eSense Muscle FAQ
(effective 08.02.2022)

Please consider these tips and tricks before you write Mindfield with a technical question!

Contents

General FAQ and Troubleshooting

Question 1: **What is the difference between the private and professional version?**

There are two versions of the eSense Muscle:

- A professional version at full price in which EMG measurements can be performed with 2 channels. Available is the web app, the mobile app for iOS and Android, all games and the oscilloscope.

- A private version at a reduced price with which EMG measurements can be performed with 1 channel. Available is the web app and the games.

While the professional version is aimed at professional biofeedback trainers, the private version is also intended for personal use at an affordable price.

Question 2: **My eSense is not working.**

Please check with at least one other smartphone or tablet device to see if your device is specific for your problem. Please test on an iOS device if possible, as they are known to work fine. For a list of compatible devices please see the pdf document on our products pages (see question 1), under eSense Compatibility (sample list): https://www.mindfield.de/dwnld.php/?download=63.

If the eSense fails on other devices too (strong fluctuation of values with no reactions) and none of the above questions helps to generate a good signal, you can exchange the eSense at the retailer where you purchased your eSense. Please ask the retailer to send the defect device back to the manufacturer.

If you bought the eSense directly at Mindfield, please follow the return procedure (https://www.mindfield.de/en/Support/How-to-return-items-to-Mindfield.html) which you find on our website at „Support" => „Return procedure".

Private Version

Question 1: **Which app / software can I use with the private version?**

With the private version you can use our Web App (web application).

You can access the Web App with a desktop PC (Windows or Mac) or with a mobile device (Android) at https://www.esense-muscle.com. (For iOS, please see our note below)

This always runs in a browser. Open this link (https://www.esense-muscle.com) on your desktop PC or mobile device using Google Chrome, Microsoft Edge or Opera browser (not Mozilla Firefox or Apple Safari).

On this web page, you can then launch the web application and get more instructions on how to use it. You connect the eSense Muscle via Bluetooth in your browser.

There is another exception for mobile iOS devices (iPhone, iPad, etc). On iOS, Web Bluetooth is not supported by Safari. Instead, you need to download the app "eSense Muscle" (https://apps.apple.com/de/app/esense-muscle/id1563762101) from the Apple App store, which is a stripped-down version of a browser. It will take you directly to our Web App after startup.

You can also find more information about the web app in our eSense Muscle manual.

Professional Version

How do I perform effective biofeedback-training?

How does the App work?

How do I use my own audio or video?

How should I interpret the measurements?

Please see our extensive tutorial online at www.mindfield.de/en/ on our pages for eSense products:

www.mindfield.de/en/eSense-Muscle

Read the guidelines inside the app, when tapping the "I" button.

For data files which you can load as own media into the eSense App, the general limitations by Android and iOS apply. We have successfully tested the following:

- Images: PNG and JPG (GIF can be loaded but isn't animated)

- Audio: MP3, WMA and WAV (Android) and MP3, WAV and AAC (iOS)

- Videos: MOV, MP4 and 3GP (Android) and MOV, MP4 and M4V (iOS)

- If your audios or images are in other formats you simply can convert the files on your computer. Just use a free tool like Free Audio Converter (https://www.freemake.com/free_audio_converter/) or Free Video Converter (https://www.freemake.com/free_video_converter/)

You can use your own pictures in the picture module, your own videos in the video module or your own music or melodies in the audio module in the procedures.

Android usually enables this without any further problems. As long as you allow the eSense app to access your files on your device, you can upload them to the eSense app.

iOS is a bit more restrictive. As usual, you can use your pictures from your device in the iCloud for pictures and videos.

For audio files you need iTunes (or an alternative such as "CopyTrans Manager"). This is where your music or melody must be. You can find your music in iTunes (or CopyTrans Manager) under the tab "My Sound" and insert it into your procedures.

We have a detailed video at https://www.youtube.com/watch?v=A_CRbmBeBBc where we show all the steps.

On **iOS**, the **power saving mode** must also be deactivated, otherwise the videos in the procedures cannot be played.

Another tip: You can also directly download videos from YouTube and format them to suitable format (MP4) with tools like

- https://notube.net/en (Desktop)

- https://snaptube-video.en.softonic.com/android (Android)

- https://apps.apple.com/de/app/video-saver-pro-cloud-drive/id1297144302?l=en (iOS)

- If you already use the messenger Telegram, you can also download YouTube videos with a Telegram bot https://blog.getphp.ir/en/2019/09/youtube-downloader-with-telegram-bot/ (Android and iOS)

More additional information:

https://developer.android.com/guide/appendix/media-formats.html

https://stackoverflow.com/a/1535876

Question 1b: **Which App do I need and where can I download it?**

You need the eSense Universal App which is available for free for Android and iOS.

You can download the App here:

Android: https://play.google.com/store/apps/details?id=com.mindfield.esense

iOS: https://itunes.apple.com/us/app/mindfield-esense/id1141032160?mt=8

Question 2: **Can I use the eSense with my device?**

Please see the PDF document on our products pages (see question 1), under eSense Compatibility (sample list): https://www.mindfield.de/dwnld.php/?download=63.

Question 2b: **Which iOS devices are supported? Does the eSense work with an iPhone 7, iPhone 8 or iPhone X?**

In general, the eSense works with All iOS devices from version 12.5 or higher, which are (in part):

- Apple® iPhone® 5S, iPhone® 6 / 6S, iPhone® SE / SE 2, iPhone® 7/7 +, iPhone® 8/8 +, iPhone® X, iPhone® XR, iPhone® XS, iPhone® 11/11 Pro, iPhone® 12/12 Pro

- Apple® iPad® from 5th generation (iPad Air) or newer, including all iPad Mini from 2nd generation
- Apple® iPad® Pro from 1st generation or newer
- Apple® iPod Touch® from 6th generation or newer

Note: Some newer iOS devices without the classic 3.5mm headphone jack and with the newer Lightning / USB-C connector also work perfectly with the eSense. You either need an original Apple USB-C (https://amzn.to/2OQYssu) or original Apple Lightning (https://amzn.to/2SJVg37) to 3.5 mm connection adapter (not included in the scope of delivery of the eSense). Alternatively, you also can use any other adapter with a DAC chip. We recommend this adapter on Amazon: https://amzn.to/2SnAUA1.

Question 2c: Which Android Devices are Supported?

- All Android Smartphones and Tablets from Android 7.0 (Nougat) **Your Android device requires a 3,5mm jack (headphone jack) for external microphones!** For Android devices without a headphone jack, you can use an adapter with a DAC chip. We recommend this adapter on Amazon: https://amzn.to/2SnAUA1

- If you plan on purchasing a device for using the eSense, we suggest a Nokia 2.4 (https://amzn.to/3olUjyn), a Nokia G20 (https://amzn.to/35JPDvS), a Motorola Moto E7i Power (https://amzn.to/3GyOh3X) or a Xiaomi Redmi 9a (https://amzn.to/32WHvao) as an inexpensive entry-level device.

Question 2d: My procedures are not synchronized correctly

This is usually due to two reasons:

Android: You need a Google account (Gmail account) which can't be a cooperative account. The same Google account must be used on all devices. Attention: It is not possible to load procedures from a device with a higher Android version to a device with a lower Android version.

iOS: You must have activated iCloud Backup and ensure that the eSense app is in the backup list. On some devices, you can also force the backup so you don't have to wait for the backup to take place. Attention: Technical limitations from Apple unfortunately do not allow the upload (and thus the synchronization) of audio files. The synchronization of picture and video files is possible, however.
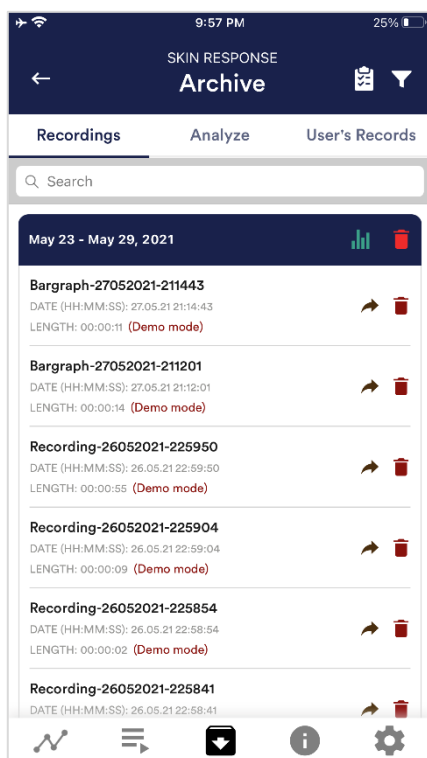
Question 3: How can I process the measured values further, e.g. with Excel?

Please note the PDF-document on our pages (see Question 1):
eSense Streaming and Analysis (CSV, eSense Web App, OSC): https://www.mindfield.de/dwnld.php/?download=187.

You can also create your own apps with our SDK or use our Web App: https://www.mindfield.de/en/Streaming-eSense-data-to-a-PC/Mac/Browser-eSense-Dashboard-OSC.html.

Question 3a: How can I export the measurements?

The app also contains an archive, in which you can save your measurements and export them as well. You can watch those in detail again, compare them to each other and export them individual or all together (as ZIP file).

If you click on the clipboard symbol at the top right, you can mark one, several or all measurements. You can then export, analyze or delete the exported measurement (s).

On the filter symbol you can choose whether you want to sort the measurements by name, date, length in ascending or descending order.

Question 4: The App doesn't find the Muscle

In case of Bluetooth connection problems between the eSense Muscle and your end device, please check the following steps:

1. Is the eSense Muscle charged and ready to use? Is the blue LED lit? Turn the eSense Muscle off once (5s pressure on the black switch 1) and then, when the LED has gone out, turn it on

again by briefly pressing switch 1. Wait approximately 15-20 seconds for the eSense Muscle to start entirely.

2. Is Bluetooth Low Energy (from Bluetooth 4.0) available on your end device? Check the technical data of your PC, smartphone and tablet.

3. Is Bluetooth switched on and ready for operation?

4. The connection between the eSense Muscle is **only** established within the eSense Web App or eSense Mobile App and **NOT** in the Bluetooth settings of your operating system. Please do **NOT** pair the eSense Muscle in the Bluetooth settings of Windows, iOS or Android, because then no access can be made through the web app or mobile app. If you have done so, disconnect entirely.

5. If you still have problems with the Bluetooth connection, please try another device to rule out general issues with your PC, smartphone, or tablet.

Smart Bulb FAQ (Magic Blue Bluetooth bulb and Philips™ Hue™ products), professional version

The FAQ for both smart bulbs, the "Magic Blue" and "Philips Hue" in combination with the Mindfield eSense sensors. **Please consider these tips and tricks before you contact Mindfield with a technical question!**

Image 1: Magic Blue Smart Bulb in a round lamp

Image 2: Magic Blue beside retail packing

Magic Blue FAQ

Question 1: **How do I connect to the Magic Blue?**

You connect to the Magic Blue from inside the eSense app. To connect to the Magic Blue, open the eSense app and follow these steps:

1. Choose the eSense sensor you want to use
2. Choose the 'settings' (cogwheel symbol)
3. Enable the 'Smart bulb feedback' and choose 'Magic Blue' as the bulb type
4. Tab on the 'Choose A Bulb' button and select the bulb from the list that you want to connect to
5. (You can also test the chosen bulb by tapping on the 'Connection Test' button. If the color of the bulb changes by this, the bulb is connected.)

After you have followed these steps, the app will remember the Magic Blue you have chosen (you usually don't need to follow these steps again, unless you want to use another Magic Blue).

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You should not pair the Magic Blue by the device generic Bluetooth settings. (Attention: If you pair your bulb that way, you won't be able to find and select the Magic Blue from inside the eSense app. If you did so by accident, simply un-pair the Magic Blue from the generic Bluetooth settings and follow the steps above).

Question 2: What can I do, if connecting to Bluetooth fails or the Magic Blue is not found?

Restart the Magic Blue (switch the switch of your lamp off and on again). Especially if the Magic Blue is already switched on more than 1 minute, the Magic Blue stops sending the Bluetooth signal to connect. Restarting activates the signal again and the Magic Blue can be found.

Question 3: Why can't I find the device when scanning for Bluetooth devices?

Check the light from the Magic Blue to make sure the Magic Blue is switched on. If there is metal around the Magic Blue (for example a lampshade around the Magic Blue), it could shield the Magic Blue and block the signal.

Make also sure that the Magic Blue is not connected to another phone or tablet already since the Magic Blue can just be connected to one phone or tablet at a time (see also next question).

Question 4: How many Magic Blue bulbs can I control at the same time?

You can control one Magic Blue at the same time.

Question 5: How far can the distance between Magic Blue and phone or tablet be?

Usually the range is 18 to 30 meters without any objects in between. It will be less with objects between the Magic Blue and your phone or tablet (for example a wall between the Magic Blue and the smartphone or tablet can decrease the range).

Question 6: Where can I buy the Magic Blue Bulb?

We suggest our shop at www.mindfield-shop.com/en/product/magic-blue-v2/

Philips™ Hue™ FAQ

Question 1: **Which products from Philips Hue can I use with the eSense app?**

In general, all Philips Hue products are compatible with our eSense App and therefore can be used together with the eSense. We tested the most common products:

- Philips Hue White
- Philips Hue White Ambiance
- Philips Hue White and Color Ambiance
- Philips Hue Go (very nice!)
- Philips Hue LightStrips White and Color Ambiance

For the best experience, we recommend the Philips Hue White and Color Ambience, because with the colors, the feedback can be enhanced more than with only white colors. Especially we recommend using the Philips Hue Go, as it is mobile with battery and a very nice, complete lamp.

Question 2: **How do I connect to the Philips Hue?**

You connect to the Philips Hue products from inside the eSense app. As usual with the Philips Hue products, you need to connect to the Philips Bridge first and then you can choose the individual bulbs.

To connect to the Philips Hue products, open the eSense app and follow these steps:

1. Choose the sensor you want to use
2. Choose the 'settings' (cogwheel symbol)
3. Enable the 'Smart bulb feedback' and choose 'Philips Hue' as the bulb type
4. Tab on the 'Change Hue settings' button
5. Choose the 'Find Hue Bridge' tab in the upper right and then choose the plus icon in the lower right. Follow the instructions.
6. Next you can choose the lamp(s) under 'Hue lamps' in the upper left. You see a list of available lamps and you can choose each with the tick right next to it. Selected lamps light up, deselected turn off.
7. (You can also test the chosen bulb by tapping on the 'Test' button. If the color of the bulb changes by this, the bulb is connected)
8. When you have chosen the bridge and the lamp(s), you can leave the menu by tapping on the tick in the upper right corner. The settings are now saved.

After you have followed these steps, the app will remember the Philips Bridge and Hue bulb you have chosen. You usually don't need to follow these steps again unless you want to use another Bridge or another bulb(s).

Question 3: **How many Philips Hue bulbs/products can I use with the eSense app?**

We have successfully tested up to 9 products/bulbs (mixture of different type of bulbs, Hue Go and LightStripe). However, from 3 products and more the reaction time of the products/bulbs slows down significantly (Philips enables a maximum transfer speed of 100ms per signal and per bulb).

Especially if you use several bulbs, a short distance to the Philips Bridge, the bulbs and your smartphone or tablet becomes more relevant. See also the next question about this.

Question 4: **How far can the Philips Hue, the Hue Bridge and the smartphone or tablet be away?**

Usually the range is between 30 and 100 meter, depending on the environment. The range is less with objects in between (for example a wall in between can decrease the range). Also, if the Hue Bridge and your modem should be in another floor level, it can influence the range.

However, the transmission of the signal by Philips is good enough so that there weren't any problems with our tests in normal households with the signal. Just from 4 (and more) bulbs at the same time a recognizable lag can occur, see also the question above about this.

Question 5: **Where can I buy the Philips Hue products?**

You should find the Philips Hue products in every well-sorted electronic store. You can also order online. A list of the on- and offline-merchants can be also found on the page of the Philips Hue: https://www2.meethue.com/en-us

We suggest one of the starter kits from Philips for the use with the eSense. This also contains a colored bulb ('White and Color Ambience'): https://www.amazon.com/dp/B06Y3QXSGX

We recommend the "Hue White and Color Ambience" for the best experience because with the colors, the feedback can be enhanced more than with only white colors.