Briefly (2-5 sentences) describe the experimental procedure being used:

- Conduct literature search of current video segmentation methods and evaluate using decision matrix
- Use that method to create segmentation pipeline for high amounts of data
- Used because there are too many methods for video segmentation, very fast moving field, time constraint

List equipment or materials that are SPECIFIC and SIGNIFICANT to your method:

• Python, JupyterNotebook, DeepLabCut, Track-Anything, XMem, MaskFreeVis, GitHub, Trello, Tensorflow, Pytorch

Mock-Up: Will add more photos once complete, this section is intentionally only photos and no text.

Method	Use Case	Number of Papers Using Tool	Activeness	Total Time to Test	Processing Time	Ease of Use
DeepLabCut	Trained Pose Estimation/ Tracking	3310	5	SH - 6m MH - 5m SA - 5m MA - 5m	SH - 1m MH - 1m SA - 56s MA - 56s	4
Track- Anything	Semi- supervised Segmentation/ Tracking	3	4	SH - 3m MH - 2m SA - 2m MA - 3m	SH - 2m MH - 1m SA - 52s MA - 1m	5
XMem	Trained Segmentation/ Tracking	х	х	х	х	х
MaskFreeVIS	Trained Segmentation/ Tracking	х	х	х	х	х

(Decision matrix for deciding best method to use)





use our Project Manager GUI, Jupyter Notebooks, Google Colab, or terminal!

Create a project, extract frames, + GUIs to label your data

Select + Train your deep neural network

Evaluate network performance

(active learning + GUIs if improvement needed)

Run inference on new videos, create labeled videos, + plot your results!

(DeepLabCut software description and pipeline visual)