



Learn the technique of using a dome port to capture stunning over and underwater photographs

Use a dome port with a mobile phone camera or an action camera to capture images.

-technique and necessary equipment-



We put in a lot of effort to produce this content. Rather than distributing this guide directly, we encourage you to share our website and product so that your friends can also access and download this content.

The upcoming article will provide an introduction to utilizing a dome port with a GoPro camera (or other compatible devices) and a mobile phone camera.

What is an Over-Underwater photograph or a Dome Port?

An over-underwater photograph, also known as a split photograph, is a type of image that captures both above and below the water surface simultaneously. It creates a unique and visually interesting perspective, showing both the underwater environment and the surface world in a single frame.

A dome port is an accessory that helps to capture over-underwater photographs. It is a clear, curved cover that is placed over the camera lens, creating a dome-shaped barrier that separates the water and air. This allows for clearer and sharper images, as well as the ability to capture both above and below the water surface in a single frame.



A Dome Port – is a wide-angle (spheric - Dome) lens, which dispenses the water in an equal and spherical way from the camera lens.



What equipment do I need?

- A. A GoPro camera (a sports camera) or a Mobile Phone (preferably with a wide angle camera)
- B. A Dome Port with a compatible connection to the GoPro or mobile phone.

What are the recommended features to look for in a good Dome Port?

When choosing a dome port, there are several factors to consider:

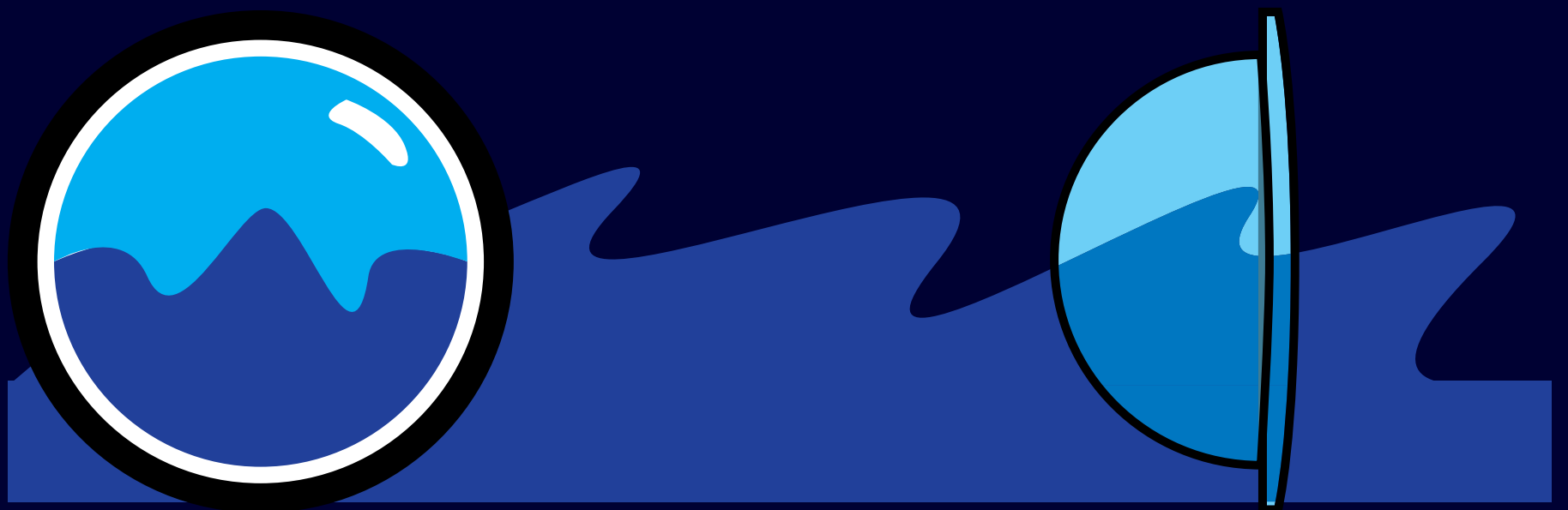
- **Compatibility:** Check if the dome is compatible with your camera as most domes are designed specifically for one camera.
- **Camera Controls:** Verify if you can access the on/off toggle and other camera options when the camera is mounted.
- **Visual Indication:** Look for a dome with a visual indicator to know if the camera is on/off or recording.
- **Detachability:** Check if you can detach the camera in the water for using the camera without a dome, especially for GoPro and sports camera devices.
- **Case Compatibility:** Determine if the dome comes with a pre-mounted case or if you can use your own case, and if you can replace the protective waterproof case.
- **Spare Parts Availability:** Check if the dome company provides spare parts for damaged parts such as the dome itself.
- **Handle Attachment:** Look for a dome that allows you to attach a handle either to the dome or directly to the camera.
- **Protective Cover:** Make sure the dome comes with a cover for protecting the dome, ideally for scratch protection and impact resistance.
- **Compatibility with Future Cameras:** Consider if the dome can evolve and be used with different types of cameras. In the current sustainability era, it is better to invest in a dome that can fit your next camera or other cameras you switch to.



How to use the Dome Port?

- **The Water conditions** Calm Water (e.g., pool or calm lake): In calm water, where there are minimal or no waves, the horizon border between the water and the air will be clearer. This means that you can use a smaller dome port to capture the refreeze effect effectively. The smooth water surface allows for minimal distortion, and a smaller dome will suffice to maintain image clarity and sharpness.

Turbulent Water (e.g., ocean with bigger waves): In conditions where the water is more turbulent, such as in the ocean with larger waves, a bigger dome port is recommended. The larger dome helps counteract the distortion caused by the waves and maintains better image quality. By using a bigger dome, you can minimize the effects of the waves on the refreeze effect, resulting in clearer and more professional-looking photographs.

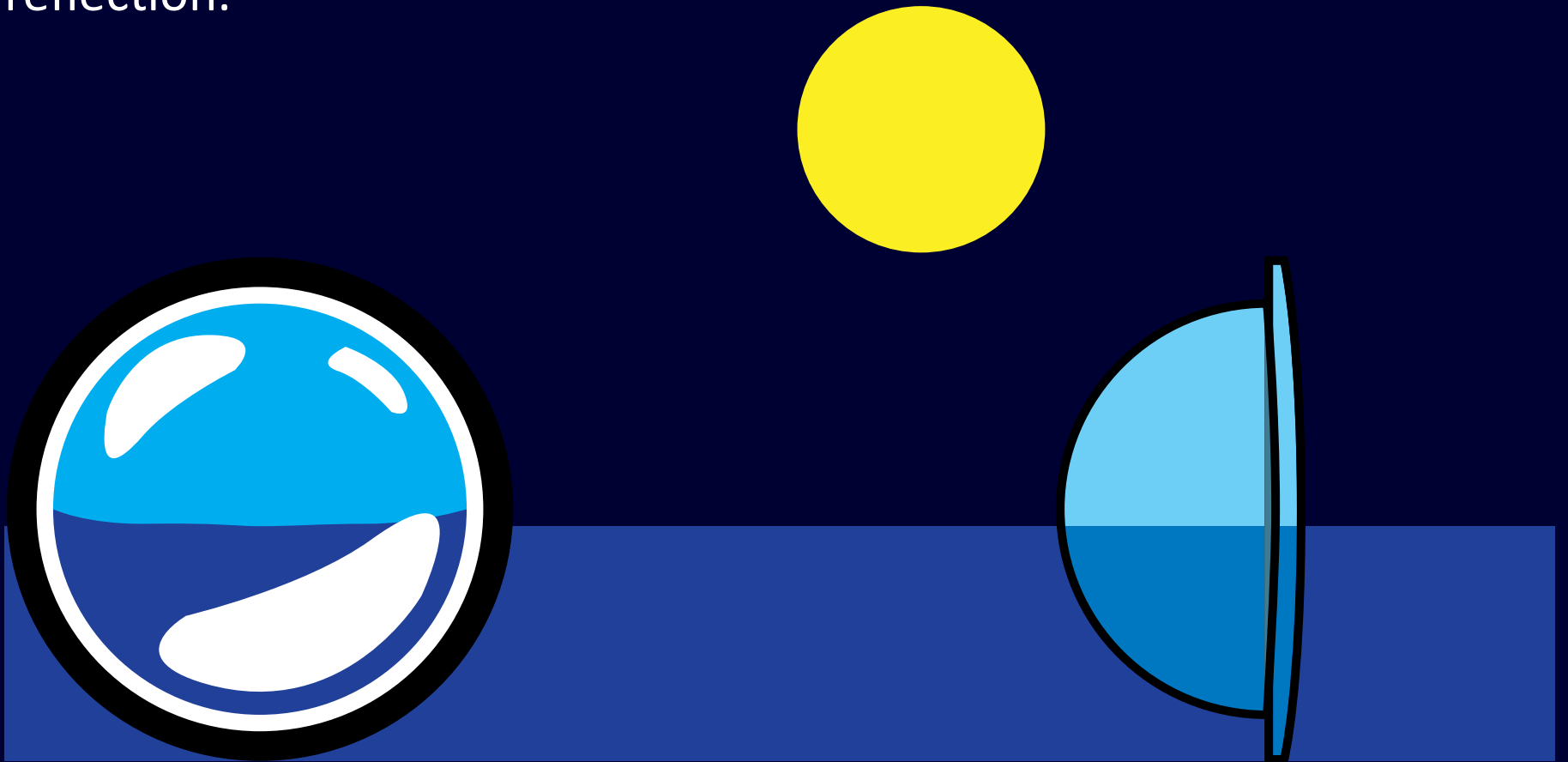


In a swimming pool or calm sea, the larger the dome, the less interruption there will be from water conditions. A preferred dome size would be around 100 mm in diameter or a 6-7 inch dome.

When using a dome port, it is important to consider the clarity and transparency of the water. The clearer the water, the greater the distance over which objects will appear clear when filming.

Warm pools tend to have lower water transparency, which can affect the quality of your shots. Keep this in mind when selecting the location for your underwater filming.

- Optimal positioning for shooting underwater is to have the sun positioned behind you, as it offers the simplest option and minimizes exposure discrepancies between the sky and underwater scene, reducing reflections. During sunrise or sunset, when the light is softer and at a lower angle, directing the dome towards the sun can yield exceptional results, creating a beautiful soft light while minimizing reflection.

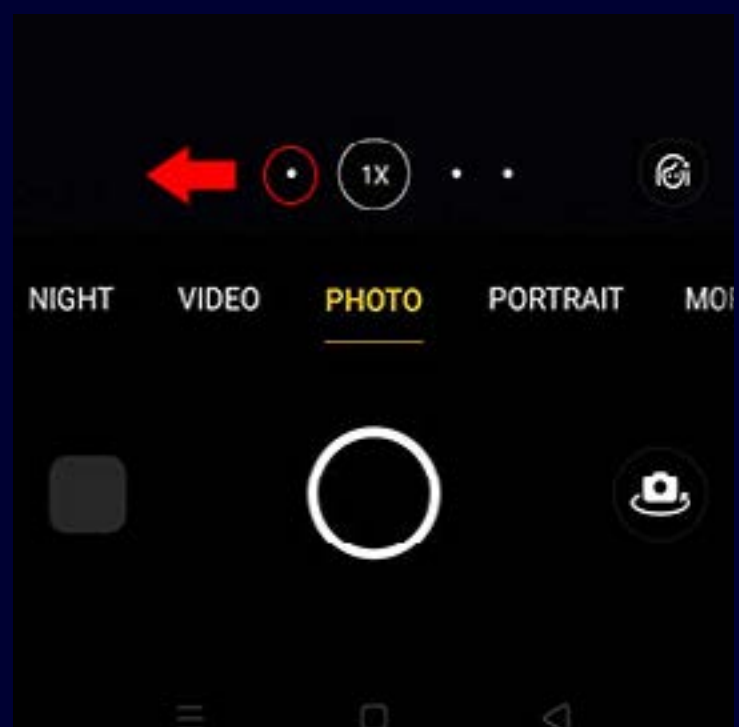


- To ensure optimal image quality, it is important to prevent water droplets from forming on the lens. If water drops do appear on the lens, submerging the dome and gradually withdrawing it can help remove them. Additionally, applying a small amount of dishwashing soap on the lens can improve water sliding off, further minimizing the presence of water droplets.
- When using a GoPro or sports camera, the built-in Fisheye or Wide-Angle Lens provides clear and focused photography, capturing a comprehensive view both above and underwater simultaneously.

When using a mobile phone camera switch the camera to a wide angle photograph or video.

Explanation (How to): Turn on the [Camera] app. Then, tap on the dot before the focus/zoom icon (1X) for Wide Angle Mode.

For video use the same method



How to position the dome in the water for best results?

- Balanced straight middle Dome - (classic) straight horizon border line partial half water half air.



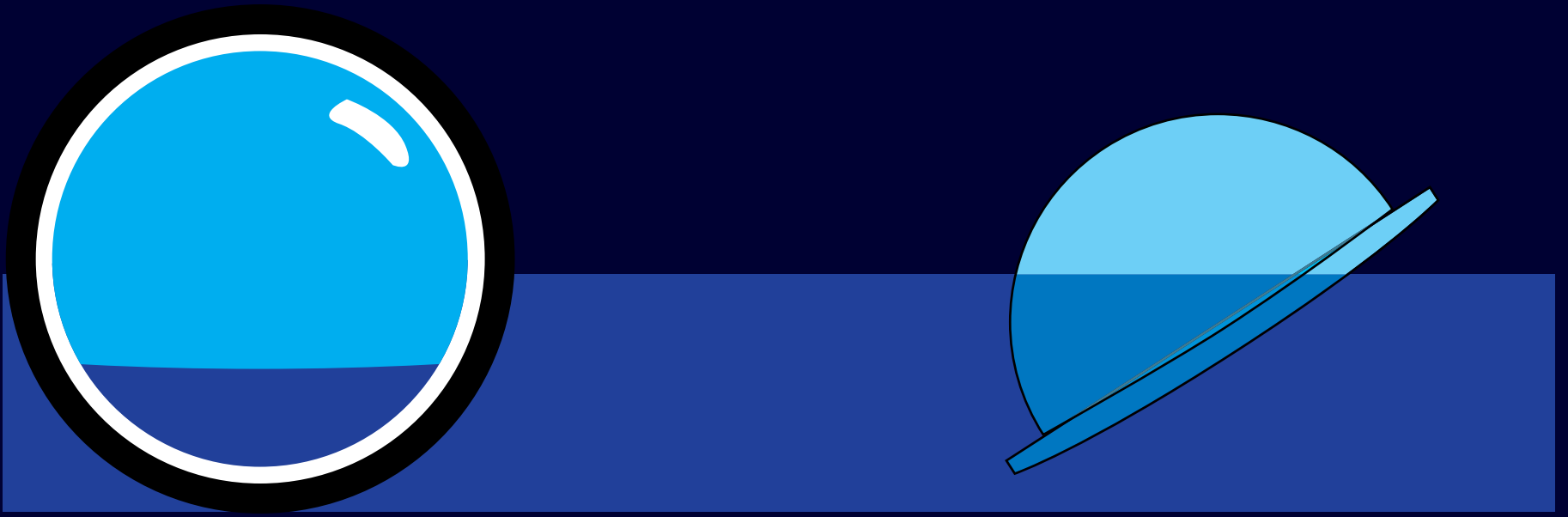
- Balanced straight with the dome upper to the waterline - will reveal the surface of the water and will give a round smile border shape.



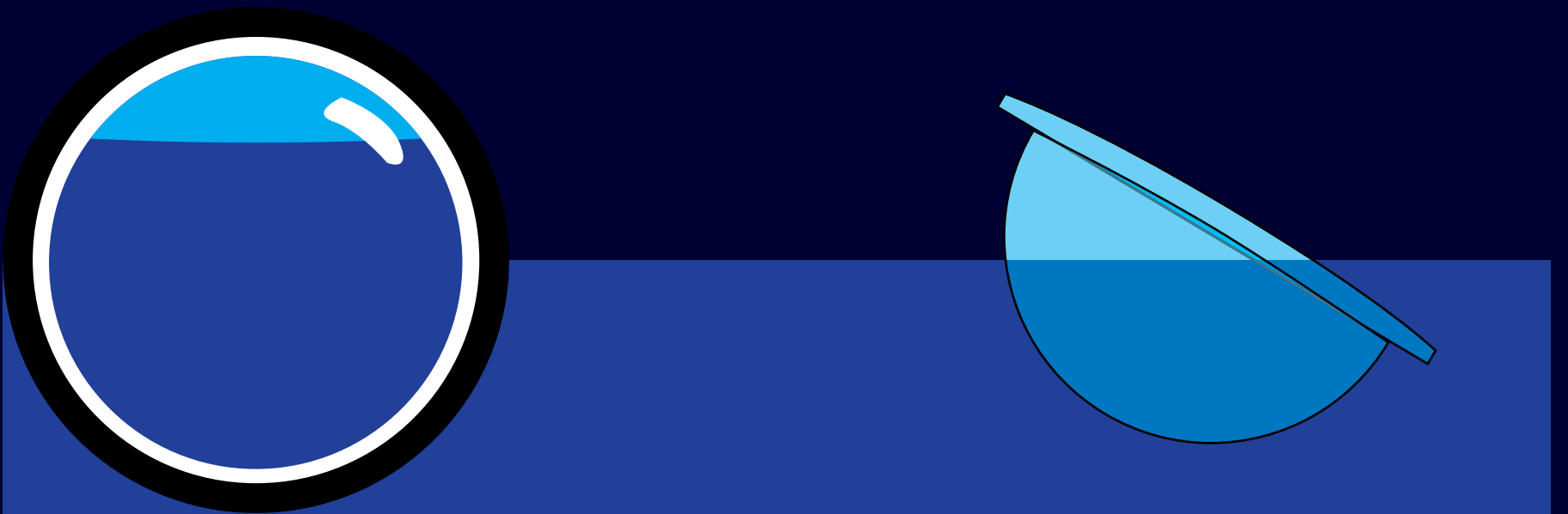
- Balanced straight submerged Dome - will reveal the surface of the water from a submerged point of view and will give a round sad border shape.



- Tilted up middle Dome - will reveal the surface of the water and will give a round smile border shape.



- Tilted down middle Dome - will reveal the surface of the water from a submerged point of view and will give a round sad border shape.



When capturing underwater details, it is essential to have sufficient light, especially on bright and sunny days. Ensure that there is adequate lighting underwater to effectively capture the desired details.

