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### Who We Are?

Over 16 years of experience, we have been provided physicians and researchers with our simple powerful systems. We build advanced hardware and software to record wide variety of human and animal physiological signals.

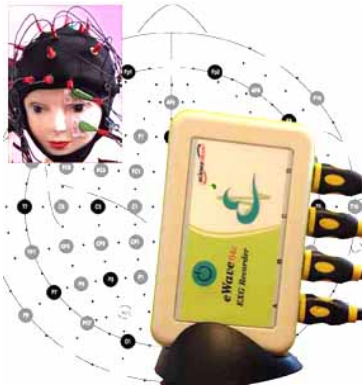
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# What We Do?

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We strive to make your research simple and accurate By providing high quality systems

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## Human Electrophysiology

Multimodal **data acquisition** system plus flexible software:

- **eWave16,32,64:** Event Related Potential (ERP), Brain Computer Interface (BCI) and biomedical signal processing studies
- **eWave8:** neuro/biofeedback therapy
- **eWave4s:** EP-EMG/NCV recording



## Animal Electrophysiology

- Brain and Spinal cord/ Invivo and invitro
- Extracellular recording (LFP, Single unit, ECG)
- Intracellular and Patch Clamp recording
- EXG recording (EEG, EMG, ECG, EOG, Temperature, GSR, BVP, IBP)
- Data acquisition, Amplifier, Electrical & Mechanical Stimulator

# eWave EXG Recorder

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## 16/32/64 channel EXG (EEG, ECG, EMG, EOG) recorder

- > Simultaneously measure wide variety of physiological signals including:
  - > brain waves
  - > muscle tension
  - > heart rate
  - > blood volume pulse
  - > skin conductance
  - > temperature
- > Record any EXG signal type through any of the channels
- > Synchronize and record external events to use for Event Related Potential (ERP)

# eWave Advantages

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## Design Accuracy and Data Quality

We reached to high accuracy in the design of eWave considering these factors:

- > The sample rate of **1000 sample/second** in all the channels gives you better view of the signals with wide frequency range of 0-500 Hz
- > The analog to digital resolution of **24 bit** in all the channels gives 256 times more accuracy than 16 bit current devices
- > The differential amplifiers in all the channels remove the common mode noise
- > DC wide range low gain amplifier prevents saturation during movement
- > Battery power supply prevents power line noise
- > Wireless connection prevents power line noise



## Full Free Accessories

- > Comfortable, easy to clean, 32 channel **eCap** for EEG & EOG recording
- > 10pin single/9pin differential cables for measuring EEG, EMG, ECG, and EOG
- > Four photo diodes for detecting and recording time occurrence of 16 different visual stimulus
- > Blood Volume Pulse (BVP) Head Sensor
- > Skin Conductance Sensor
- > Temperature Sensor

# eWave Advantages

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## Facilities



- Low weight and portable
- Rechargeable battery, 10 hours' work/3 hours' charging
- Low voltage completely safe for humans
- Isolated input ability to work along with charging (32/64 channel)
- Wireless, ten meters
- One year warranty, Five years Service
- Two months full refund

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## Software Distinctions



- Ability to monitor any EXG signal using different display settings
- Ability to record, analyze and replay pure acquired data
- Ability to share data online through **network** with other computers
- Compatible with **MATLAB** and **Labview**
- Flexible and easy to use structure
- Ability to use in **neuro/biofeedback** application

# eWave Specifications

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## Data Acquisition

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Technology	<i>ARM Cortex32</i>
Processor	<i>153MHz</i>
Data Connection	<i>bluetooth wireless, 1.3Mb/s, up to 10 meters</i>

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## Analog to Digital Converter

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Channel numbers	<i>16/32/64</i>	Interface	<i>Serial</i>
ADC resolution	<i>24bit</i>	Isolation type	<i>Optical</i>
Linearity error	<i><math>\pm 7.6ppm</math> (maximum)</i>	Isolation voltage	<i>2500v</i>
Sample rate	<i>1000s/s per channel</i>	Isolation resistance	<i>1000 Giga<math>\Omega</math></i>
Analog input range	<i><math>\pm 2.5v</math></i>		

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## Bio Amplifier

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Channel numbers	<i>16/32/64</i>	Input voltage range	<i><math>\pm 2.5V</math></i>
Amplifier Type	<i>Differential, DC</i>	Maximum analog input voltage	<i><math>\pm 2.5V</math></i>
Gain	<i>60 (maximum)</i>	Input impedance	<i>1000 Giga<math>\Omega</math></i>
Common mode rejection ratio	<i>75dB @ 50/60Hz</i>	Input leakage current	<i>60pA (typical)</i>
Low cut filter	<i>DC, 0.1, 1, 10, 30, 50Hz</i>	Input capacitance	<i>8pF</i>
High cut filter	<i>20, 30, 50, 100, 300, 500Hz</i>		

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## Other Specifications

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Digital output	<i>2</i>	Power Battery	<i>Chargeable, Lithium, 3.7V</i>
Digital inputs	<i>2</i>	Batter Charger	<i>5V</i>
eWave16 Dimension	<i>120 × 28 × 60mm</i>	eWave32 Dimension	<i>155 × 33 × 95mm</i>

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# eLife: Simple Powerful Software

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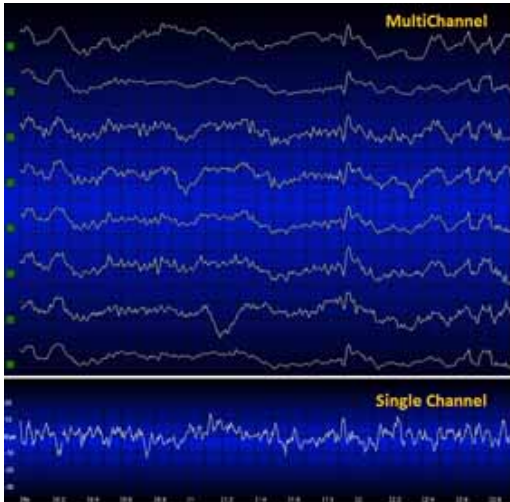
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## eLife, All You Need in One Software

- Monitor and record EXG (EEG, EOG, ECG, EMG) and Blood Volume Pulse (BVP) signals
  - Replay and analyze recorded signals
  - Share data online through **network**
  - Acquire data online/offline in **MATLAB & Labview**
  - Use it for Event Related Potential (**ERP**), Brain Computer Interface (**BCI**) and signal processing research
  - Use it for **neuro/biofeedback** therapy
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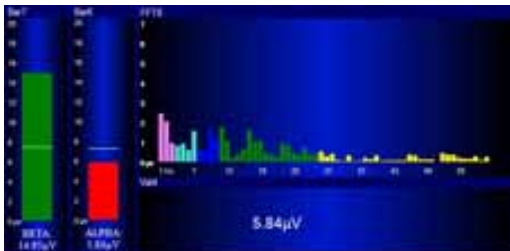
# eLife Powerful Features

## Online real time Signal Visualization



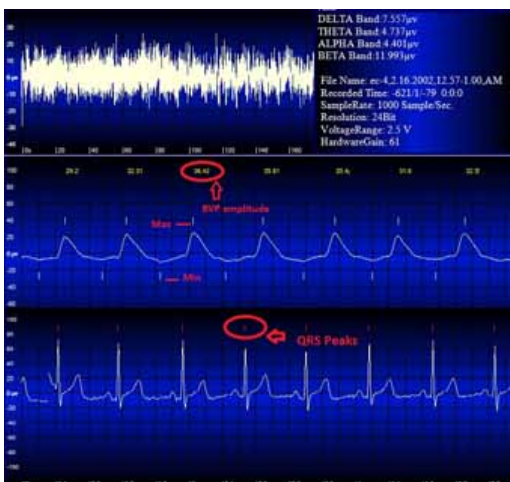
- Multichannel and single channel scopes for online real time monitoring of EXG signals
- Selectable low pass and high pass filters in display settings
- Signal visualization in both time and frequency domain in any specified band
- Online real time input DC offset checking
- Adaptable default display setting for any of the EXG signal types

## Online Real Time FFT Visualization



- Signal quality/artifact monitoring using fft visualization in both graphical bar and text values in any specified band
- EEC band training and fft power tracking

## Powerful Analyzing toolbox



- Post processing/artifact removal using thresholds
- Average fft power calculation of the processed signal in any specified bands
- Online QRS detection, RR interval and HRV calculation, marking and recording for ECG signal
- Online BVP amplitude calculation, marking and recording for BVP signal
- Online developing pressure, maximum and minimum pressure, dp/dt and HR displaying and recording for (Invasive Blood Pressure) IBP signals



# eLife Powerful Features

## High Flexibility and Compatibility



- Online real time data transfer using network sharing (suitable for online data acquisition in another software like Labview and MATLAB )
- Extra recorded data in .mat format, compatible with MATLAB in addition to eLife
- Ability to replay and analyze previously recorded data
- Ability to make software GUI as you like, as many protocols as you want for any of your applications
- Edit any of the panels as you like using drag & drop, copy, paste, delete, Ctrl+z and Ctrl+y options
- Ability to add any text and image you like to make your protocols informative and beautiful
- Ability to display and record external events synchronous with data



## Neuro/Biofeedback Therapy Usability

- Migraine and tension headache reduction
- Stress and anxiety reduction, relaxation training
- SMR, SMR & Theta, Theta/Beta, Gamma, Alpha/Theta Training
- Attention training for ADHD
- Heart rate variability (HRV) training

# Time To Invest In Your Career

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\$5500



eWave8

\$18500



eWave32

- Two Months Full Refund
- One Year Warranty
- Five Years Service
- Full Free Accessories

**Save %5 by Joining Us in Simple EXG**

**Order Now**