

Weekly reports are to be emailed to atbecker@uh.edu by 5:00pm on Tuesdays. The purpose of a weekly report is to: (1) give you text and images for your papers, thesis, and dissertation, (2) document progress, (3) identify if you are stuck or need resources.

Weekly report

1. My Goals from last week

- 1) Need to combine and test for tracking using video cam, Comment code.
- 2) Test runtime and integrate with collection code.

2. My Accomplishments this week

- 1) Learnt some basic image processing in MATLAB
<https://youtu.be/1-jURfDzPIs>
- 2) Applied object tracking on red object to test and learn image acquisition toolbox
<http://www.mathworks.com/matlabcentral/fileexchange/28757-tracking-red-color-objects-using-matlab>
- 3) Literature study on filtering and segmentation techniques.
 - a) Watershed algorithm
 - b) Kalman filtering
 - c) Probability distribution function
 - d) Intensity based segmentation
- 4) Practicing image processing techniques such as color based filtering for better quality of images in video stream. Currently the glossy balls are too reflective

3. My Goals for next week

- 1) Combining codes for real time feedback control and test speed of algorithm.
- 2) Using Mathematics to find datasets for high density fluids
- 3) Placing particles and running collection algorithms on non-overlapping particles

4. What I need Dr. Becker to do:

Will need advice on collection code and also suggest corrections.