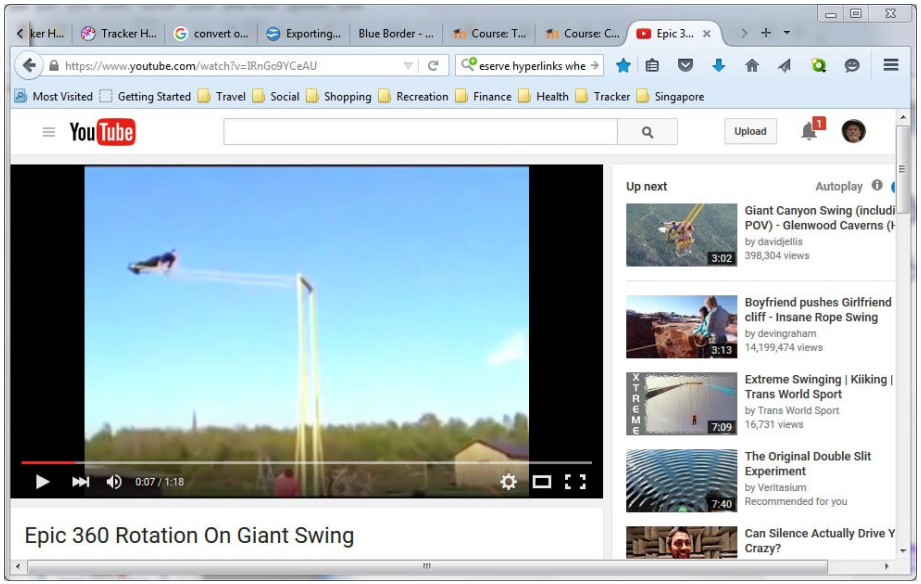
# Preparing Videos for Analysis

*Download videos from web sites*




## Useful resources:

YouTube

Clip Converter online video downloader

Freemake desktop video downloader

# Preparing Videos for Analysis

*Recommended file formats*

- *FLV, WMV, MP4, MOV*
- *GIF (may be animated), JPG, PNG*
- *Use a video converter to convert videos to one of these formats*
- *Trim/cut long videos for smaller files, faster loading*

**Useful resources:**

Freemake desktop video converter

# Preparing Videos for Analysis

## *Record your own video: cameras*

- *Look for high frame rate and time lapse capabilities, manual shutter*

**Useful resources:**

*Suitable cameras:* Vernier, Dot Physics

*Avoid rolling shutters:* LivePhoto

# Preparing Videos for Analysis

## *Record your own video: best practices*

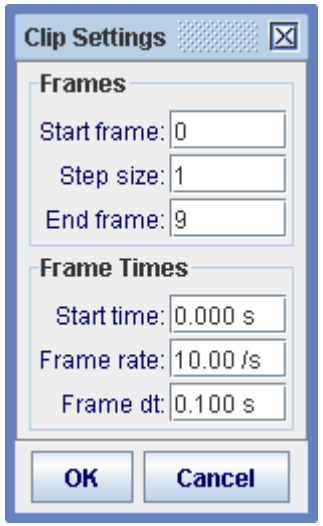
- *bright, uniform lighting*
- *uniform background, contrasting object*
- *fast shutter speed*
- *motion perpendicular to view*
- *narrow field of view*
- *steady camera (tripod if possible)*
- *calibration object at same distance*

## Useful resources:

Vernier discussion

# Preparing Videos for Analysis

## *Video clip settings*



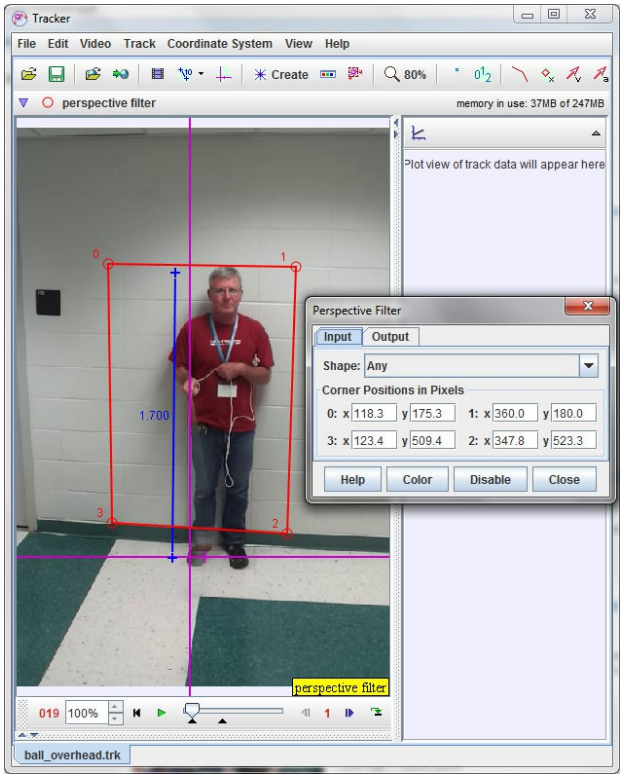

- *Inspector or video player controls*
- *Start, end frames*
- *Step size*
- *Frame rate, frame dt*
- *Start time*

## Useful resources:

Tracker Help: videos

# Preparing Videos for Analysis

## *Video filters*




- *Brightness, negative, grayscale*
- *Deinterlace*
- *Rotate, resize*
- *Distortion: perspective, fisheye*
- *Ghost filters: motion diagrams*
- *Baseline, sum*

## Useful resources:

Tracker Help: video filters

DL browser: ROLL583.mov, BallToss.mov, ballOnString.wmv