# Analysis 1

## Goal

Properly classify right/left hand close and idle. I will try:

* Using a single SVM with the standard feature vector (alpha band power, beta band power, mobility, complexity)
* Use 1 SVM for identifying open and close, then use the second SVM to identify right hand or left hand. Feature vector will be the same.
* Use 1 SVM for identifying open and close with standard feature vector, use the second SVM for identifying right hand or left hand with CSP feature vector

## Results

A diagram of a blue box

AI-generated content may be incorrect.A graph of a bar chart

AI-generated content may be incorrect.

Figure Since the SVM groups all classifications together, the idle states are split in half

A diagram of a blue box

AI-generated content may be incorrect.A graph of blue bars

AI-generated content may be incorrect.

A diagram of a blue box

AI-generated content may be incorrect.A graph with blue squares

AI-generated content may be incorrect.

## Results

Using CSP seems to produce the worst results. This could be due to the low spatial resolution on the Muse EEG with only 4 electrodes. The double pipeline overall works better because it works well with the imbalance of idle states vs left hand vs right hand samples.