

## Ball tracking exercise



At *skyline robotics* we want to improve the employees' ping-pong skills. For this, we need a ping-pong ball tracking algorithm, to generate training data for our specialized ping-pong model. On you to design and implement an algorithmic pipeline for the detection and tracking of the ping-pong ball, and execute it on the given input video.  
For any questions call me (Ilan) 052-3407812

**\*\*\* Please do not pass this assignment to any 3rd party, it is confidential. \*\*\***

You should submit to us:

- 1) A python executable file that can be run in a simple command line on linux terminal. For example:  
**python3 track\_ball.py**
- 2) An output video showing the ball location at each frame (example attached).
- 3) A csv file containing the position (pixels) and velocities (pixels per seconds) of the ball at any time (example attached).
- 4) A text summary file containing at least 3 additional success scores (scalars) that can be used to evaluate the performance of the algorithm - it's on you to decide which statistics should be reported. Assume no ground-truth data is given.

Guidelines:

- All items are equally important.
- When you submit - please mention what dependencies your script requires.
- In the code, give comments explaining briefly the principles behind the algorithms you used in various stages of the pipeline.