**Skilled Reaching Analysis Workflow**

1. crop raw videos
   1. make sure the RXXXX\_sessions.csv file is up to date (download from Alex Bova’s electronic notebook) in the DLC output folder for the relevant rat
   2. make sure the raw videos have been uploaded to corexfs/data/Skilled Reaching/SR\_Opto\_Raw\_Data/RXXXX run script\_extract\_vidROI\_DL. Make sure the loops are set to extract the correct videos. Set the repeatCalculations flag at the top of the m-file to false if you want to skip any videos that have already been cropped, true if you want to re-crop them.
   3. copy cropped videos to umms-dleventh/Skilled Reaching/RXXXX\_cropped
2. run DLC on the cropped videos. Eventually, this will be streamlined and done entirely in DLC beginning with the cropping step
3. copy DLC output files into the local DLC output folder (from corexfs) along with cropping metadata files
4. recalibrate the boxes for each session. Run script\_recalibrateBoxes. Make sure that the relevant box calibration file for that session has already been calculated; otherwise, the script will go back in time until it finds a calibration file for that box.
5. Reconstruct the 3D trajectories. Run script\_reconstruct3Dtrajectories\_a. Make sure the repeatCalculations flag is set appropriately.
6. Script\_calculate
7. Interpolate the trajectories. Run script\_interp\_trajectories

script\_analyze\_interp\_trajectories

script\_calculateRatSummaries

???

script\_plotRatReachSummaries

script\_plotSessionReachSummaries

???

script\_analyzeAlternateStimSessions will look through all sessions for ones that have laserTrialSetting == 'alternate' and create an “alternateKinematics” data structure

script\_plotAlternateStimResults

script\_collectRatSummaries\_by\_experiment