

---

**Name of Researcher, Faculty, Department, Telephone & Email:**

David Ledo – Undergraduate Student Department of Computer Science E-mail: <a href="mailto:dledomai@ucalgary.ca">dledomai@ucalgary.ca</a> Phone: 403 210 9499	Miguel Nacenta – Post-Doctorate Fellow Department of Computer Science E-mail: <a href="mailto:Miguel.nacenta@ucalgary.ca">Miguel.nacenta@ucalgary.ca</a> Phone: 403 220 2463	Saul Greenberg - Professor Department of Computer Science Email: <a href="mailto:saul.greenberg@ucalgary.ca">saul.greenberg@ucalgary.ca</a> Phone: 403 220 6087
Nicolai Marquardt – Ph.D. Candidate Department of Computer Science E-mail: <a href="mailto:nicolai.marquardt@ucalgary.ca">nicolai.marquardt@ucalgary.ca</a> Phone: 403 210 9499	Sebastian Boring - Post-Doctorate Fellow Department of Computer Science E-mail: <a href="mailto:sebastian.boring@ucalgary.ca">sebastian.boring@ucalgary.ca</a> Phone: 403 210 9499	

**Title of Project:**

Usability of the Application Programming Interface for the Haptic Tabletop Puck

---

This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

**Purpose of the Study:**

The Haptic Tabletop Puck is a device that looks somewhat like a mouse, except that it is used on a horizontal display (a Microsoft Surface) and provides tactile feedback. The goal of this study is to evaluate the learnability and usability of an Application Programming Interface (API) to the Haptic Tabletop Puck, and to gather your impressions of it.

**What Will I Be Asked To Do?**

We will first collect some basic information about you and your experience in programming and tabletop computers. We will then provide you with some training of the capabilities of the Haptic Tabletop Puck (HTP), and introduce you to our documentation of its Application Programming Interface (API). Next, we will ask you to program a specific set of small applications, in which you can freely interact with the examiner (ask him questions, etc.). At the end of this session you will be video interviewed. Next, you will have the opportunity to create an application of your choosing within two weeks, after which you will have a video demonstration with the experimenter and provide extra feedback on the API. The full process will take approximately three hours with the experimenter. You are free to spend as much time as you like within the two weeks to create the larger application, though we estimate that three hours should be enough. The process will be in the following order:

- Training Session: about 1 hour, with a group of people.
- Programming Session: about 1.5 hours, with the experimenter. You will be recorded for the whole process.
- Creating an application on your own: you are free to work on this part as much as you want, but we suggest scheduling access to the tabletop for about three hours.

- Video demonstration: about 0.5 hours, with the experimenter.

Your participation in this study is voluntary. You are free to withdraw from the experiment at any time without any kind of penalty (you would be allowed to keep \$20 if you fail to accomplish the video demonstration). If you decide to withdraw, the experiment will be interrupted immediately. However, we will reserve the right to keep and use the data collected so far. Successful completion of the experiment will grant you with a total of \$60.

### **What Type of Personal Information Will Be Collected?**

Should you agree to participate, you will be asked to provide basic demographic information, as well as your programming experience and knowledge of tabletops, usability studies, and Application Programming Interfaces (API).

We will take notes as you program. Aspects that we might write down include: questions asked, parts where you seem to struggle the most, behavioural patterns, etc.

We will also record your task programming in the presence of the experimenter, along with the final interview and your demo via video.

### **Are there Risks or Benefits if I Participate?**

There are no known harms or risks associated to the participation in this study. If you participate you will receive a compensation of \$60 for your time. You will also have the opportunity of using a state-of-the-art interface facility and to learn about interface research.

### **What Happens to the Information I Provide?**

The researchers will record your interaction with the computer, your responses to the questionnaires that you complete, and your interaction with the tool. Only the researchers will have access to the full recordings and the responses that you provide.

This information will be kept in a secure location (locked cabinets and password-protected discs). The information that we collect will not be associated to you personally, however, the researchers will publish the results of their analysis of your data in anonymized form in academic journals and conferences. This information will also be used as part of an undergraduate project.

Please note that because the training session will take place in a group, the other participants in the group will know that you are participating in the study.

The researchers might quote the responses in the questionnaires or any of your comments or the code you produce in anonymized form, and they may use segments of the recording in research presentations and publications. Please check the boxes below to confirm that you understand this use of your data. Obviously, if you do grant permission for the publication of photographs or video clips there can be no meaningful guarantee of anonymity from the researchers and you may be clearly identifiable in such publications or presentations. Please note, that once images are displayed in any public forum, the

researchers will not have any control of any future use by others who may copy these images and distribute them in other formats or contexts

\_\_\_\_I agree that the researchers may use any written or verbal comments, answers and code fragments I may provide in research presentations and publications.

\_\_\_\_I agree that the researchers may use segments of video recordings and images of my actions to illustrate their findings in research presentations and publications.

All the collected data will be kept by the investigators until it is no longer required, after which it will be destroyed.

### **Signatures (written consent)**

Your signature on this form indicates that you 1) understand to your satisfaction the information provided to you about your participation in this research project, and 2) agree to participate as a research subject.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research project at any time. You should feel free to ask for clarification or new information throughout your participation.

Participation, non-participation or withdrawal will have no effect on your continued relationship with the University of Calgary or on any course grades.

Participant's Name: (please print) \_\_\_\_\_

Participant's Signature \_\_\_\_\_ Date: \_\_\_\_\_

Researcher's Name: (please print) \_\_\_\_\_

Researcher's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### **Questions/Concerns**

If you have any further questions or want clarification regarding this research and/or your participation, please contact:

*David Ledo*  
*Department of Computer Science*  
403 210 9499, [dledomai@ucalgary.ca](mailto:dledomai@ucalgary.ca)  
Or  
*Saul Greenberg*  
*Department of Computer Science*  
403 220 6087, [saul.greenberg@ucalgary.ca](mailto:saul.greenberg@ucalgary.ca)

If you have any concerns about the way you've been treated as a participant, please contact the Senior Ethics Resource Officer, Research Services Office, University of Calgary at (403) 220-3782; email [rburrows@ucalgary.ca](mailto:rburrows@ucalgary.ca).

A copy of this consent form has been given to you to keep for your records and reference. The investigator has kept a copy of the consent form.