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
SlimeVR Full-Body Tracker V1.2	SLIMEVR-FBT-TRACK-12, SLIMEVR-FBT-TRACK-W-12, SLIMEVR-FBT-TRACK-B-12, SLIMEVR-FBT-TRACK-P-12, SLIMEVR-FBT-TRACK-*-12
SlimeVR Full-Body Tracker Extension V1.2	SLIMEVR-FBT-TRACK-EXT-12, SLIMEVR-FBT-TRACK-EXT-W-12, SLIMEVR-FBT-TRACK-EXT-B-12, SLIMEVR-FBT-TRACK-EXT-P-12, SLIMEVR-FBT-TRACK-EXT-*-12

SlimeVR Trackers Technical Specification

SlimeVR Full-Body DIY Tracker V1.2	SLIMEVR-FBT-DIY-TRACK-12
SlimeVR Full-Body DIY Tracker Extension V1.2	SLIMEVR-FBT-DIY-TRACK-EXT-12
SlimeVR Lower-Body Set V1.2	SLIMEVR-FBT-LBS-12, SLIMEVR-FBT-LBS-W-12, SLIMEVR-FBT-LBS-B-12, SLIMEVR-FBT-LBS-P-12, SLIMEVR-FBT-LBS-*-12
SlimeVR Core Set V1.2	SLIMEVR-FBT-CS-12, SLIMEVR-FBT-CS-W-12, SLIMEVR-FBT-CS-B-12, SLIMEVR-FBT-CS-P-12, SLIMEVR-FBT-CS-*-12
SlimeVR Enhanced Core Set V1.2	SLIMEVR-FBT-ECS-12, SLIMEVR-FBT-ECS-W-12, SLIMEVR-FBT-ECS-B-12, SLIMEVR-FBT-ECS-P-12, SLIMEVR-FBT-ECS-*-12
SlimeVR Full-Body Set V1.2	SLIMEVR-FBT-FBS-12, SLIMEVR-FBT-FBS-W-12, SLIMEVR-FBT-FBS-B-12, SLIMEVR-FBT-FBS-P-12, SLIMEVR-FBT-FBS-*-12
SlimeVR Deluxe Tracker Set V1.2	SLIMEVR-FBT-DTS-12, SLIMEVR-FBT-DTS-W-12, SLIMEVR-FBT-DTS-B-12, SLIMEVR-FBT-DTS-P-12, SLIMEVR-FBT-DTS-*-12
SlimeVR DIY Kit – Full-Body Set V1.2	SLIMEVR-FBT-DIY-FBS-12

As well as combinations thereof.

SlimeVR Trackers Technical Specification

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
- Operating voltage: 3.0V – 4.2V
- Power: USB-C input 5V 0.5A
- Battery: Li-Po 803443 1350mAh 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

The most recent version of these specifications, as well as compliance declarations and information can be found at https://slimevr.dev/compliance *or requested via email* support@slimevr.dev*.*

Last update: February 26th, 2025.

SlimeVR B.V., The Netherlands Company