability)

5. Security & Backup
  - Enable Windows Defender or third-party antivirus
  - Enable Windows Firewall and configure exceptions
  - Set up automatic backups (Windows Backup or cloud sync)
  - Create system restore point before installing trading software

6. Audio & Video Testing
  - Test microphone levels in OBS
  - Test camera and lighting with OBS
  - Record a 30-second test video
  - Verify audio/video sync and quality

7. Final Checks
  - Confirm all three monitors display correctly
  - Verify Stream Deck or macro controller responds
  - Test backup internet failover
  - Check UPS battery health

Best Practices & Maintenance

Daily
- Verify internet connection before trading/streaming
- Check that all trading platforms are responsive
- Monitor CPU and RAM usage (Task Manager/Activity Monitor)
- Test microphone and camera before going live

Weekly
- Review system logs for errors
- Clear temporary files and caches
- Test backup internet connection
- Verify all API connections are live

Monthly
- Update OS and all software
- Check UPS battery status
- Clean dust from cooling vents
- Back up critical configuration files

Troubleshooting Quick Reference

No video signal on monitor: Check cables, restart monitor, verify GPU driver.
Audio cutting out: Update audio drivers, reduce sample rate in OBS, check USB connection.
Latency/lag on charts: Close background apps, restart trading platforms, check internet speed.
Stream encoder dropping frames: Lower resolution/bitrate in OBS, check CPU usage, reduce scene complexity.
API/connection errors: Verify firewall rules, check API keys, restart router.

Summary

A professional trading rig is the foundation for reliable live education, multi-asset monitoring, and seamless streaming. Invest in quality hardware upfront, follow the setup checklist, and maintain regularly. This rig will power your AI Trading Futures show for years to come.

Next Steps

Review this checklist with your IT support or technician if you're not comfortable with hardware assembly. Test all streaming capabilities in OBS before going live. Keep spare cables, adapters, and a backup monitor available.

Trade safe, stream reliably, and let your AI team handle the analysis.