



National Centre for Physics

Detailed specification Document

A-283

S#	Title of the Project	Specification	A/U	QTY
1.	<p>All-in-One Biosensing R&D Bundle</p> <p>Manufacturer: Open BCI</p> <p>Size: Medium</p> <p>https://shop.openbci.com/products/all-in-one-biosensing-r-d-bundle</p>	<p>Contains following Items including:</p> <p>1. 1x Cyton+Daisy Biosensing Board 16-channel with battery and charger with following specs:</p> <ul style="list-style-type: none"> • 8 differential, high gain, low noise input channels <ul style="list-style-type: none"> • Compatible with active and passive electrodes • Texas Instruments ADS1299 ADC • PIC32MX250F128B microcontroller w/chipKIT™ bootloader • RFduino™ Low Power Bluetooth™ radio • 24-bit channel data resolution • 3.3V digital operating voltage • LIS3DH accelerometer • Micro SD card slot • 5 GPIO pins, 3 of which can be Analog • Daisy 8-channel Add-on Module: <ul style="list-style-type: none"> • 8 differential, high gain, low noise input channels • Compatible with active and passive electrodes • Texas Instruments ADS1299 ADC • 24-bit channel data resolution • Programmable gain: 1, 2, 4, 6, 8, 12, 24 • 3.3V digital operating voltage • +/-2.5V analog operating voltage • Powered by OpenBCI Cyton board • OpenBCI USB Dongle: <ul style="list-style-type: none"> • RFD22301 radio module from RFDigital™ • FT231X USB-to-serial converter from FTDI <p>2. 1x Ultracortex Mark IV EEG Headset Pro-Assembled 16-channel with following specs:</p> <ul style="list-style-type: none"> • 3D Printed EEG Headset • Paired with OpenBCI Ganglion, Cyton, or CytonDaisy board. <p>Required all necessary components</p> <p>3. 1x EEG Headband Kit with following specs:</p> <ul style="list-style-type: none"> • Pack of 0.5m snap cables (Nos =01) • 5mm comb snap Ag-AgCl electrodes (Nos = 08) • Flat snap Ag-AgCl electrodes (Nos = 04) • Earclip cable pair (Nos = 01) • Replacement electrode for earclip cable (Nos = 04) • Velcro headband strap, one-size-fits-all (Nos = 01) • Clip that secures board case to the headband strap (Nos = 01) <p>Required all necessary components</p> <p>4. 2 x Gold Cup Electrodes for EEG/EMG/ECG with following specs:</p> <ul style="list-style-type: none"> • 26 gauge stranded wire • 1-meter or 1.5-meter, color-coded cable • Single female header termination per cable • Insulation = PVC rated to 80°C • Overall cable OD = 1.45mm/0.057" 	Nos	01

		<ul style="list-style-type: none"> • Cup diameter =10 mm <p>Required all necessary components</p> <p>5. 2x EMG/ECG Snap Electrode Cables with following specs:</p> <ul style="list-style-type: none"> • Each pack contains 10 individual cables • 1.0 or 1.5 meter cable • Single female header termination per cable • Insulation = PVC rated to 80°C • Overall OD = 1.45mm/0.057", 26 gauge <p>Required all necessary components</p> <p>6. 2 x EMG/ECG Gel Electrodes pack (can be used for frontal cortex EEG with following specs:</p> <ul style="list-style-type: none"> • Single-use • 35mm across • Diaphoretic • Hypoallergenic • Latex and PVC-free. • Residue-free • Brand: Kendall / Cardinal Health • MSDS (Material Safety Data Sheet) <p>Required all necessary components</p> <p>7. 1 x Dry EEG Comb Electrodes pack with following items</p> <ul style="list-style-type: none"> • (x30) 5 mm Comb Reusable Dry EEG Electrode • Circuit Board Sensor with 3 sewing-holes, for optional affixing to fabric • 24-in Ribbon Cable with Male Header pins • A Velcro Finger Strap for finger-based PPG • An Ear Clip for optional ear-based PPG • Transparent Vinyl Dots for electrical insulation <p>Required all necessary components</p> <p>8. 1 x Pulse Sensor (Heart-Rate Monitor) with following specs:</p> <ul style="list-style-type: none"> • Circuit Board Sensor with 3 sewing-holes, for optional affixing to fabric • 24-in Ribbon Cable with Male Header pins • A Velcro Finger Strap for finger-based PPG • An Ear Clip for optional ear-based PPG • Transparent Vinyl Dots for electrical insulation <p>Required all necessary components</p> <p>9. 1 x Ten20 Paste Jar 8 oz</p>		
2.	<p>All-in-One EmotiBit Bundle Manufacturer: Open BCI</p> <p>https://shop.openbci.com/products/all-in-one-emotibit-bundle?srsltid=AfmBOorbz0HsnvT5-_vJ1t7hoMhUoF258vZ2xaixyE-9492OO6miwih_</p>	<p>16+ biometric data streams: Contains following Items including:</p> <p>1. 1 x EmotiBit MD Board (includes a medical-grade thermopile temperature sensor)</p> <ul style="list-style-type: none"> • PPG sensor • EDA/GSR sensor • 9-axis IMU sensor <p>Required all necessary components</p>	Nos	01

		<ol style="list-style-type: none"> 2. 1 x EmotiBit Essentials Kit 3. 1x Adafruit Huzzah32 Feather 4. 1 x 400mAh Lithium-ion battery 5. 1 x High-speed microSD card 6. 1 x microSD card reader 7. 1 x Micro USB cable 8. 3 x Emoti-stretch straps of different lengths to wear EmotiBit nearly anywhere on the body, ranging from a child's wrist to an adult head 9. 1x EmotiBit Electrode Kit 10. 10 x EDA electrodes (Ag/AgCl) 11. 4 x Solder-cup snaps (to add your own EDA leads) 12. 5 x Emoti-genic covers (provides additional hygienic layer and sweat protection) 13. 1 x FREE, fully open-source, cross-platform data visualizer 		
3.	<p>Item: Eko CORE 500™ Digital Stethoscope (Including Eko App)</p> <p>Manufacturer: Eko Health, Inc.</p> <p>https://www.ekohealth.com/products/core-500-digital-stethoscope</p>	<p>Items included:</p> <ul style="list-style-type: none"> • Eko CORE 500™ Digital Stethoscope with removable Earpiece • Silver — MPN: COR503-SLV, UPC: 850010298788 • Eko+ membership 14-day free trial • 01-year membership for Eko+ App • Access to the Eko App's standard features, including wireless listening, real-time visualization, and single recording and playback • USB-C charging cord • 10 alcohol wipes • Extra ear tips • Quick Start Guide • Protective case <p>Features</p> <ul style="list-style-type: none"> • TrueSound™ technology with in-ear speakers • Full-color LCD display • 3-lead ECG with frequency response range from 0.1-250 Hz • Up to 40x amplification • Active noise cancellation • Bluetooth wireless listening option <p>Power</p> <ul style="list-style-type: none"> • Auto power off • USB-C charging port • Rechargeable lithium-ion battery that lasts up to 300 minutes of continuous use; generally lasts up to 60 hours of regular clinical use <p>Connection & Storage</p> <ul style="list-style-type: none"> • Bluetooth 4.2 low-energy • Patient report in .PDF file format <p>Dimensions & Weight</p> <ul style="list-style-type: none"> • 27 in (69 cm) L from ear tip to chestpiece 	Nos	01

		<ul style="list-style-type: none"> • 6.6 oz (186 gm) • Chestpiece weight: 3.1 oz (88 gm) • Diaphragm diameter: 1.2 in (3.0 cm) <p>Construction & Materials</p> <ul style="list-style-type: none"> • Binaural: TRS jack connector, vinyl tube, and sealed speaker • Chestpiece technology: Single-sided with 3 equally spaced, custom-sized electrodes • Diaphragm material: Silicone • Diaphragm shape: Round • Diaphragm type: Tunable, single-piece • Headset material: Anodized aluminum • Ear tips material: Silicon • IP44 water rating • Does not contain natural rubber latex or phthalate plasticizers <p>Certifications & Licenses</p> <ul style="list-style-type: none"> • FDA Cleared • UKCA Marking • ISO 13485 Certified • MDSAP Certified • HIPAA Compliant • GDPR Compliant 		
4.	<p>Item: cEEGrid Open-cEEGrid Kit</p> <p>Manufacturer: Open BCI</p> <p>https://shop.openbci.com/products/ceegrid?pr_prod_status=c5_desc&pr_rec_id=81fc82403&pr_rec_pid=8423241318640&pr_ref_pid=8925549625584&pr_seq=uniform</p>	<p>Contains the following items:</p> <ol style="list-style-type: none"> 1. 1x adapter 2. 20x connector cables 3. 1x enclosure 4. 1x Baseball cap 5. 1x Headband 6. 15x Pair of Open-cEEGrid Replacement stickers 7. 3x Pair of Gold-Plated open-cEEGrid 8. 1x Alcohol-based Prep Wipes 9. 1x Electrode Gel 10. 2x Blunt Syringe 11. 1x Applicator 12. + FREE Software Included <p>Required all necessary components</p>	Nos	1

Note: All the components installed should be compatible with the system and each other.

Please tick the relevant box .

- Installation
 Testing
 Commissioning
 Training
- Warranty requirement
Any other please specify