How to use DeepLabCut

Now that you have installed DeepLabCut, you can start using it. Before we can create a new project we need to work on the video files from the behavioral test. So far we record them using Ethovision. Within this setup we have a "Delay Time" of 2 seconds. Meaning that the tracking of Ethovision only starts 2 seconds after it first recognized the mouse. However, the raw video that Ethovision saves starts at the moment you hit the "start trial" button. Therefore, we need to cut the videos to the same length. You can do this manually in any video editing software that you can find or with a script. The latter will be explained in this document:

- 1. You need to install ffmepg first:
 - a. For windows users please follow these instructions:
 https://www.geeksforgeeks.org/how-to-install-ffmpeg-on-windows/
 - b. For Mac users install ffmpeg through Homebrew: <u>Homebrew</u> is a command-line package manager, which is similar to apt-get on popular Linux distributions. In order to use it, you need to install brew first, if you haven't already. Open the terminal and enter the following command:

/bin/bash -c "\$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install.sh)"

Follow the on-screen instructions. This will take a few minutes while it's installing the necessary developer tools for macOS. Then, run:

brew install ffmpeg

- 2. Copy the python script "video_cutting_script.py" to the folder where your videos are located.
- 3. Open terminal or anaconda command prompt and go to that folder using the command:
 - cd ** full path of the folder**
- 4. Type python "video_cutting_script.py. The script will now ask you for the directory. Type it or copy the path and do not forget the "/" at the end. (**Note:** For Windows users use "/" instead of "\")
- 5. The script will now ask you how long the trial is. Type it in.
- 6. The script will now cut your videos according to your trial length. The videos will be saved in the same directory with an additional "_trimmed.mp4"

Now you are ready to start your first project. Please use the first Demo Juypter Notebook (i.e. DLC_Demo_Notebook_1)