

SlimeVR Trackers Technical Specification



SlimeVR is a set of devices that use IMU (Inertial Measurement Units) to track user's body pose for use in motion capture and virtual reality for gaming and media creation.

Information in this document applies to following products:

Product Name	Part Numbers
SlimeVR Full-Body Tracker	SLIMEVR-FBT-TRACK, SLIMEVR-FBT-TRACK-W, SLIMEVR-FBT-TRACK-B, SLIMEVR-FBT-TRACK-P, SLIMEVR-FBT-TRACK-*
SlimeVR Full-Body Tracker Extension	SLIMEVR-FBT-TRACK-EXT, SLIMEVR-FBT-TRACK-EXT-W, SLIMEVR-FBT-TRACK-EXT-B, SLIMEVR-FBT-TRACK-EXT-P, SLIMEVR-FBT-TRACK-EXT-*
SlimeVR Full-Body DIY Tracker	SLIMEVR-FBT-DIY-TRACK
SlimeVR Full-Body DIY Tracker Extension	SLIMEVR-FBT-DIY-TRACK-EXT
SlimeVR Lower-Body Set	SLIMEVR-FBT-LBS, SLIMEVR-FBT-LBS-W, SLIMEVR-FBT-LBS-B, SLIMEVR-FBT-LBS-P, SLIMEVR-FBT-LBS-*
SlimeVR Core Set	SLIMEVR-FBT-CS, SLIMEVR-FBT-CS-W, SLIMEVR-FBT-CS-B, SLIMEVR-FBT-CS-P, SLIMEVR-FBT-CS-*
SlimeVR Enhanced Core Set	SLIMEVR-FBT-ECS, SLIMEVR-FBT-ECS-W, SLIMEVR-FBT-ECS-B, SLIMEVR-FBT-ECS-P, SLIMEVR-FBT-ECS-*
SlimeVR Full-Body Set	SLIMEVR-FBT-FBS, SLIMEVR-FBT-FBS-W, SLIMEVR-FBT-FBS-B, SLIMEVR-FBT-FBS-P, SLIMEVR-FBT-FBS-*
SlimeVR Deluxe Tracker Set	SLIMEVR-FBT-DTS, SLIMEVR-FBT-DTS-W, SLIMEVR-FBT-DTS-B, SLIMEVR-FBT-DTS-P, SLIMEVR-FBT-DTS-*
SlimeVR DIY Kit – Full-Body Set	SLIMEVR-FBT-DIY-FBS

As well as combinations thereof.

Specifications

- Microcontroller: ESP8266, processor: Tensilica LX106, clock frequency: 80 – 160Mhz, RAM: 64kB, flash storage: 96kB
- Wireless communications: 802.11 b/g/n standard, 2.4Ghz

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- Operating voltage: 3.0V – 4.2V
- Power: USB-C input 5V 0.5A
- Battery: Li-Po 803443 1200mAh 3.7V
- Operating temperature: 15 – 40°C

Wireless specifications

- Frequency Range: 2412 ~ 2484MHz
- Antenna: PCB Antenna
- Transmit Power:
 - 802.11b: 16±2 dBm (@11Mbps)
 - 802.11g: 14±2 dBm (@54Mbps)
 - 802.11n: 13±2 dBm (@HT20, MCS7)
- Receiving Sensitivity:
 - CCK, 1 Mbps: -90dBm
 - CCK, 11 Mbps: -85dBm
 - 6 Mbps (1/2 BPSK): -88dBm
 - 54 Mbps (3/4 64-QAM): -70dBm
 - HT20, MCS7 (65 Mbps, 72.2 Mbps): -67dBm
- Security: WEP/WPA-PSK/WPA2-PSK

Specifications can be updated to equivalent without notifications of consumers or change of parts numbers. The most recent version can be requested via email support@slimevr.dev. Last update: January 1st, 2023.