

## You are Invited to Participate in a Research Study about Wearable Exoskeletons

### **Purpose:**

Our overall goal in this research study is to evaluate different exoskeletons for potential occupational applications. We are focusing in particular on tasks involving use of the arms, such as in manufacturing or construction. We hope to learn more about how different exoskeletons affect physical demands. Our current focus is on a simulated manual task, using two different exoskeletons. The results of our study may be published in an archival journal and/or presented in a conference.

### **Requirements:**

- Male or Female, age = 18-55 years.
- Have no current or recent history of musculoskeletal disorders.

### **Experiment Details:**

- You will be asked to perform a simulated manual task (moving a ~ 2lb load) without and with wearing two exoskeletons. We will collect your oxygen consumption through a mask you will be asked to wear. Non-invasively, we will also measure your muscle activity using surface electrodes that we will put on you.
- One experimental session (~ 3 hrs) is required to complete the study.
- Compensation: \$10/hour.

*Participation is voluntary and confidential. This study is conducted at the Grado Department of Industrial and Systems Engineering at Virginia Tech. Research protocols have been approved by the VT IRB (#16-1138).*

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