



"The holy grail of braintraining:  
-aerobic exercise  
-mindfulness-based meditation  
-controlled attention between tasks"  
-Newsweek, January 3, 2011

mind|ave

Exercise Equipment for Your Mind

## Exercise Equipment for Your Mind

Experts agree that the human brain should be exercised like other body elements. The all-new MindWave™ headset is designed specifically to identify and monitor electrical EEG from brainwaves for use with specially-designed neuroscience relaxation, mental fitness and game applications. The headset complements its older brother, the MindSet, which has been used by leading research institutions and universities throughout the world in ADHD, Alzheimer's and cognitive stress research. NeuroSky ThinkGear technology is found in more EEG devices than any company on the planet.



NeuroSky EEG used in conjunction with Olympic teams in United States, China and Croatia to find "the zone."

## MindWave is EEG for Real People

NeuroSky MindWave headset is our first product available for the consumer market. As a turnkey EEG headset, it uses the same bio-sensor as the Mattel MindFlex, Star Wars Force Trainer, Toshiba MindTune and NeuroSky's research MindSet. It measures brainwave impulses from the forehead from a position neuroscientists call FP1, with research grade precision. These electrical impulses pass through mathematical algorithms to determine mental states such as "attention," "relaxation," and even eyeblinks. Communication with PC and Mac is done via a wireless USB plug-in, where the brainwave algorithms are used to power mental exercise applications specially designed for brain fitness by accredited neuroscientists.

## Brainwave Controlled Applications

There are currently over a dozen games and educational applications available for download on our App Store. Included with the MindWave are six mental exercise applications bundled within the package, a \$100 value: SpeedMath, Meditation Calendar, ZombiePop, Man.Up, MyndPlay and BlinkZone. Each of these apps integrate EEG in a special way. SpeedMath monitors student attention level when learning early-grade arithmetic lessons. MyndPlay is a movie viewing player that uses the mental state of the viewer to determine plot changes in the movie. Meditation Calendar charts mental progress towards a desired state of relaxation over time.

## Our core values are built into each MindWave headset:

- 1) Easy-to-Use
- 2) Non-Invasive
- 3) Single-Dry Sensor
- 4) Untethered Mobility

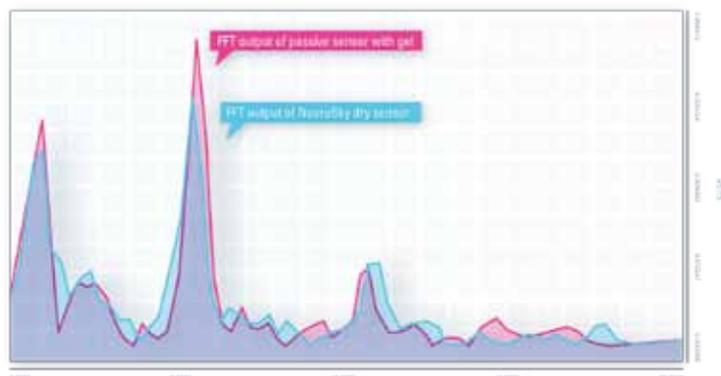


### MindWave Headset

- Research Grade EEG
- Lightweight
- Wireless
- Passive Sensors
- 8-hours of use on one AAA Battery

## Research Grade Precision

As one of NeuroSky's oldest partners, University of Wollongong got a head start with their ADHD research in 2007. They were also the first to publish a white paper comparing NeuroSky EEG to research-grade EEG machines. Their findings demonstrated 90%-96% accuracy, depending on the patient and circumstance. This small accuracy sacrifice comes at a huge cost savings, with NeuroSky EEG under \$200 and the medical grade equipment beginning at \$9K and topping out above \$500K. Other research partners include Stanford University, Carnegie Mellon University, Trinity University, USC, University of Washington and over 150 other institutions.



Neuroscience FFT histogram of \$199 NeuroSky MindSet plotted against a \$40,000 research grade EEG unit yielded 96% accuracy.

## Hardware Overview:

- Portable EEG brainwave headset
- TGAM1 module, with TGAT1 ASIC
- Automatic wireless computer pairing
- Static headset ID
- Single AAA battery
- 6-8 hours battery run time

## EEG Measurements:

- Neuroscience defined EEG power spectrum (Alpha, Beta, etc.)
- eSense meter for Attention
- eSense meter for Meditation
- eSense Blink Detection
- On-head detection

## Specifications

- Weighs 90g
- Sensor arm up: Height: 225mm x Width:155mm x Depth: 92mm
- Sensor Arm down: height: 225mm x width:155mm x depth:165mm
- 30mW rate power; 50mW max power
- 2.420 - 2.471GHz RF frequency
- 6dBm RF max power
- 250kbit/s RF data rate
- 10m RF range
- 5% packet loss of bytes via wireless
- UART Baudrate: 57,600 Baud
- 1mV pk-pk EEG maximum signal input range
- 3Hz – 100Hz hardware filter range
- 12 bits ADC resolution
- 512Hz sampling rate
- 1Hz eSense calculation rate

## Included Software:



### Meditation Journal

Monitor your daily meditation rituals and learn how to develop and hone your relaxation skills.



### Man.Up.

Calmly bounce your way into the skies in this game that guides your relaxation.



### Speed Math

Practice kids' arithmetic skills and improve speed and accuracy by focusing attention.

## Marketing Elements

Strongest PR program of any biosensor company in the world. Past six months achievements include CNN Wolf Blitzer, LA Times Sunday Edition cover story, ESPN Magazine, IEEE, and dozens of other coverage articles.



More information can be found at [www.neurosky.com/news](http://www.neurosky.com/news)

## Physical Packaging

- Package measures 3" x 8" x 10" and showcases the product in use
- Bonus CD contains over \$100 in extra software applications



### Zombie Pop

Exterminate a factory full of deadly Zombies by outthinking these brainless creatures.



### MyndPlay

Determine the plots of movies as your brainwaves control the editing at critical transitions in the screenplay.



### BlinkZone

Increase reflexology as you use eyeblinks to control a mental fireworks display.

# Think about it

It is our duty to preserve brainwaves  
so that we may continue to thrive as humans.

Healthy brains are vital to our family,  
our patients, our students, our planet and ourselves.

Early detection. Frequent exercise. Periodic relaxation.  
Indulgent entertainment. Swift healing.

With our partners, we do this and more.  
That's why at NeuroSky, we make

Brainwave Sensors for Every Body



NeuroSky

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