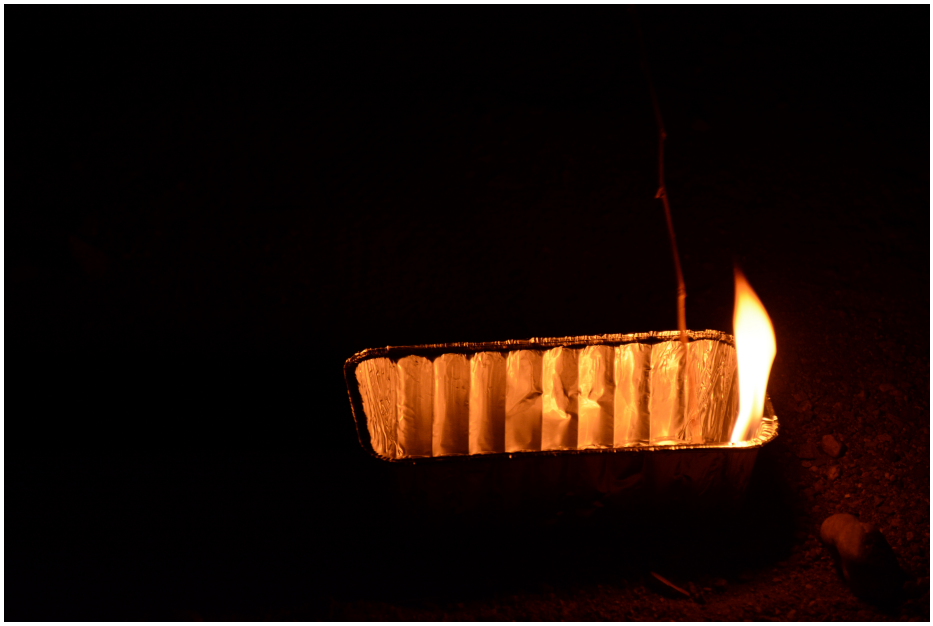
Flow Visualization
Katie Yarnell
Report 4: Team Second Photo

For this project, teams were put together to collaborate and take photos on a certain fluids topic; the topic for this photo-shoot was fire. This photo-shoot was taken at night. A team collaboration made it easy to try out a lot of different techniques to find what we liked. There were two tripods available and therefore two photographers taking picture, while the other two played with the fire to make interesting processes. We then all shared our photos with one another and selected our favorites.

The setup for this image was relatively basic; we had the tin ban with kerosene in it and then we lit the kerosene of fire. Using tripods and manual focus and exposure compensation, we were able to get a lot of really neat pictures. In the figure below, you can see the tin ban we used and the flame starting to grow.



The science behind the visual effect of the flame, is causes by the process of combustion where a chemical reaction occurs between the oxygen and the kerosene i.e. fuel used.

The lens was a Nikkor 18-140mm lens. For the image the ISO was set to 800, the f-stop was f/10 and the exposure was 1/1600 with a -5 ev. Because of the of how fast flames move a very sturdy tripod was needed. A lot of pictures were taken to check the effect desired.

If there was more time, I would have liked to play around some more with the fire and see what other images I could have gotten. I'm actually very happy with the pictures we were able to get from the setup used. It turned out better than I originally expected. The only post-processing done was cropping the image and slightly touched up certain distracting background images.