

# Meeting Minutes

Date: July 21, 2021

By: Jean Davids, Secretary/Treasurer

Three assignments of edited video were turned in this month. Thanks to Anthony Hall, Larry Wilson and Jean Davids for submitted edited videos. All were great and appreciated.

Heather Reinhart's presentation as Featured Photographer and photos from her July Alaska trip have been postponed until August.

Jean Davids mentioned that we will no longer have the info@monticameraclub.com email address. GoDaddy was implementing changes that would require payment on a monthly basis to use what use to be free email. Since we no longer do photo shows and the like, it just isn't worth it and since Jean already has another email account of hers associated with the site, it will just be used now. Saves the club money and saves Jean another email address to have to check on.

The main topic for the night was High-Speed Photography and was put on by Bob Somerville and Jean Davids who both did a crash course on the topic in order to present it. Both have an interest in the topic so it was kind of fun to see what could be done.

For purposes of this presentation, photographing water droplets was the main area we focused on. Four videos on this topic were shown. The first explained a basic setup. The second showed the technique for freezing the action of a popped water balloon. The third showed alternate technique for doing splash water drop technique and the fourth showed some High-Speed Photo options that don't require flash at all.

Here are the links for these videos:

1. How to Do Water Drop Photography - [https://www.youtube.com/watch?v=\\_nBZyHOT9rk](https://www.youtube.com/watch?v=_nBZyHOT9rk)
2. High-Speed Photography with Water filled Balloons - <https://www.youtube.com/watch?v=8kbFBFo0rYA>
3. How To Photograph Water Drops At Home with Gavin Hoey #CreateNoMatterWhat - [https://www.youtube.com/watch?v=bUI\\_OiNPC6Y](https://www.youtube.com/watch?v=bUI_OiNPC6Y)
4. High-Speed Photography ideas (hard to understand these guys but the techniques they show are of interest) - <https://www.youtube.com/watch?v=9m16BqmZaKg>

This video gives an excellent history and explanation of High-Speed Photography and I think it will be worth your watching. It isn't as exciting as these others but it is interesting, and a bit longer to view. Still worth it. How High-Speed Photography Unlocked the Mechanics of Motion - <https://www.youtube.com/watch?v=rncePQLTYuQ>.

In addition, this video shows a bit different technique for freezing action and does a good explanation of things. Freeze Water Droplets with an Entry Level DSLR and Budget Flash - <https://www.youtube.com/watch?v=X7BpqczoJ7U>.

During the days leading up to the meeting, Bob and Jean got together in Jean's garage to test out some techniques. Bob had a cable hooked from his flash to his camera to allow the off camera setup needed for this photo technique. It was specific to his Canon camera gear. Jean used a wireless flash trigger that we

learned about from John Richardson in his days with the club called a Cowboy Studio Flash Trigger and Receivers. From what I can tell, these are no longer made and seem to be replaced perhaps by Neewer as they look to be about the same and about the same price point. On Amazon, they cost around \$28 and includes one transmitter and 2 receivers. I cannot comment on this brand specifically except to say they look the same, sound about the same and have a 4 star rating so they should work good. Of course there are a great number of options you can pick from but here is a link to this one so you can at least check them out. [https://www.amazon.com/Neewer-Wireless-Speedlite-Receiver-Universal/dp/B00A47U22U/ref=sr\\_1\\_3?dchild=1&gclid=CjwKCAjwruSHBhAtEiwA\\_qCpjQSBA587IiQE0DJoTnxUQsrEhfH3ZAdu5tk2TJNY5h7izQdtZIXOhoCYh0QAvD\\_BwE&hvadid=177212128506&hvdev=c&hvlocphy=9019637&hvnetw=g&hvqmt=e&hvrnd=12253884207451470412&hvtargid=kwd-29098782929&hydadcr=18478\\_9831933&keywords=cowboy+studio+flash+trigger&qid=1626979613&r=8-3](https://www.amazon.com/Neewer-Wireless-Speedlite-Receiver-Universal/dp/B00A47U22U/ref=sr_1_3?dchild=1&gclid=CjwKCAjwruSHBhAtEiwA_qCpjQSBA587IiQE0DJoTnxUQsrEhfH3ZAdu5tk2TJNY5h7izQdtZIXOhoCYh0QAvD_BwE&hvadid=177212128506&hvdev=c&hvlocphy=9019637&hvnetw=g&hvqmt=e&hvrnd=12253884207451470412&hvtargid=kwd-29098782929&hydadcr=18478_9831933&keywords=cowboy+studio+flash+trigger&qid=1626979613&r=8-3)

So, to do the High-Speed photography of water droplets, your most critical item is not your camera, but rather your flash unit. I found this to be very true since my flash unit was old and outdated and the charge time on it could not keep up with the needs. For this reason, I invested in new flash units from Godox as they were ones recommended for the Pluto Trigger which I own. More on that later. These flash units can be plugged into using special cables to connect them to the Pluto Trigger or work very well using the Cowboy trigger I demonstrated with at the meeting. It kept the charge up very reliably. Your flash also needs to be able to shoot in Manual mode rather than TTL since it will be off camera. The secret to getting a frozen droplet in mid-air is the flash. The videos we shared explain this better than I can.

Second most important thing is a method to use your flash off camera so that it can be pointing at the area where the water droplet will occur. This requires either a cord or trigger/receiver setup.

Third is that your camera needs to be able to shoot in manual mode. This is so you can adjust settings so that without the flash, the image appears dark. Once the flash hits then that is what lights up the water droplet and freezes the action. You need manual focusing so that you don't have to worry about it trying to seek out that focus. Pre-focusing on the area to be the drop zone (so to speak) is how you maintain that focus. The ISO setting should be low. I used 100 ISO I believe. I was shooting with my Olympus OMD EM1 Mark II and the M.Zuiko 60 mm macro lens. Bob was using a zoom lens for his efforts. Either should work. I just found this option best for me. I also shot at F8 although the video recommended F11 to give a greater depth of field. My exposure time was set at 1/200<sup>th</sup>. These settings can all be tweaked to get the effects you want. Initially I had my settings on my flash set to a manual setting of 1/128<sup>th</sup> which turned out to be way too dark an image. Once I changed that to 1/32<sup>nd</sup>, it seemed to do well. This is also something that just needs to be tweaked and in various videos there was a wide range of recommendations. It depends on darkness of the room, ambient light, and many other factors.

You need a sturdy tripod and a water droplet source as well as something to drop the water/liquid into and overflow into as well. In addition, you will want some towels as things can get wet. Jean and Bob were just using droppers that were acquired different ways. Jean bought a couple medical ones at the grocery store prescription area that were fairly cheap plus she had a bunch of ones left over from medication use for her cat. Yes, they were unused ones.

Lessons learned from doing these water drops include some of the following:

- Fill the water to the brim of the receiving dish/bowl/whatever. Get a much cleaner image that way.
- Use of milk or food dye can greatly enhance your image as you can see it better. Food dye does get messy though so be aware of that.

- Trial and error are required as is patience. It takes a bit of coordination to press the shutter and drop the water. The ideas presented in the videos shared for hanging a bag of water and then sticking it with a pin would be a great idea to try because the water drops will land more reliably in your focus area and then you can just concentrate on pressing the shutter.
- Using a shutter release cable will help immensely as it removes that need to be right over your camera. It's tricky enough to get all these things going at the same time so a shutter release cable is helpful.
- Having a good background can help your setup a lot as well. To start with I had a very reflective pan underneath my glass and that bounced the flash around way too much. Having items that won't reflect that flash so much can be good.

Here's an image of what the setup was for Bob and I in my garage. Note: the glass needed to be full to the brim instead of as shown and it already has a lot of food dye coloring in it from our experiments. I used a cookie sheet under my glass which worked okay but the glass should have been full to work best. The M&M pencil was what I was putting into the glass to focus on for my water drops. The variety of droppers I used are shown to the front of the camera. Then I had a jar of water, a small bowl of milk and a variety of food dyes to play with. My flash unit was set up on the right side but either side will do. It should be to the side and pointed to the water/liquid where drops will fall. Camera positioning will depend on what type of gear you use. I used a big old backdrop I have just to keep the bicycle and junk out of the images. It is a garage after all. Bob did basically the same type of setup except he had a cord that ran from his camera to his flash unit whereas I used the cowboy studio trigger/receiver setup.

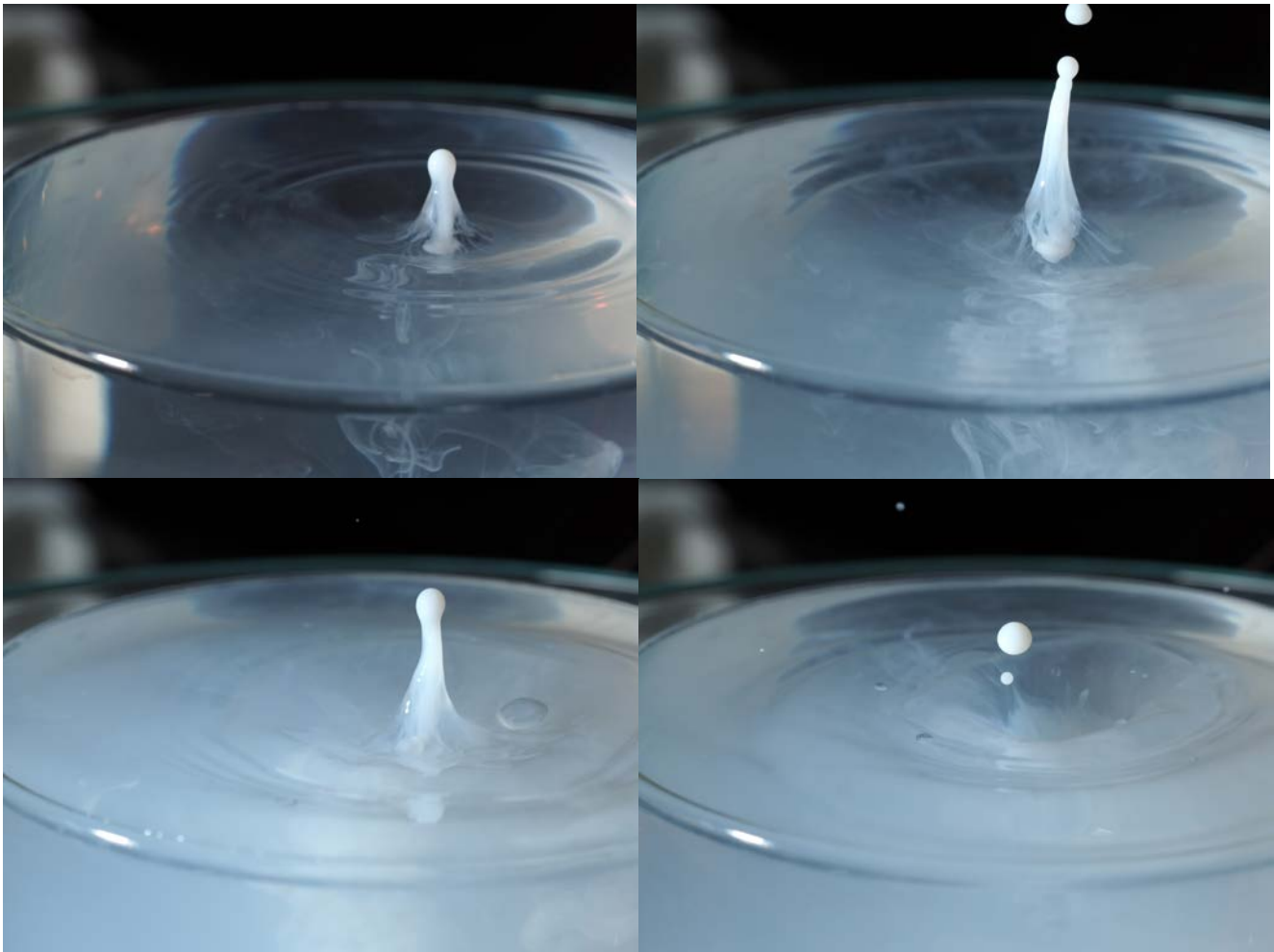


At the meeting, I tethered up my Olympus Camera using Olympus Capture and Olympus Workspace software, which were what I read were required to get this done. Tethering cameras to your computer and software is specific to your camera brand. This setup worked out really great for demo purposes as with the laptop connected to the projector/screen made it so people could see camera settings/focusing and watch as the photos came into being. Was a very useful technique it seemed.

As shown in this image by Bob Somerville, this is what you shoot for. That crown of two drops splashing together. Again, if we would have learned to fill the glass up to the top from the start then this image would have been even more spectacular. Enhancements can be made to improve quality too, such as sharpening and coloring and noise reduction if needed (it wasn't).



Jean's best shots during the demo were these. Of the 90 shots she took, only 19 were worth hanging onto and probably a half dozen of those could be called real keepers. So, expect to take a lot of photos and get just a few that you really like where everything timed out.



The response to this topic was great. In fact, we have arranged to have an event at Katie Friedman's house on September 19<sup>th</sup> starting at 2 pm to try our hand as a group to do some more High-Speed photography, hopefully to include some water balloon popping as well as more High-Speed work that might not require flash. More details will be provided as we get closer to that date. For now, save that date so you can join in the fun.

We hope you learned a lot from this session. It was a challenge to put on but I think both Bob and I enjoyed it.

Ah yes, MIOPS and Pluto trigger talk... Bob purchased a MIOPS Smart Trigger which can aid in doing a number of High-Speed photo techniques such as lightning, sound, laser, time-lapse, HDR and more. We could have demonstrated some on this but Bob was having issues with it at the time so couldn't prepare for that. Perhaps at the upcoming event in September, he will have it functioning better. It's a lot we were trying to learn in a short time. Here's a link to the MIOPS site: <https://www.miops.com/products/smart>.

Jean has a Pluto Trigger which is a cheaper brand that can do many of the same things as the MIOPS. Here's the link to their website: <https://plutotrigger.com>. Additionally, they have something called a Pluto Valve which is used specifically for water droplet photography. Jean learned the hard way when trying hers out that it is critical to have a rigid support to hold this up as hers ended up tipping over and toppling to the concrete floor and breaking the valve plug in electronics. She has a new one on order and hopes to try it out again. She will share photos she gets with that once everything is up and running. Here's a link

about the Pluto Valve. <https://plutotrigger.com/products/pluto-valve>. MIOPS has a unit called the MIOPS Splash Water Drop Kit. Here's a link to that. <https://www.miops.com/products/splash-water-drop-kit>.

Both the MIOPS and the Pluto Trigger are run from a cell phone app. The MIOPS can be set up independently via the remote itself but is best used in conjunction with the app (I believe). Both require special cabling to connect between flash units or other devices, like your camera, to do different types of shots. The MIOPS cost around \$240 when I looked it up and the Pluto Trigger costs around \$119.

I know I have thrown a lot of information out here for you. Hopefully it isn't too overwhelming. It can be a fun endeavor so even if you just try taking photos of hands clapping full of flour or a water balloon hitting someone in the head, just have fun with it.

To learn more, just go to YouTube and search for High-Speed Photography. You will find a LOT of information out there. I tried to narrow down the ones I thought were best to share with you here.

Assignments and Topics for the remainder of the year.

#### August 18

Assignment: High-Speed photo

Topic: Shooting Flowers (Presented by Anthony Hall and Steve Fowler)

Featured Photographer: Heather Reinhart sharing her Alaska Photos and experiences

#### September 15

Assignment: sunflower or flower photos

Topic: Voyagers National Park - Jeff Lavigne (tentative)

#### October 20

Assignment: Photos from National or State Parks (or just parks)

Topic:

#### November 17

Assignment:

Topic:

#### December 15

Assignment: Top photos of 2021

Topic: Holiday party, open discussion