Assignment 21. Putting it all together.

For this assignment, I want you to submit a sample video you will be using for your project. Submit a video that captures the behavior/performance of your animal that will address your research question/hypothesis. Track a point on the video to obtain a set of kinematics that will address your research question. If you need to adjust the R script to match your question, please let me know.

I will use the video rubric and digitization rubric to grade the video and digitized point. Please submit the video and the tracked point so I can assess them. Then submit a file with your results showing:

1. Figure of displacement vs. time
2. Figure of velocity vs. time
3. Figure of acceleration vs. time
4. Total displacement
5. Maximum instantaneous velocity
6. Maximum instantaneous acceleration
7. Mean velocity
8. Mean acceleration
9. An additional variable or graph to represent your data

Video rubric

	Excellent (2)	Good (1)	Unacceptable (0)
Focus	Animal is in the depth of field with sharp focus, no blurred edges. Entire video remains in focus.	Animal is in the depth of field with mostly sharp focus, edges are blurred a bit. Focus is lost throughout video.	Animal is not in focus, edges are blurred.
Blur	There is no blur from frame to frame. Shutter speed and frame rate are fast enough so each frame is sharp, allowing the identification of edges	There is minimal blur from frame to frame. The shutter speed and or frame rate could be adjusted better to minimize frame to frame blur.	There is too much blur from frame to frame making analyses difficult or impossible. The shutter speed and or frame rate should be adjusted to minimize blur.
Light	The light is bright enough, but not too bright for digitizing throughout the video	The video is a bit washed out or dark, but points could still be digitized.	The lighting is too bright or dark, making the video inappropriate for analysis.
Composition- 2 dimensional	The animal remains in a position to capture the 2D behavior throughout video, it does not go in the 3rd dimension, which would alter results	The animal is mostly in a 2D position to capture the behavior, but may go into the 3rd dimensions a bit. Video could still be used for digitizing.	The animal goes in to the 3rd dimension and is not the right orientation which would distort any resulting kinematics.
Performance/behavior	The video captures the entire performance or behavior of interest	The video captures most of the behavior/performance, but some aspects might be missing.	The video does not fully capture the behavior/performance and is not useful for analysis.

Digitization Rubric

	Excellent (2)	Good (1)	Unacceptable (0)
Point placement	Point accurately captures the structure intended	Point captures the structure intended, but may be better elsewhere	Point does not capture the structure intended
Accuracy	Point is consistently placed throughout the sequence	Point is placed throughout the sequence but is not consistent in its placement on the animal	Point jumps between structures throughout the sequence and does not consistently capture the intended structure
Tracking throughout	Point is placed on all frames	Only a frame or two missing a point	Several frames are missing points
Point visibility	Digitized structure can be seen throughout the entire sequence	Digitized structure can mostly be seen throughout the entire sequence	Digitized structure cannot be seen in many frames
Performance/behavior	Point accurately captures the intended behavior/performance	Point captures the intended behavior/performance, but may be better elsewhere or starting/ending at a different frame	Point does not accurately capture the intended behavior/performance

Peer Evaluation Form for Group Work

Your name _____

Write the name of each of your group members in a separate column. For each person, indicate the extent to which you agree with the statement on the left, using a scale of 1-2 (0.5=strongly disagree; 1=disagree; 1.5=agree; 2=strongly agree). Total the numbers in each column.

Evaluation Criteria	Group member:	Group member:	Group member:	Group member:
Attends group meetings regularly and arrives on time.				
Contributes meaningfully to group discussions and demonstrates a cooperative and supportive attitude.				
Completes group assignments on time.				
Prepares work in a quality manner.				
Contributes significantly to the success of the project.				
TOTALS				

Feedback on team dynamics:

1. How effectively did your group work?

2. Were the behaviors of any of your team members particularly valuable or detrimental to the team? Explain.

3. What did you learn about working in a group from this project that you will carry into your next group experience?

Adapted from a peer evaluation form developed at Johns Hopkins University (October, 2006)