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Disclaimer

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Important Instructions

- Once the SMOD pairing has been confirmed, close the control panel, open a window in your browser and go to www.lifeonics.com/smod to download the SMOD software.
- While installing the software, if a Smart Screen warning appears, please click on more information and click the box run anyway.
- If you have a SMOD you want to pair and connect to a PC and it was previously paired and connected to a different PC, please make sure that the previous PC has been shutdown to avoid any connectivity problems.
- SMOD(s) can only connect to ONE laptop or desktop. If using a laptop please do not change its position.

1. Thanks!



Thank you for choosing the SMOD from Lifeonics Ltd. We hope that this unique sensing platform meets your expectations and that you will consider our future innovative products for your scientific needs. Your Smart Measuring Optical Device or SMOD is designed to make your life, as a scientist, easy and enjoyable. No more manual sampling of your bacterial or yeast cultures; just dunk it, then sync it!

This package consists of:

- SMOD
- Charging station
- Protective cover
- AC adapter

2. User documentation



Before operating this device, you must read, understand and follow all instructions, warnings, cautions and legal disclaimers. All documents are available at www.lifeonics.com/SMOD

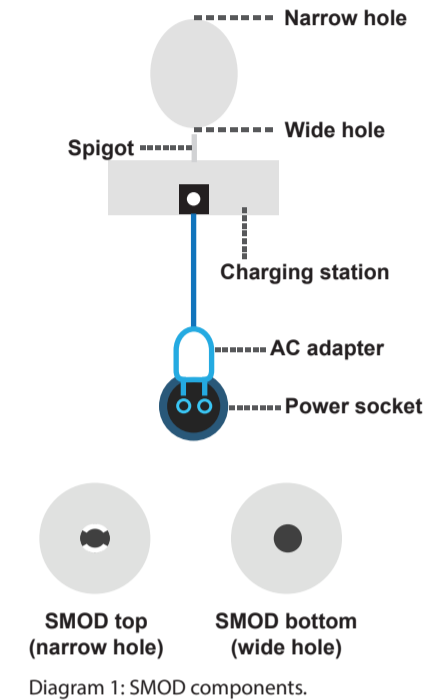
3. Quick Start



3.1 Charging the SMOD

- Upon unpacking, place the SMOD on the charging station and plug it in using the AC adapter.
- Your SMOD has a channel through the middle, which fits on the charging station spigot (see Diagram 1).

- Ensure that the wide hole of the SMOD sits on the spigot. Forcing the narrow hole onto the spigot will damage the product.
- After each experiment, sterilise the SMOD and place it back on the charger prior to the next use.



3.2 Bluetooth™ Pairing



The SMOD needs to be paired and connected with a PC before it can be used. Please refer to the MANUAL for detailed steps. Ensure the SMOD is on the charging station and then follow these steps:

- Go to Windows control panel on your PC.
- Under "Hardware and Sound" click on "View devices and printers" and then click on "Add a device".
- Select the SMOD you want to pair – it will appear as "SMOD" followed by your SMOD's unique ID.
- When prompted, enter the passcode "1234".
- Wait till the dialogue box closes. This may take several minutes.

We recommend that the SMOD is paired whilst on the charging station.

3.3 Software download



The SMOD communicates with your PC via SMOD Control Software. To start using the SMOD follow these steps:

- Visit our website www.lifeonics.com/SMOD
- Download the SMOD Software Installer.
- Run the SMOD Software Installer and the software will open automatically once the installation is complete. In the future you can click on the desktop icon (🔌) and the software will open in your preferred browser.
- First time user: Register as a user. You will also be the administrator and can later add more users.

System Requirements:
> Either use your computer's inbuilt Bluetooth OR an external Bluetooth dongle.
> We support Windows 7 (.NET version 4.5 and above).
> Compatible browsers: Internet Explorer 9 and above, Chrome, Firefox and Edge.

3.4 Set up an experiment



- Please sterilise the SMOD after unpacking. Refer to Tech Note LFNS-SMOD-0.1, which can be downloaded from the website.
- Login with the details used in step 4 of section 3.3.

IMPORTANT: BEFORE STARTING AN EXPERIMENT ENSURE THAT THE BATTERY IS FULLY CHARGED. THIS MAY TAKE UP TO 4h.

- To start an experiment enter the following details:

Enter these details:

- Experiment Name
- Select SMOD
- Select Cell Type

Press Go!

Glow

Select a SMOD from the drop down menu. Click on the "Glow" button to identify the SMOD. A green light will flash from inside the SMOD if the battery is at least 50% charged and a red light if less. An unpaired and disconnected SMOD will NOT Glow.

To maximise sampling time make sure that the SMOD is fully charged before starting an experiment and place the SMOD back onto the charging station after an experiment and sterilisation in preparation of the next experiment.

Take Blank

Place the SMOD gently into a culture flask and cover with medium. Prior to adding the inoculum, place the flask in the incubator and incubate until the medium and SMOD have reached incubation temperature (~15-30 min). Remove the flask for the incubator and place on a stable surface. Then click on the "Take Blank" button (see Diagram 2: 1-4).

Start

After adding the inoculum click on the "Start" button to start taking measurements. You will notice the plot (scroll down the page) populating over time with OD600 and temperature values (see Diagram 2: 4-5).

Abort

Click on the "Abort" button to abort the experiment at anytime.

Download Data

Click on the "Download Data" link to download the data as .CSV file at anytime.

YOU MUST NOT USE ANY SOLVENTS OTHER THAN THOSE DESCRIBED IN THE STERILISATION PROTOCOL. USE OF SOLVENTS SUCH AS ACETONE WILL PERMANENTLY DAMAGE THE SMOD AND CAUSE WARRANTY TO BE VOIDED.

3.5 Sterilising the SMOD



- Transfer the contents of your flask into your preferred vessel.
- Clean and rinse the SMOD in Virkon™ solution for 30 min. After that soak in 70% ethanol and then recharge for further use (see Diagram 3).

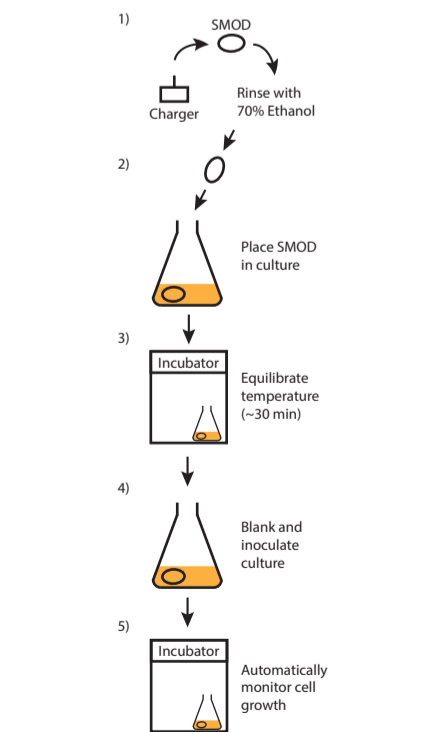


Diagram 2: Starting an experiment

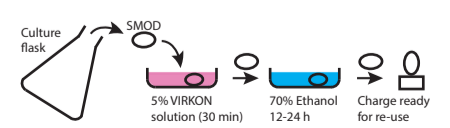


Diagram 3: Sterilisation