

# Sys Lab Journal 0

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## 1 Option B

The proposed idea was using motion capture to classify dance and martial art moves. This could be built upon to score moves which would be helpful for beginners to learn or for more proficient students to master a move.

This is a partner project so I will need to speak to them about it. However, I would like to change my project because over the summer, I worked with CAN messages at my job. I was thinking about potentially building upon the knowledge I gained over the summer.

A possible modification to my proposed project would be to use computer vision rather than motion capture. I heard that the motion capture system was being taken down in the black box theatre. This would also allow for a better parallelization of the project.

As for new project ideas, I was thinking about doing a mimicry system, either virtually or physically, using CAN messages. At my job, we used a software called DASYSLab for displaying which has analog and digital meters to show values. I developed a playback function using log files. I am interested in creating a 3D model for a given playback or for real time changes on a breadboard.

Movement classification by computational methods has been a challenge, especially in the field of dance and martial arts. With the rise of neural networks and accuracy of motion capture, we are able to recognize patterns and extract position and movement data. This project will utilize these technologies to classify and potentially score essential movements in dance and martial arts.