

## Instructions for creating model files and trajectories from static system ID experiments

### 1. Process motion capture data

- Copy “getactive.m” and “smoothmotion.m” to the “\$/datafiles” directory.
- Run “getactive.m” to produce the file “parseddata.mat”, eliminating trials with bad motion capture data.
- Copy “parseddata.mat” into the “\$/models” directory.

### 2. Make models

- Modify the last line of “computemodels.m” so that the date of the saved file is clear.
- Run “computemodels.m”.
- Put your model file in the “\$/trajecotryGeneration\$” directory.

### 3. Make trajectories

- Modify the first line of “computeFeasible.m” to find the correct model file.
- Get updated humerus and forearm lengths, shoulder position, carry angle, and thorax rotation from “parseddata.mat” or a datafile for shoulder position
- run “computeFeasible.m” (do this ahead of time)
- Get new recruitment curve data if necessary (do this day of control experiment)
- Set up optotrak and record thorax orientation, shoulder position, humerus length, and forearm length in “findfeasiblepath.m”.
- Run “findfeasiblepath.m”
- Pick 20 unique trajectories
- randomize the order of trajectories