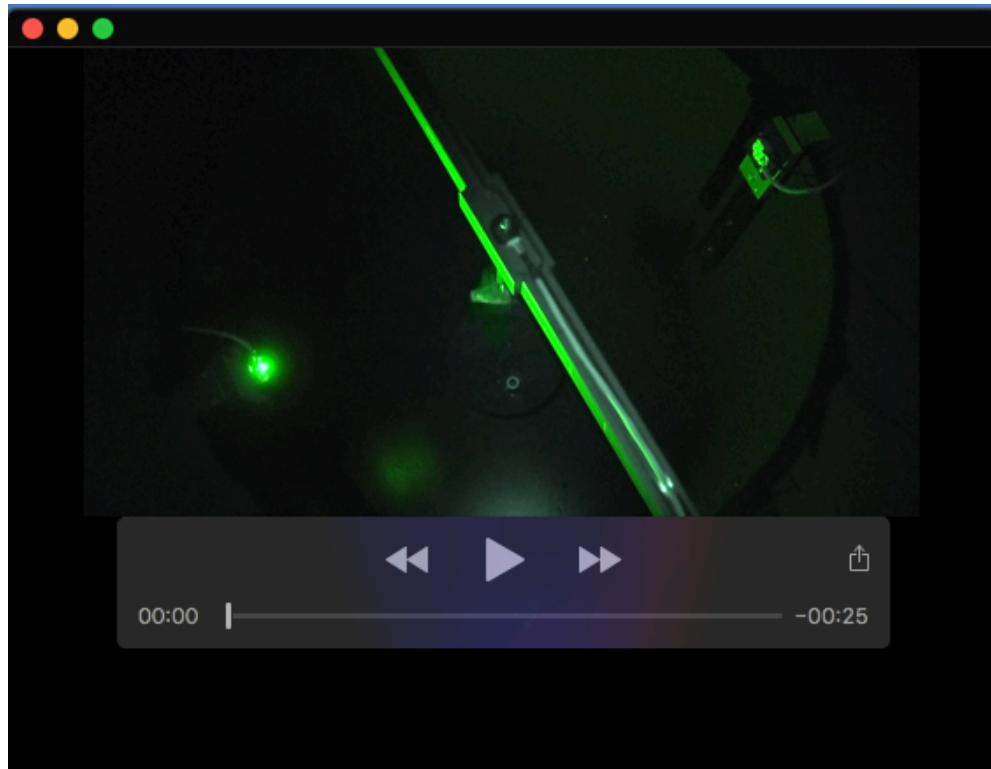**Movie 1.** A butterfly tethered at the center of a flight simulator and flying with respect to a dark stripe on a bright background. The position of the stimulus was relocated by 180 deg every two minutes.

Movie 2. A tethered butterfly orienting with respect to a bright stripe on a dark background. The position of the stimulus was moved by 180 deg every second minute.

Movie 3. Movie of a butterfly tethered at the center of a simulator and using a sun stimulus (a bright green light spot) as an orientation reference. The position of the sun stimulus was changed by 180 deg every two minutes.