Vishaal tracking

Install Spyder for running scripts

* Run main.py
* Enter username and session ID (e.g. “Elin” and “2024-02-09\_beetle01”). Submit and close window -> new destination folder created
* Find calibration video (“calibration.mov”) in source folder. Upload file. Close window. -> video saved in destination folder
* Find video you want to track (e.g. “20220228\_1roll\_midroll\_B01.mov”). Upload file. Close window. -> video saved in destination folder

Window with instruction:

“Select a function and click Run to proceed:”

1. Choose checkerboard parameters

* Run
* Select “checkerboard 3 (6 by 9)” and enter checkerboard size (mm) as “39” for Elins example.
* Make selection

1. Extract calibration parameters

* Run
* Video starts playing. Follow instructions in video.

Play around here. For best results I suggest to only choose frames where the pattern is fully flat on the ground, starting from “capture 1095” in my example video. It will for each chosen frame say “Press o to set current frame as ground frame, spacebar to skip and proceed”. Choose ONE frame to be ground frame (e.g. when the checkerboard pattern is located in the center of the arena as in “capture 1298”). For the rest of the chosen frames, choose spacebar even if the pattern is fully flat on the ground.

* Window called “frame” will pop up showing a frame from the video where the calibrated correction has been applied. This will give you an idea of how well the calibration worked.
* Press “q” to close window

1. Calibrate video

* Go to your destination folder and rename the video to be tracked to “raw” (this step can surely be made irrelevant but for now this is needed.)
* Run
* The video with the applied correction will play. Let it play until your wanted trial has been performed in the video, then press q. For my example videos, it’s enough to watch the beetle exit once before pressing q. -> video “processed.mp4” will be saved in destination folder

1. Tracking

* Run
* Start window: choose start frame for tracking
* End window: choose end frame for tracking
* Spacebar
* Draw box. Spacebar.
* Watch the magic happen  
    
    
  DONE SO FAR