iButtons Participant Guide

Provided by: Anna Biller

Date: 10/03/2024

Version: 1.1

Brief introduction

This guide provides detailed instructions for participants on how to use the iButton sensors for body temperature monitoring as part of the study. The iButtons are small, wearable devices designed to record temperature data when attached to your skin.

You will receive two iButtons:

- one proximal (**marked in black**) and
- one distal (**marked in blue**)

when you visit the lab once a month for the Monday morning sessions and have to return them 3 days later Thursday morning for the Thursday session. Please follow these instructions carefully to ensure accurate data collection.
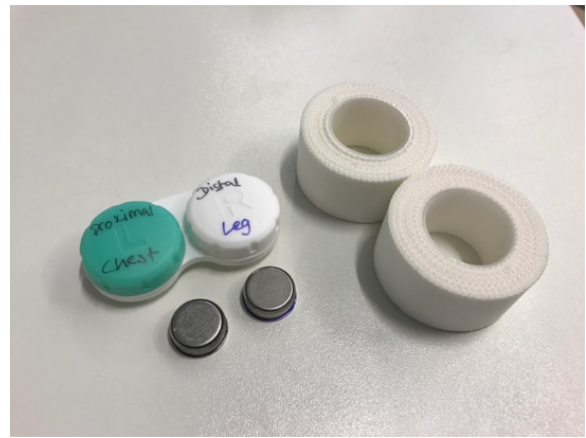
Provided material

- iButton Sensors
  - **1 Proximal iButton (black)**
    - for your **left c**hest
    - beneath the collar bone
  - **1 Distal iButton (blue)**
    - for the on your **left** lower leg
    - halfway between your knee and ankle, besides the shinbone, facing forward

- 2 rolls of adhesive tape

- 1 Contact lens tray with labeled sections for each iButton
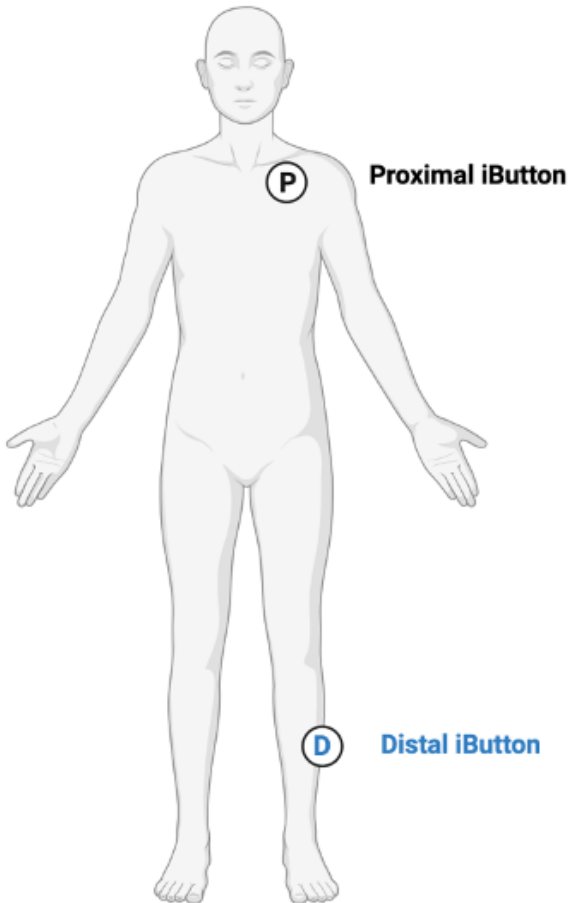
Wearing positions on the body

Provided material issued on Monday morning

How to wear the iButtons?

Preparing the Skin

- Ensure the skin is clean and dry.

- If necessary, shave the positions to ensure the adhesive tape sticks well.

Attaching the iButtons

- Identify proximal and distal on **your left body side**

- Use the adhesive tape

- Make sure the writing on the iButton is facing outwards so that the larger surface is facing your skin

- Ensure each iButton is securely attached and that the tape is flush against the sides of the iButton, leaving no air gap between the tape and your skin.

CORRECT   **WRONG**

Wearing the iButtons

!! The iButtons must not get wet or be submerged in water! !!

- Wear the iButtons as continuously as possible for the period between the Monday morning and Thursday morning (3 days, once a month)

- when taking the light logger off, please place it in the **black velvet pouch** during the day (not at night! since we want to measure your bedroom light

environment during that time)

Before swimming, showering, bathing or sauna:

- Remove the iButtons to prevent them from getting wet, which could damage the devices or affect data collection

- Place each iButton in its corresponding labeled section in the contact lens tray provided

- Log the start of the non-wear time on a piece of paper or or your phone

After swimming, showering, bathing or sauna:

- Dry your skin at the attachment sites

- Re-attach each iButton to its designated area using new adhesive tape like instructed above to ensure it remains secure on your skin

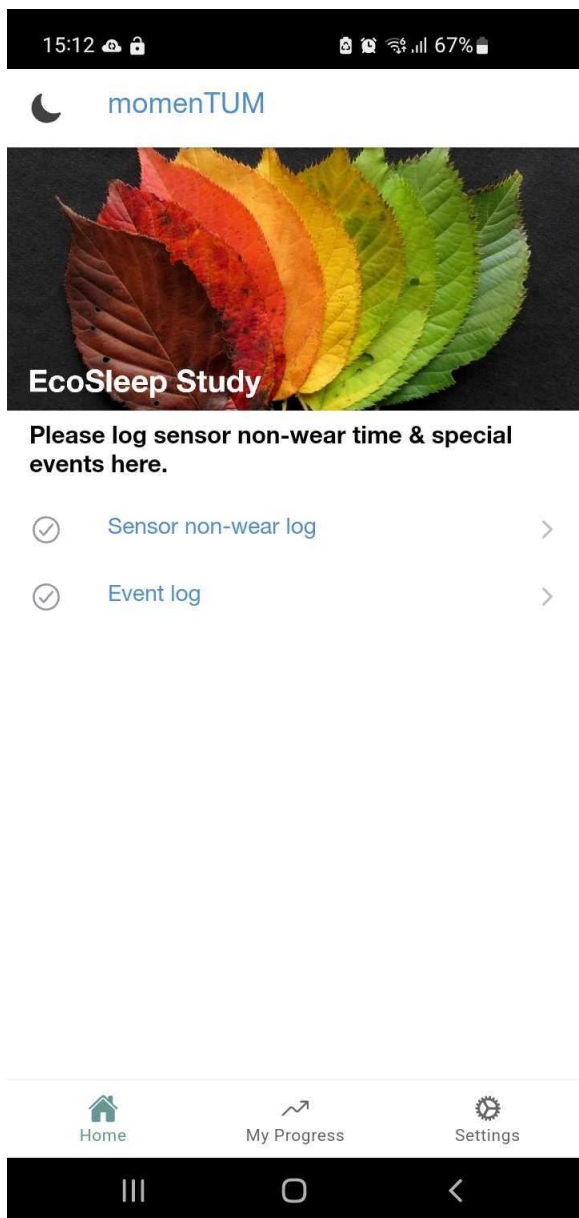- Log the start & end of non-wear time in the momenTUM App

Returning the Equipment

- Wear the iButtons until Thursday morning when you come to the lab

- Make sure to bring the contact lense tray with you

- You will remove the iButtons in the Prevention Centre in the lab Thursday morning

!! **If you experience any skin irritation from the adhesive tape, please inform the study coordinators immediately. You can take the iButtons off and apply some lotion on the irritated place. Place the iButton on the other side of your body and log this event in the momenTUM App.** !!

How to log non-wear time?

- log non-wear time or other events (e.g., skin irritation) in the logbook of the **MomenTUM App** under "non-wear logging" or "event" log respectively

Figure 1 | Log non-wear time here in the Sensor non-wear section of momenTUM

Figure 2 | Log the exact non-wear time for the light logger.

Where to download the momenTUM App for logging-non wear time?

- Apple Appstore:

  https://apps.apple.com/de/app/tum-momentum/id6444047291

- Google Playstore

  https://play.google.com/store/apps/details?id=de.tum.sg.momentum&pli=1