

Get Wet Report – Methods and Tools for Capturing a Water Splash

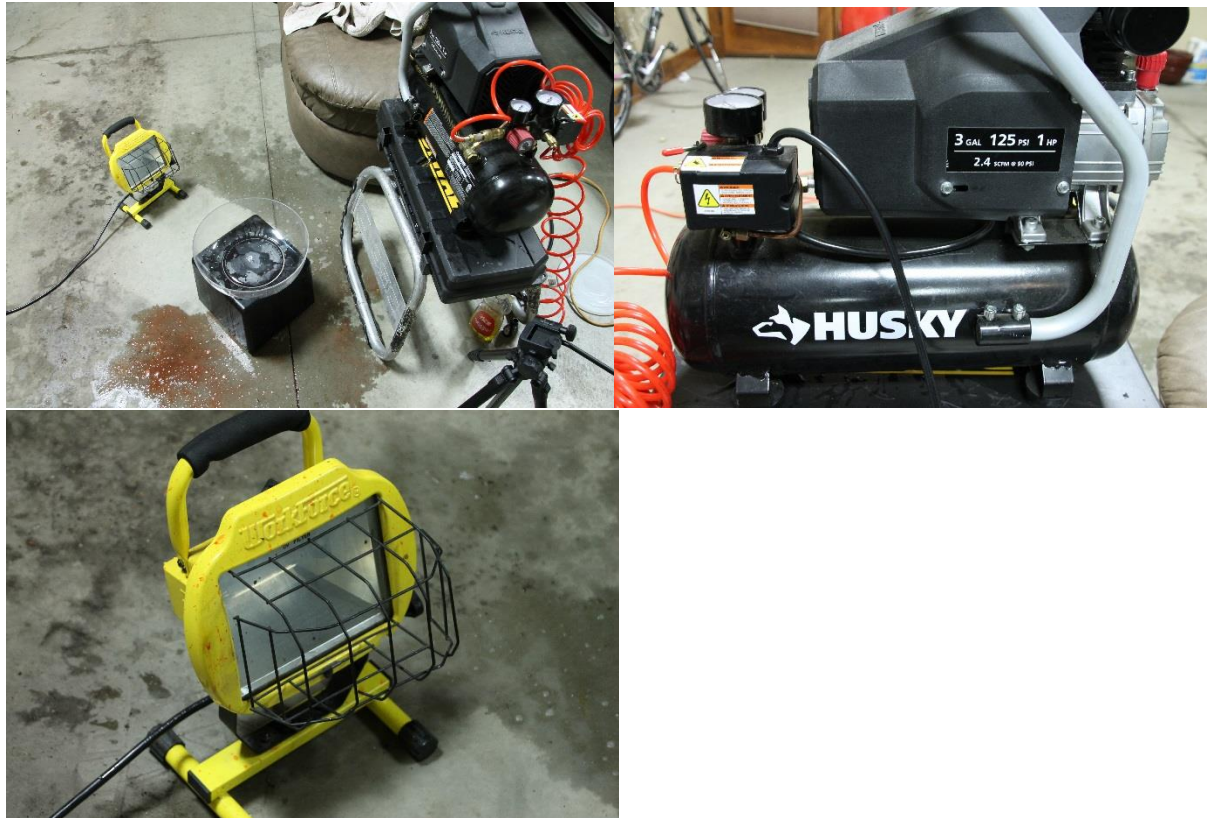


Purpose of the image

When looking for subjects to shoot in this Get Wet assignment, I considered options such as the use of dry ice or smoke, however I eventually settled on the use of high pressure air to alter the flow in an otherwise still body of fluid. By capturing splashes, I found myself able to capture a sense of chaotic motion which some might even consider violent-looking in nature. In combination with the placement of food coloring and lighting varieties, I felt that I was able to accurately portray a violent flow despite the scarcity of lighting and use of heavy contrast.

Flow demonstrated

In this particular image, we can see the effect of the high speed air impingement on the liquid surface of the water, soap, and food coloring mixture. The placement of the air blast in the center causes the mixture to fan outwards towards the edges of the plastic bowl, and the velocity of the water is great enough that small waves of water can be seen exiting the clear plastic bowl. Additionally we can see air blast atomization occurring in small bits of water that are being swept up in small vortices of air. Ligament breakup can also be seen near the edges of the bowl as soon as the water leaves the main body.



The materials used consist primarily of a Canon Rebel T3 used to shoot the flow visualization, a Husky BS1004 4 gallon air compressor, a worklight and a bowl. The worklight had no filter on it whatsoever, which created a well-defined square of light in the image, adding to the element of contrast and therefore the impression of chaos in the image. The process of shooting the image required filling the air compressor to a high PSI and using a quick turn on and off of the release valve to send a momentary blast of air towards the bowl.

Photo technique

By using one single backlight in the lighting of this image, the diffraction of the lighting through the mixture causes well-defined lines of contrast and easier visualization of the shape of the ligaments in the mixture. Use of shallow depth of field was another intentional element, shooting at an f-stop of f5 and a shutter speed of 1/4000 (the highest the camera is able to go). In conjunction with an ISO setting of 1600, the exposure of the image made for a satisfactory result. Finally, I increased the contrast slightly using Photoshop and cropped the image to make a more symmetrical effect.

Honorable mention photos:

