

# Smartdays Data Collection Consent

## ***Overview of Study***

Thank you for participating in this study!

The goal of the study is to examine whether wearable devices are capable of automatically recognizing your daily activities and mood. Specifically, we would like to estimate your daily activities (e.g. shopping, eating dinner, socializing, sports, etc.) and mood (e.g. happy, upset, calm, tense, etc.) via sensors from wearable devices (Android smartphone and Pebble smartwatch).

## ***Data Collection and Storage***

In this study you will be asked to conduct your daily activities as you normally would and report them periodically. You will also be periodically prompted to describe your mood with given mood categories.

The data that will be collected are the following:

- Motion: accelerometer sensor logging on your smartphone and your Pebble smartwatch
- Location: GPS coordinates describing the location of your smartphone
- Time: all data will be associated with a time stamp from your smartphone
- Activity Labels: you will be periodically prompted to select your current activity
- Mood Labels: you will also be periodically prompted for your current mood

We may ask you to fill out a brief post-study questionnaire to get your feedback about the study and the system used.

## ***Your Control of What is Recorded***

**Your participation in the study is completely voluntary.** You will be able to turn off logging at any time for any duration. You have the right to withdraw from the study at any time without penalty and you may refuse to answer any questions. If you decide to withdraw from the study, please tell the researchers immediately.

We will explicitly offer you an overview of the data we collect upon request. You will also have the opportunity to review and redact the collected data at the end of the study. Any portion of the data recording and collected survey information that you wish to have deleted will be removed by the study team and verified by you.

## ***Data Confidentiality***

All collected data will be anonymized for personally identifying information before analysis, and before being used in any publication. The data of each participant will be linked by a randomly generated identification during the data analysis.

Only members of the study team will have access to information linking names to the assigned codes and this information will be kept locally on a password-protected computer disconnected from any network and separate from other data.

## ***Risks***

Although we will never directly link your name with the study and will always publish results based on aggregated data, it may be possible for someone to infer a link between your activities and the ones in our dataset.

The study team will take all possible precautions to keep personally identifying information private. Beyond the possibility for you to review and delete any confidential or private data, the study team will also conduct thorough data reviews and will immediately delete any sensitive information if encountered.

Due to the energy consumed by the sensors, you will experience a faster battery consumption rate in your phone. We recommend you to charge your phone whenever possible but also give you the option to temporarily turn off the sensor logging at any time (e.g. while charging your phone while you sleep).

## ***Whom to Contact with Questions or Concerns***

If you have any questions, feel free to contact any of the following researchers:

Andres Perez-Uribe

[Andres.Perez-uribe@heig-vd.ch](mailto:Andres.Perez-uribe@heig-vd.ch)

+41 24 557 7370

Zack Zhu

[zack.zhu@ife.ee.ethz.ch](mailto:zack.zhu@ife.ee.ethz.ch)

+41 44 632 5164

## ***Your Consent***

I understand that by signing this consent form, I give the study investigators listed above permission to collect and analyze my sensor data logs and survey responses. I also permit the study investigators to present this work in written and oral form, without further permission from me, provided that anonymity is preserved. I have read and understood the above information on the purpose of the study, the procedures that will be followed, the use and confidentiality of the data, the freedom to withdraw from the study and to ask questions, and I agree to participate.

Name: \_\_\_\_\_

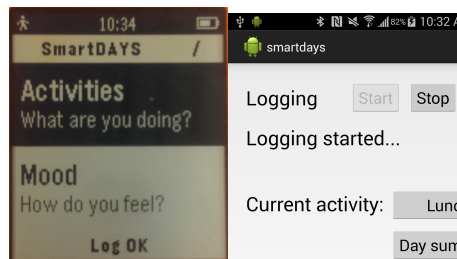
Date: \_\_\_\_\_

Signature: \_\_\_\_\_

# Smartdays Data Collection Protocol

The steps of the study involve interaction with the Smartdays app on your Android phone and Pebble watch. They are as follows:

1. Pick up a provided Android smartphone and Pebble watch with the necessary software configurations. If you would like to use your own phone, please have it set up by the researchers.
2. Begin the study by wearing your Pebble and launching the smartdays application. Please press start in the screen that loads to begin recording. This will launch the corresponding application on your Pebble and prompt you.



**Figure 1: Logger Screens: Pebble app (left), Android app (right)**

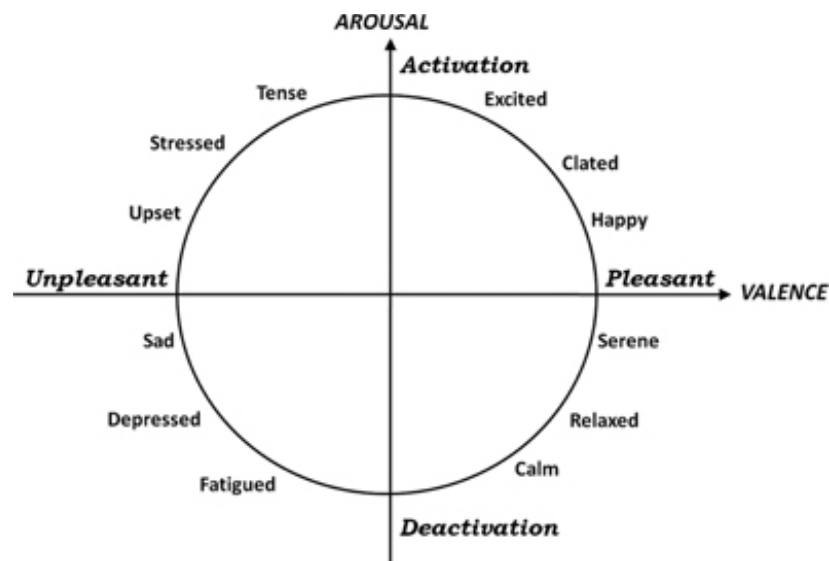
3. Use the top and bottom buttons on the right of the watch to scroll to the corresponding activity and mood. Press the middle button to confirm your selection.  
**NOTE:** You will be prompted to indicate whether you are alone or with others for the activity you are labeling. Please select “with others” if you are interacting with others while conducting the activity.
4. Throughout the study, please label your daily activities by selecting a listed category as you start it (e.g. “Eating/Drinking” when you begin eating). When you transition into another activity, simply select another activity category or select “No Activity” if you want to temporarily skip labeling.
5. You will also be periodically prompted for your mood. Please select a mood category to describe how you feel.
6. At the end of each day, please review the activities you have entered via the day summary button in the Android application. You can edit entries and insert new ones.
7. Through the Android application, you can stop the logging service. This will shut down all sensor collection and terminate the Pebble watch application. At the same time, it will upload existing files on your phone to a web server in HEIG-VD.

## IMPORTANT NOTES:

- **Disconnection:** Please ensure your watch is not disconnected from your phone for an extended period of time (> 30 minutes). If your Pebble is not reconnected

automatically within 15 minutes after a disconnection, please reconnect through the official Pebble app. Then restart the logger by pressing the stop and start buttons in the Android application.

- **Logging ON:** Ensure the person icon is present on the top left of the Pebble screen (as in figure) and the Android icon is present on the top left of the phone (as in figure). If not, please restart the logging service.
- **Wearing Pebble:** Please stop the logging software (from the Android app) when you are not wearing your Pebble watch (e.g. when charging the Pebble).
- **Activity Labelling:** The activity categories are listed at the bottom of this page. Please familiarize with the categories and ask the researcher for clarifications as need. We have included a “No Activity” option for when you are in between activities.
- **Mood Labelling:** The mood categories are listed at the bottom of the page. They are based on a roughly uniform discretization of the circumplex model of affect. It is a two-dimensional model measuring positive-negative feelings on one axis and active-inactive energy level on another:



<b>Moods</b>	<i>Excited; Happy; Relaxed; Tired; Bored; Upset; Stressed; Tense.</i>
<b>Activities</b>	<i>Socializing/Leisure; Eating/Drinking; Shopping; Professional Services; Sports/Active; Work; Commuting; Personal Care; Education; Household; No Activity</i>