**NON-BIOMEDICAL RESEARCH**

*Sleep Olfactory Interfaces*

You are asked to participate in a research study conducted by Nirmita Mehra, Visiting Student, Judith Amores, PhD Student and Research Assistant, Pattie Maes, professor at the Media Lab, Fluid Interfaces group at the Massachusetts Institute of Technology (M.I.T)*.* The results will be contributed to a research publication ~~Judith’s dissertation.~~ You were selected as a possible participant in this study because, you don’t suffer from any respiratory problems, you don’t have odor allergies, you don’t smoke and you have sense of smell.~~, additionally, if you are doing the language learning study you do not speak Spanish~~. You should read the information below, and ask questions about anything you do not understand, before deciding whether or not to participate.

** PARTICIPATION AND WITHDRAWAL**

Your participation in this study is completely voluntary and you are free to choose whether to be in it or not. If you choose to be in this study, you may subsequently withdraw from it at any time without penalty or consequences of any kind. The investigator may withdraw you from this research if circumstances arise which warrant doing so. Anticipated circumstances under which your participation may be terminated include breakage or malfunction of the olfactory wearable.

** PURPOSE OF THE STUDY**

We would like to test a sleep-olfactory (scent) wearable for human-computer interaction applications.

** PROCEDURES**

If you volunteer to participate in this study, we would ask you to do the following things:

1. You will receive the devices in your home and will be asked to meet over zoom to further explain the experiment. You might do a smell test (20 mins), sign the consent form and learn how to use the device.
2. Wear a Fitbit, Empatica E4 or similar commercial tracking device
3. You might use ~~wear~~ (or not) an olfactory (scent) ~~wearable~~ device.
4. ~~You might need to memorize a set of words for less than 30 minutes.~~
5. ~~We might test your memory recall after the memorization task (while wearing or not the device).~~**~~If you used the device during the day and are doing a full night study you might need to:~~**
6. ~~Take the device to your home, clip it to your bed head/board or your night stand.~~
7. ~~Share a picture of your bed head board/night stand with the prototype (you do not need to be in the picture).~~
8. ~~Keep your pets outside your bedroom. Make sure that if you share bed with someone they do not have odor allergies or respiratory problems.~~
9. ~~Turn on the Essence smartphone application when you are going to sleep.~~**~~Either if you wore the device during the day or not,~~ You might need to:**
10. Wear a Fitbit or similar commercial tracking device while sleeping
11. Sleep at least 7 hours and do not drink coffee or alcohol after 3pm.
12. Return the device/s and fill out the survey/test (while wearing the device or not).

Below are the times, durations and locations of the study chronologically:

Day 1:

1. **Explanation of study**. Time: flexible. Location: MIT Media Lab. Duration: Max 10 minutes.
2. **~~Memorization task~~ Smell test 1**  Time: Flexible, preferred evening/night (after 3pm). Duration: 15 minutes.
3. **Survey ~~& Recall~~** Time: After ~~Memorization~~ Smell test 1 task. Duration: Max 10 minutes.
4. **~~Sleep~~** ~~Location: Your home. Duration: 7 hours minimum (experimenter does not have to be there while you are sleeping)~~
5. **Smell test 2**  Time: Flexible, preferred evening/night (after 3pm). Duration: 15 minutes.
6. **Survey 2** Time: After second task. Duration: Max 10 minutes

~~Return the device/s and phone back.~~

1. **~~Survey & Recall \*~~**~~. Time: Morning (before noon). Duration: Max 10 minutes. Location: MIT Medialab.~~

~~Day 2:~~

1. **~~Memorization task~~** ~~Time: Flexible, preferred evening/night (after 3pm). Duration: 15 minutes.~~
2. **~~Survey & Recall~~** ~~Time: After Memorization task. Duration: Max 10 minutes.~~
3. **~~Sleep~~** ~~Location: Your home. Duration: 7 hours minimum (experimenter does not have to be there while you are sleeping).~~

~~After a week and a month, the experimenter might ask you to respond some questions that won’t take you more than 10 minutes.~~

** POTENTIAL RISKS AND DISCOMFORTS**

If you place the prototype very close to the face, you might feel humidity/small droplets of scented liquid to your face/eyes.

Make sure you keep the recommended distance (25cm/10 inch away from your nose).

The fragrances used are common fragrances that people use such as perfumes, body mists or essential oil.

If you try the device near ~~share bed with~~ someone, make sure that they do not have any allergies to fragrances and don’t have respiratory problems. To prevent any accidental with your pets (such as ingestion or breakage of the device), we recommend keeping your pets away. ~~outside of your bedroom.~~

** POTENTIAL BENEFITS**

The device might enhance breathing exercises and meditation which can lead to relaxation,

anxiety reduction and improved wellbeing. ~~have positive dreams and you might have a good night of sleep. If you are doing the language learning study you will learn some Spanish vocabulary~~.

** PAYMENT FOR PARTICIPATION**

You will receive a gift card with an equivalent value of 30$ after the study completion. ~~(only valid for the memorization test). If you have not done any memorization task you will not be paid.~~

**VIDEO TAPING PARTICIPATION**

We may want to video tape your participation in our study with your permission. ~~(only at the lab, not at home).~~

In case of audio- or videotaped content, you will have the right to review/edit the tapes. They will be used for educational purpose and might be published online to explain the research study and results. Check the boxes bellow that apply:

Yes, I agree to video/audio recording with my identity

Yes, I agree to video/audio recording but only if my image is blurred and identity is not revealed.

No, I don’t agree with any type of video or audio recording.

** CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. In addition, your information may be reviewed by authorized MIT representatives to ensure compliance with MIT policies and procedures. The data collected from the study will be reported and analyzed anonymously. The data will be deleted after publication of a research paper or chapter in dissertation.

** IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact Nirmita Mehra at +1-857-203-0575 or Judith Amores at +1-857-389-4105. Address: 75 Amherst Street, Building E-14, Office 548H.

** EMERGENCY CARE AND COMPENSATION FOR INJURY**

If you feel you have suffered an injury, which may include emotional trauma, as a result of participating in this study, please contact the person in charge of the study as soon as possible.

In the event you suffer such an injury, M.I.T. may provide itself, or arrange for the provision of, emergency transport or medical treatment, including emergency treatment and follow-up care, as needed, or reimbursement for such medical services. M.I.T. does not provide any other form of compensation for injury. In any case, neither the offer to provide medical assistance, nor the actual provision of medical services shall be considered an admission of fault or acceptance of liability. Questions regarding this policy may be directed to MIT’s Insurance Office, (617) 253-2823. Your insurance carrier may be billed for the cost of emergency transport or medical treatment, if such services are determined not to be directly related to your participation in this study.

** RIGHTS OF RESEARCH SUBJECTS**

You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you feel you have been treated unfairly, or you have questions regarding your rights as a research subject, you may contact the Chairman of the Committee on the Use of Humans as Experimental Subjects, M.I.T., Room E25-143B, 77 Massachusetts Ave, Cambridge, MA 02139, phone 1-617-253 6787.

|  |
| --- |
| **SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE** |

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

By signing this consent form, I acknowledge my understanding and consent to the collection, storage and transfer (if applicable) of my personal information to the United States.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Subject

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Legal Representative (if applicable)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Subject Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Legal Representative (if applicable) Date

|  |
| --- |
| **SIGNATURE OF PERSON OBTAINING INFORMED CONSENT** |

In my judgment the subject is voluntarily and knowingly giving informed consent and possesses the legal capacity to give informed consent to participate in this research study.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Person Obtaining Informed Consent

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Person Obtaining Informed Consent Date