Weekly Report #11, Group 03: 4/9/2012

Accomplishments

- Tested several methods for drawing splines and finding the true centroid.
- Developed useful utilities for testing images in order to more rapidly and accurately prototype new algorithms.
- Presented to the class.

Plans

- Explore active-contours, scale-space theory, and other modern computer vision topics for a more robust solution to the tracking problem.
- Detect the head and tail.

Pending

- Update the webpage.

Individual Contributions

Colin
- This week I began to work on improving our background subtraction technique. The current implementation handles most cases well, but there are some important corner cases that need to be handled still. I also created a simple per-pixel histogram unit which can be dropped into existing code in order to test the values of a single pixel over time.

Shusheng
- This week I finished the first design to find the skeleton of specific worm. Now it can only roughly show the spline of worm with very well condition. I will continue work on the job to let the program fit all condition and then try to help finish the subtract noise.

Ryan
- I made up a powerpoint for our presentation. I also worked a lot in C# using EMGU to prototype some possible avenues for solving some of our problems. I started work on a few utilities for group members, in particular a histogram generator for pixels. I pulled out some old Google PageRank code and experimented with applying it to our problem with some success. I created a few algorithms for possible head/tail detection and others with a more utilitarian effort in mind (IE: converting contour polyline points into full perimeter, etc...). Also watched some videos on methods that might help us (udacity.com) such as particle filters. Periodically read some of the papers more in depth as well.

Group Member	Hours Contributed
Sam	-
Shusheng	4
Colin	12
Laith	-
Ryan	9