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MCEN 4151

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Soda Can Exploding

The intent of this project was to work with a team to capture an image showing a phenomenon of fluid flow. For this project I decided to try and capture a soda can exploding. I first wanted to capture this by shooting a bullet into a soda can and try to get a picture of it right after the bullet entered the can. I didn't have the resources to do this so I went to the next best thing I had, a slingshot. This still had a high velocity and was able to penetrate the soda can. I first thought I could capture this through a burst mode on my camera. After about 6 attempts this didn't prove promising as the burst mode wasn't quick enough. My next thought was to take a video with my camera and take a slide from the video. Although the video recorded on my camera wasn't the best it still worked rather well.

To get the best explosion I could I shook the can up to get a high pressure in the soda can. I propped the soda can on top of my grill and had my friend shoot the can while I recorded the video. Here is a picture of what the setup looked like to get this image.

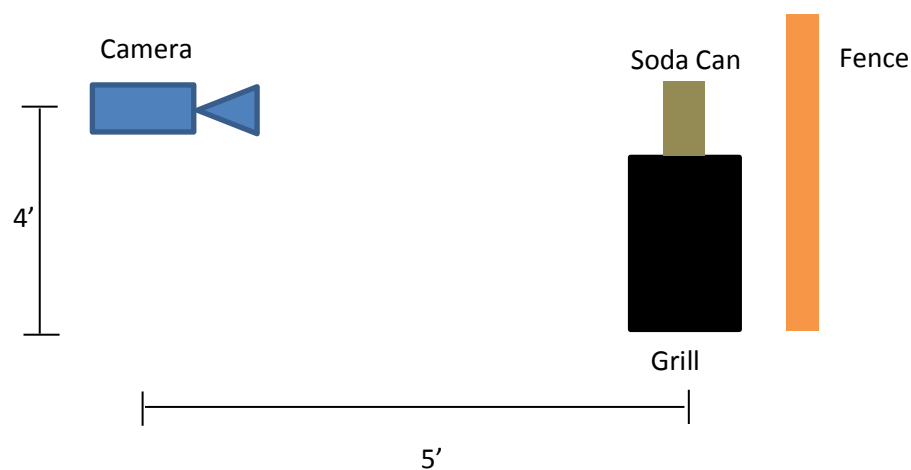


Image 1 : Side View

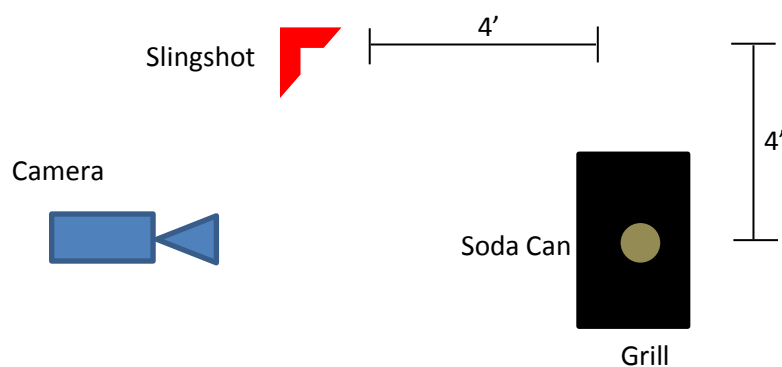


Image 2 : Top View

My friend shot the slingshot at a 45 degree angle from the can. I stood directly in front of the soda can to get the best image I could. It was a sunny day with no wind so the lighting was great and the spray from the explosion wasn't altered by the wind. I had my friend line up first so he could get a clear shot on the can and then I moved accordingly to get the image I wanted.

The camera I used was a Olympus EPL-1. I shot the video at 30 frames per sec. I opened the video in Window Live Movie Maker to get one frame from the video for my image. There were many frames to choose from so I picked the one that was the most eye-appealing. I altered the curves in the image a little to bring out the blacks in the image. I used Corel PaintShop Photo Pro X3 to do this.

The image came out great. I really like the spray pattern from the can that is created. I wish the camera I was using had a faster burst mode so I could have captured the initial explosion clearly rather than taking a motion blurred image from a video. Although I do think the motion blur adds a great effect to the image. I would have like to capture my initial idea with a bullet penetrating the can, but after using a slingshot I feel this would be extremely hard with the equipment I had.