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**Track:** OpenCap or other video-based analysis of movement

**Home Institution:** Institution\_name

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**Provide a brief background of your project and describe your research question**

People with stroke can experience gait deficits that are difficult to quantify with current clinical scales. Quantitatively measuring these deficits in a reliable and repeatable manner could help with prescribing individualized treatments. The goal of our research project is to assess whether OpenCap can repeatedly measure gait deficits of people with stroke over the course of one year.

**Describe your current planned methods**

We plan to recruit people post stroke and age-matched unimpaired individuals to our study. Gait assessments will occur in the clinic every 3 months. They will complete a timed up and go task and 5 sit-to-stands in addition to a standard clinical gait assessment. Data will be collected in the OpenCap web application and spatiotemporal parameters will be extracted from the kinematic data. We also would like to assess muscle activity using the dynamic simulation framework provided on the opencap-processing GitHub repository to assess muscle function.

**What topics would you like to discuss during the video call?**

1. What is the optimal setup of cameras to capture both of these tasks?
2. What spatiotemporal parameters can we estimate with OpenCap?
3. Is it possible to use the dynamic simulation pipeline to extract extra parameters about muscle activations or strength?

**Does this project have funding?**

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