



User Manual



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Academic Context

This product was developed as part of the European Project Semester (EPS) programme, an international, multidisciplinary engineering initiative. The project was supervised by academic staff at ISEP and does not constitute a commercially released product.

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Content

Index

1	Introduction to Bloem	page 1
2	Product Overview	page (2-3)
3	How It Works	page 4
4	Daily Use Instructions	page 5
5	Installation	page 6
6	Warranty	page 7
7	Safety Guidelines	page 8
8	FAQ	page (9-10)
9	Contacts	page 11

Introduction to

Bloem

Bloem is a compact relaxation pod designed to bring moments of calm into modern, busy work environments. Whether you need to clear your mind, take a proper breath, or simply step away from the noise of an open-plan office, Bloem provides a private, acoustically shielded space for short breaks during your workday.

The pod supports sessions between 5 and 15 minutes and offers a range of relaxation activities, from guided meditation and breathing exercises to nature soundscapes and gentle stretching prompts, all supported by adjustable RGB lighting and a warm, sustainable interior.

Bloem was developed during the European Project Semester (EPS) 2026 at ISEP, Porto, by an international, interdisciplinary student team committed to sustainable, human-centred design.

Product

Overview



10x Structural wooden beams



10x Wall panels



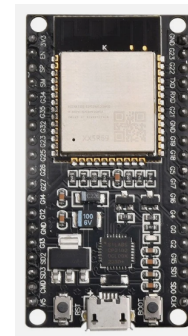
1x Floor Module



1x Cushions & soft components



1x Top Module



1x Eps32



1x Tablet



1x Led Strip



1x speaker

Structure & Materials

- Egg-shaped wooden frame — vertical interlocking ribs, inspired by traditional joinery techniques
- Cork interior lining — provides sound absorption and a warm, tactile surface
- Hemp insulation blocks — dense acoustic barrier wrapped around the exterior of the frame
- Plywood floor — stable base for standing, sitting, or light movement
- Cushioned seating area — soft fabric-covered foam for comfort
- Door with hinges — provides full enclosure and sound sealing when closed
- Ventilation holes — passive airflow channels built into the wooden panels

Smart System Components

- Tablet (mounted on exterior) — used to book sessions, adjust lighting, and select audio
- RGB LED strip — provides fully adjustable, calming ambient lighting inside the pod
- Bluetooth speaker — delivers nature sounds, guided meditations, and breathing cues
- ESP32 microcontroller — receives commands from the tablet and controls all hardware
- BH1750 light sensor — monitors ambient light levels to assist automatic lighting adjustment
- 12V power supply — powers the complete electronic system

How It

Works

Bloem is designed to be completely intuitive. Everything is controlled from the tablet mounted on the exterior of the capsule. No account, login, or prior knowledge is required.

Booking a Session

- Tap the tablet screen to wake the interface
- Select your session duration: 5, 10, or 15 minutes
- Choose a relaxation mode:
 - Nature Sounds — ambient audio without narration
 - Guided Meditation — step-by-step audio meditation
 - Breathing Exercise — paced inhale / exhale audio cues
 - Stretching Guide — gentle movement prompts
 - Silent — lights only, no audio
- Adjust the lighting colour if desired, or leave the default calming setting
- Tap 'Start Session' — the exterior indicator light turns on, showing the pod is occupied

During a Session

- Step inside and close the door — the cork and hemp layers reduce external noise significantly
- Lighting and audio activate automatically when the session begins
- Brightness and volume can be adjusted at any time using the interior panel
- When the session ends, the lighting shifts gently to signal the end
- You can also end early at any time by tapping 'End Session' on the tablet

After a Session

- Leave the door open for at least **5 minutes** to allow fresh air to circulate through the interior before the next user
- The system resets automatically — the pod is then ready for the next booking

Instructions

To get the most from Bloem and keep the capsule in good condition for everyone, follow these guidelines during daily use.

Before Your Session

- Check that the exterior indicator light is off — this confirms the pod is free
- Ensure the interior is tidy before entering
- Do not bring food or drinks inside the capsule

During Your Session

- Close the door fully for maximum acoustic isolation and privacy
- Respect the booked session length — other users may be waiting
- Maximum session length is 15 minutes
- The door is never locked — push it open at any moment to exit

After Your Session

- Leave the door open for at least **5 minutes** after every session — this is essential for air circulation and freshness for the next user
- Report any technical issues (lighting, audio, tablet) to your facility manager
- Do not leave personal belongings inside the capsule

General Guidelines

- Bloem is designed for one user at a time
- Do not attempt to modify the lighting, speaker, or tablet hardware
- Wipe down interior surfaces gently with a dry cloth if needed — avoid all moisture
- Do not lean heavily against the cork-lined walls — cork is a functional acoustic material, not a structural support surface

Guide to the

Installation

Professional installation by our certified technicians is included in the purchase price of every Bloem capsule. Our team will handle all structural assembly, electrical connections, and system commissioning on-site at your preferred location.

To arrange your installation appointment, contact us at info@bloem.pt with your location and preferred dates.

Certified installation is strongly recommended. Improper self-installation may affect structural stability and will void the warranty.

Self-Installation Guide

Before proceeding, ensure all components have been removed from the packaging and identified according to the components list.

(these steps are just for context in case of any desired self maintenance, for any required info send an email to info@bloem.pt)

1. Position the base module on the desired floor location. Ensure the surface is level before proceeding, as the base forms the structural foundation for the entire capsule.
2. Attach the first wooden beam to the designated slot on the base module, securing it firmly until it clicks into position.
3. Connect the top module to the upper end of the wooden beam to provide structural support and define the frame of the capsule.
4. Fit a wall panel by aligning it with the base module, wooden beam, and top module, securing all three connection points. Repeat steps 2 through 4 for each remaining wall panel, working around the capsule until the shell is complete.
5. Install the door by placing it onto the rail on the outside of the base module and sliding it into alignment with the wooden beams. Ensure it moves freely along the rail before finalising the connection.

Warranty

Conditions

This product includes a 2-year limited warranty from the date of purchase.

What the warranty covers

- Defects in materials or workmanship under normal indoor use conditions
- Malfunctions of electronic components (lighting, speaker, microcontroller, sensor) not caused by misuse
- Structural issues arising from manufacturing defects

What the warranty does not cover

- Damage from improper self-installation, unauthorised modifications, or relocation
- Damage caused by exposure to outdoor conditions or excessive moisture
- Normal wear and tear on soft furnishing materials (cushions, fabric)
- Damage to cork or hemp lining caused by misuse or deliberate force
- Electrical damage caused by use of non-approved power sources

Warranty Claim Process

To initiate a warranty claim:

- Contact us at info@bloem.pt with your proof of purchase and a description of the issue
- Our team will assess the claim and may request photographs or an on-site inspection
- If approved, we will repair or replace the affected component at no additional cost

Note: The warranty is valid only for products installed and used in accordance with these guidelines.

Safety

Guidelines

To ensure safe and comfortable use of the Bloem capsule, please follow these guidelines at all times.

- Have the capsule installed by a certified professional
 - Ensures structural stability, electrical safety, and full warranty coverage.
- The door is never locked from the inside
 - You can exit at any moment by simply pushing the door open.
- Leave the door open for at least 5 minutes between sessions
 - Essential for maintaining air quality and freshness inside the capsule.
- Do not block the ventilation holes
 - Adequate passive airflow is essential for user comfort during sessions.
- Do not open or tamper with the electronic components
 - The ESP32, LED strip, power supply, and speaker are low-voltage and safe, but must not be modified.
- Keep the unit connected to power as instructed
 - Disconnecting power mid-session will affect lighting and audio.
- Maximum one user at a time
 - The capsule is designed for individual use only.
- Not recommended for users with severe claustrophobia
 - If concerned, try sitting inside with the door open before a full session.
- Keep away from unsupervised children
 - The capsule is intended for adult workplace use only.

Frequently Asked

Questions

Q: Is the capsule soundproof?

A: Bloem significantly reduces external noise through its multi-layer cork and hemp insulation system. It is designed to provide sufficient acoustic isolation for relaxation in open-plan office environments. Complete silence is not guaranteed, but noise reduction is substantial.

Q: How do I book a session?

A: Tap the tablet screen on the exterior of the capsule, select your session duration and relaxation mode, then press 'Start Session'. No account or registration is required.

Q: What if I need to leave before my session ends?

A: Tap 'End Session' on the tablet, or simply push the door open to exit. The door is never locked.

Q: Why must I leave the door open after a session?

A: Leaving the door open for at least 5 minutes allows fresh air to circulate through the cork and hemp interior. This maintains air quality and ensures the environment stays fresh and comfortable for the next user.

Q: Can I adjust the lights and sounds during a session?

A: Yes. The interior panel lets you adjust brightness and volume at any time during your session.

Q: What happens when the session timer ends?

A: The lighting shifts gently to signal the end of the session. The system then resets automatically and the capsule becomes available for the next booking.

Q: Is the capsule safe for people with anxiety?

A: Bloem is designed to feel welcoming and non-threatening. The door is never locked and opens instantly with a simple push. If you are unsure, try sitting inside with the door open before committing to a full session.

Q: Who installs and maintains the capsule?

A: Installation is carried out by our certified technicians and is included in the purchase price. For ongoing maintenance or repairs, contact info@bloem.pt.

Q: Can the capsule be relocated after installation?

A: Yes, but relocation must always be carried out by a qualified technician. Self-relocation may affect structural stability and will void the warranty. Contact us to arrange this service.

Q: What is the capsule made from?

A: Bloem uses a plywood wooden frame, cork tile interior lining, hemp insulation blocks, and sustainable soft furnishings. All materials are selected for their low environmental impact and long-term durability.

Let's Stay

In Touch

Our website

www.bloem.com

Our e-mail

info@bloem.pt

