





Would your child/legal ward like to control a computer with their brain?

At the *University of Nebraska-Lincoln*, we are trying to learn about how people control computers with their brains, and how they like them to look. Brain activity involved in control of the brain-computer interfaces (BCIs) will be recorded by electroencephalography (EEG). This is a method which records brain waves via electrodes placed in a cap, similar to a swimming cap. The purpose of the study is to inform how brain-controlled computers can be designed and implemented. **Scan this QR code with your phone to see what helping in this study is like!**

Participant Requirements

- Between 8 to 12 years of age
- Typically developing <u>OR</u> a with diagnosis of cerebral palsy, or muscular dystrophy.
- Be without a) electronic implants (e.g., pacemaker or pumps),
 b) difficulties with color vision and c) a history of photosensitive epilepsy

Photosensitive epilepsy affects roughly 10% of individuals with epilepsy

Location: Barkley Center, University of Nebraska-Lincoln, East Campus



Tasks and Requirements:

- The study includes <u>three sessions</u>, lasting between approximately 60-90 minutes.
- Sessions 1 and 2 will include brain-computer control by the participant staring at pictures while they flash red. Session 3 will include use of an iPad application to evaluate best designs.
- Short assessments evaluating areas such as attention will also be collected.

This project has been approved by the University of Nebraska-Lincoln institutional review board.

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