This $60 chip fixes a longstanding Super Nintendo flaw

Nintendo sold over 49 million Super Nintendo consoles, but not all of them were created equal. A later hardware revision improved the quality of the SNES's video output, and over three decades later, one modder has come up with a way to bring those same improvements to nearly every Super Nintendo ever released.

Zach Henson, a console modder who also goes by the name Voultar, has created a DIY modification kit for older Super Nintendo consoles called the Edge Enhancer. Expected to sell for around $60, the mod kit upgrades the console's video output, making graphics appear much sharper and colors more saturated.

Although Nintendo made many revisions to the Super Nintendo's hardware during the console's production run, for retro gamers, there are essentially two versions of the SNES that matter. The original, which is now referred to as the SHVC or two-chip model, and an upgraded version that came later, known as the 1CHIP model based on how Nintendo labeled its motherboard.

The two-chip SNES featured a video digital to analog converter in its picture processing unit (PPU) that gamers have since discovered wasn't able to quickly transition between different colors. This resulted in video output that tended to look soft or blurred because the graphics appeared to have a halo or shadow around them.

The problem wasn’t as noticeable in the ’90s when everyone played on CRT TVs, but with a Super Nintendo connected to a modern display, the differences are more prominent.

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For the later 1CHIP version of the Super Nintendo, the company merged the original’s two video chips and CPU into a single chip. It was a cost-cutting move to make it cheaper to manufacture the console, but the new components also resulted in video output that was much sharper with noticeably improved colors.

For retro gamers who prefer to play on original hardware, the 1CHIP Super Nintendo consoles are now very much sought after and can sell for well over $200. But demand could soon be waning, thanks to this new upgrade kit.

Installing Voultar’s Edge Enhancer mod isn’t for beginners, as Tito Perez from YouTube’s Macho Nacho Productions recently demonstrated in a video. Not only does the SNES have to be completely dismantled, but there’s quite a bit of soldering required, and you have to remove the original transistors, capacitors, and resistors from the console’s motherboard.

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A lot could go wrong when installing the various components needed for the mod. So while Voultar plans to eventually sell a DIY Edge Enhancer kit once the documentation and tutorials are finalized, it will initially only be available as part of a more expensive installation service that will ensure the

upgrades are done correctly.

Pricing hasn’t been revealed just yet, but given that 1CHIP Super Nintendo consoles are becoming increasingly rare, the Edge Enhancer mod could still be much cheaper, even with the cost of shipping a Super Nintendo’s motherboard off to be upgraded.

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