



## The University of Arizona Consent to Participate in Research

**Study Title:** Target Prediction by Combining Sensory Feedback with an Internal Model. Experiment 1.

**Principal Investigator:** Robert Wilson

**This is a consent form for research participation.** It contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to discuss the study with your friends and family and to ask questions before making your decision whether or not to participate.

### Why is this study being done?

The goal of this project is to gain insight on how humans plan arm movements to interact with moving objects. This information should help us understand how the brain makes predictions. This study requires a participation time of 30-60 minutes.

The task you will be asked to perform in this study primarily entails moving a cursor onscreen with a mouse or trackpad. If you experience fatigue at any point you may pause the task by choosing not to proceed to the next trial. Upon successful completion of the experiment, you will be given 10\$.

### What will happen if I take part in this study?

You will be asked to access a webpage that has the experiment contained within it. To start the experiment, you will simply copy/paste the website into your preferred search engine and enter in some basic information when prompted. Then the experiment will begin.

During the entirety of the experiment, your on-screen cursor will be replaced by a purple dot. There will be a brief instructional period to teach you how to do the task. Directly after this, the first trial will start. Throughout the course of the experiment there will be a blue dot, along with a crosshair, located at the center of your computer screen. To initiate a trial, you will be asked to move your cursor into the center of the blue dot. At some time after initiating the trial, a white annulus will flash on screen briefly as well as a red dot at some location on the perimeter of an invisible circle surrounding the center of your screen. The red dot will stay at that location for a small amount of time before also going invisible. Some time after this, a second white annulus will flash on screen. Then, the red dot will move to a new location along the perimeter of the



same invisible circle at the same time as a third white annulus flashes onscreen. As quickly as possible, you are to move your cursor from the center of the blue dot to the location of the new red dot after seeing this third annulus flash. If you move your cursor off the blue dot before the third annulus appears, you will get an error message saying "False Start!" and if you don't move off the blue dot after a small amount of time you will receive one saying "Too Slow!". On a successful trial (one where you receive no error messages), you will be awarded 10 points.

Completing 900 trials or 8000 points results in successfully completing the experiment.

Your responses will be assigned a code number. The list connecting your name to this code will be kept in an encrypted and password protected file. Only the research team will have access to the file. When the study is completed and the data have been analyzed, the list will be destroyed.

### **How long will I be in the study?**

Participation will take 30-60 minutes.

### **How many people will take part in this study?**

A total of 200 healthy adult subjects (18-70 years).

### **Can I stop being in the study?**

**Your participation is voluntary.** You may refuse to participate in this study. If you decide to take part in the study, you may leave the study at any time. No matter what decision you make, there will be no penalty to you and you will not lose any of your usual benefits. Your decision will not affect your future relationship with The University of Arizona. If you are a student or employee at the University of Arizona, your decision will not affect your grades or employment status.

### **What risks, side effects or discomforts can I expect from being in the study?**

During this study you might experience some light fatigue of your arm. Another issue is the possibility of mental fatigue. To help with this, you will be allowed to take a break at any time before initiating a new trial. The only cost for participating in this study is time.

### **What benefits can I expect from being in the study?**

You will not benefit as a direct result of participating in this study. This study may provide insights on how humans generate motor commands/plans to interact with moving objects. Also, this study might pave the way for further exploration of the underlying neural circuitry involved in performing such tasks. Information collected about you will not be used or shared for future research studies.



### **What other choices do I have if I do not take part in the study?**

You may choose not to participate in this study without penalty or loss of benefits to which you are otherwise entitled.

### **Will my study-related information be kept confidential?**

Efforts will be made to keep your study-related information confidential. However, there may be circumstances where this information must be released. For example, personal information regarding your participation in this study may be disclosed if required by state law.

Also, your records may be reviewed by the following groups:

- Office for Human Research Protections or other federal, state, or international regulatory agencies
- The University of Arizona Institutional Review Board

### **Will I be paid for taking part in this study?**

By law, payments to subjects may be considered taxable income. You will be paid \$10 for completing the study. You may also instead receive course credit in the Department of Psychology if you are enrolled in that program.

### **Who can answer my questions about the study?**

The information that you provide in the study will be handled confidentially. However, there may be circumstances where this information must be released or shared as required by law. The University of Arizona Institutional Review Board may review the research records for monitoring purposes.

For questions, concerns, or complaints about the study you may contact **Robert Wilson PhD**, [bob@email.arizona.edu](mailto:bob@email.arizona.edu) (520) 626-8597

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721 or online at <http://rgw.arizona.edu/compliance/human-subjects-protection-program>.

### **Signing the consent form**

HSPB Use Only:



I have read (or someone has read to me) this form, and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by signing this form. I will be given a copy of this form.

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Printed name of subject

\_\_\_\_\_  
Signature of subject

\_\_\_\_\_  
Date and time

AM/PM

HSPF Use Only: