

Sony's PSVR2 teardowns reveal how the headset tracks the Sense controllers

The PlayStation VR2 headset can track the accompanying Sense controllers thanks to a bunch of IR LEDs hidden in the orb-shaped controllers, according to new teardown videos Sony posted Tuesday evening.

Under the Sense controller cover, the controller itself has a ring of 14 IR LEDs and three placed elsewhere for tracking, as shown in the Sense teardown video. "These infrared lights are used by the VR headset's tracking camera to detect the controller's position and orientation," Sony's Takeshi Igarashi, who also designed the DualSense controller, explains in the video. "The LEDs have been placed in optimal locations to ensure they are accurately detected no matter what direction the controller is facing." And the cover on the controllers is even made with a material that "transmits the infrared light emitted internally to track the movement of the controller," he says.

The Sense teardown video also shows the five capacitive touch sensors on the controller, a look at the adaptive trigger component (which works like it does on the DualSense), and even that there are tiny PlayStation button icons embossed on the controller.

And for the headset itself, that teardown is pretty cool, too; I loved watching Takamasa Araki, the lead designer of the PSVR2 (and the first PSVR!), expertly disassemble both the front of the headset and the headband. I'd particularly recommend scrubbing to 6:07 or so, where you can see what it looks like on the inside of the headset when you turn the lens adjustment dial. Oh, and the headset's eye tracking feature?

As shown by Araki, there's an IR LED around each lens and an IR camera that captures the light from the LED, and those work together to follow your eye's movements. Super cool.

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I really recommend you watch both the headset and the controller teardowns, they're fascinating. However, Sony warns that you should not try the teardowns yourself, noting that taking apart your hardware will invalidate the warranty.

<https://www.theverge.com/2023/2/14/23600295/sony-playstation-vr2-psvr2-teardowns-headset-sense-controller>