

# DevKit-3

## Technical Specifications



Inspired by our Flow 2 system, the 3-module DevKit offers a more flexible and adaptable approach to experimentation and data collection. By employing a design that allows users to customize and install optical modules as desired, researchers can optimize sensor placement for their specific research goals.

### Time-Domain fNIRS

Time-Domain measurements have improved depth sensitivity and reduced susceptibility to artifacts compared to traditional CW-fNIRS.

### Sampling rate

With our industry-leading 3.5ms integration time, we are able to image at a rate of up to 16Hz.

### Output Format and Metrics

#### Standard analyses for included reference tasks

With all Kernel tasks that ship with the system, simple behavioral and brain analyses reports are available.

#### Automated quality control

We offer both a basic and a detailed report on the signal quality of each collected dataset.

#### Data download

Data can be downloaded at various stages of preprocessing as SNIRF files (Shared Near-InfraRed Spectroscopy Format, see [specification](#)). Learn more about how to use DevKit data [here](#).

**3**

Optical modules

Each with

**3**

Dual-wavelength sources  
690 nm / 905 nm

and

**6**

Time-resolved  
detectors

**50+**

Within-module  
channels with

**8.5 - 27 mm**

Source-detector  
separation

Up to

**60 mm**

Between-module channels

**> 100 dB**

Dynamic range



#### Headgear

Custom  
Ships with headband



#### Power Supply

USB-PD  
Delivered over USB-C



#### Data Storage

Data streamed to acquisition  
PC at rate of 75MB/min



#### Optode Style

Modular



#### Power Consumption

15W Max



#### Data Transfer

USB 2.0



#### Weight

0.2 kg



#### Power and data cable

Up to 10' USB-C



#### Laser Classification

Class 1 (FLPPS 21CFR1040.10)