

CSI4133_Project

Tracking Objects in Video

Goal:

Track multiple objects in a video by using their colour, shape and movement information

Idea:

1. Load Video (folder “videos”).
2. Isolate the markers of one or more colours.
3. Highlight the markers being tracked in the videos by encasing them with rectangles.
4. Try to also accompany each tracking rectangle with the marker’s colour, shape and motion information.
5. Visualize the result.

Hints:

1. A combination of previous exercises & your own independent research will likely be necessary to complete this project.
2. External source code can be used to complete this project (so long as it is properly referenced).
3. Tracking information can be displayed by drawing text next to tracking rectangle.
4. Your solution does not need to track in real-time.
5. Watch all videos before formulating your solution.

Note:

1. The videos contained within “videos” folder have had their file-size reduced using H.264 video compression. If OpenCV returns errors when trying to open these, uncompressed video can also be made available.)
2. If you can not open the videos using Windows Media Player, please try VLC media player. The download link is: <http://www.videolan.org/vlc/index.html>

Example:

1. Frames from the videos

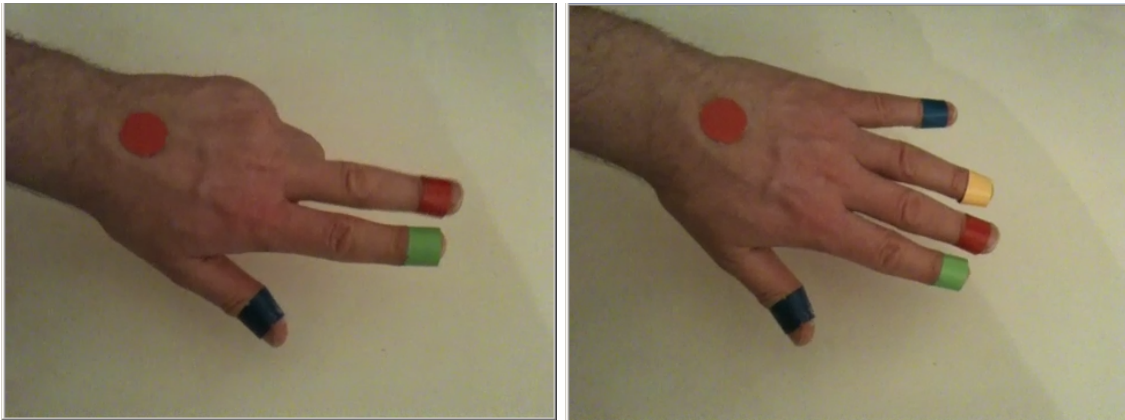


Figure 1. Frames from the videos

2. Similar video: <http://www.youtube.com/watch?v=H-okPVfoqe0>

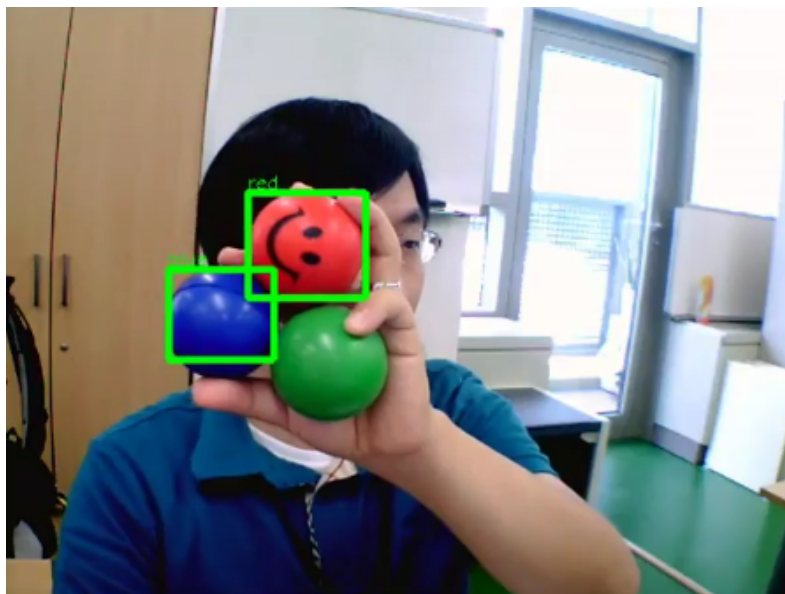


Figure 2. Detection results