



INSTRUCTIONS

ROGETI® 360

SPHERICAL VR HEAD

360-220-1
PATENT PENDING
MADE IN CHINA



Introduction

The "ROGETI 360" Panoramic Head, is the latest professional product created by ROGETI, and the most innovative panoramic head in the market. The "ROGETI 360" is a modular multi-row design where each module can be used individually or in conjunction with other modular products from ROGETI. Modular design offers the flexibility to fit and adapt to your panoramic workflow.

The modular design of the "ROGETI 360" allows your camera to rotate both vertically and horizontally. The design brings a more efficient experience in photo stitching, improving both accuracy and saving time in post-production. An innovative nadir patching solution eases the difficulties often associated with this step.

The main bracket is the core structure of the "ROGETI 360", and is CNC cut from a single block of aluminium alloy. This guarantees superior strength, rigidity and lightness for the product.

The "ROGETI 360" isn't just another panoramic head in the market. From the design concept and uncompromising build quality, it sets new standards for this level of functionality in the market. It gives a never before seen combination of high accuracy, reduced errors and light weight in a multifunctional panoramic head. For ease of use and practicality, the "ROGETI 360" comes with its own custom hard case as standard, making it easy to transport and protect.

FAQ About The Equipment

Q: What are the best compatible cameras and sensor formats?

A: The "ROGETI 360" is compatible with most of the cameras in the market. Full-frame camera bodies are an ideal setup and mirrorless cameras are highly recommended, Canon R5 & R6, Sony a7 & a9 series for examples. Note that cameras with an integral vertical grip such as Canon 1Dx Series, are not compatible, the length of the main bracket is insufficient to use these cameras.

Q: What lenses are suitable?

A: The fisheye lenses (Canon 8-15mm Fisheye for example) and ultra wide angles lenses are ideal for 360° X 180° spherical panoramic photos.

Q: What are the best quick release plate choices?

A: Arca Swiss formatted plates are compatible with this equipment. A quick release plate designed specifically to your camera rather than generic quick release plates will ensure your camera is aligned with the X/Y/Z axes when assembled. Ideally a centre mark on the quick release plate should indicate the nodal point of the lens for a better alignment. Failing this, the user will have to ascertain the nodal point for a particular configuration. ROGETI produces various models of quick release plates to fit different camera bodies.

Q: Is a remote shutter release needed?

A: Wireless remote shutter is the best choice. Cable remote is the second choice. The delayed shutter release function (Timer) is to some degree inferior to the remote shutter.



Setup the ROGETI 360

The arrangement permits the lens nodal point to be placed exactly at where the rotational axis of the upper rotator (CAP-360) and the lower rotator (CAP-360) meet. This eliminates parallax effects as the camera is moved on the mount.

The vertical column of the main bracket (360-220) can be used equally well to the right or left of the camera



1. Assemble the double-sided clamp (DCL-X2Y), the double-sided-dovetail rail (360-DDT), and a rotator (CAP-360) together as shown in below. Ensure that the zero mark on the dovetail rail is correctly positioned with respect to the markings on the rotator.



2. Place your camera / Arca-compatible plate, on the assembly as shown in below, make sure the camera is centred with respect to the clamp (DCL- X2Y).

Note: Some L shape quick release plates are clearly marked to indicate the centre line of the lens, such as the ROGETI L-bracket. If so, you can simply use that mark or indicator to align with the clamp (DCL- X2Y). For quick release plates without centre marks or other indication, you will have to carefully find the centre line. Usually the tripod screw hole underneath the camera is on the centre line.

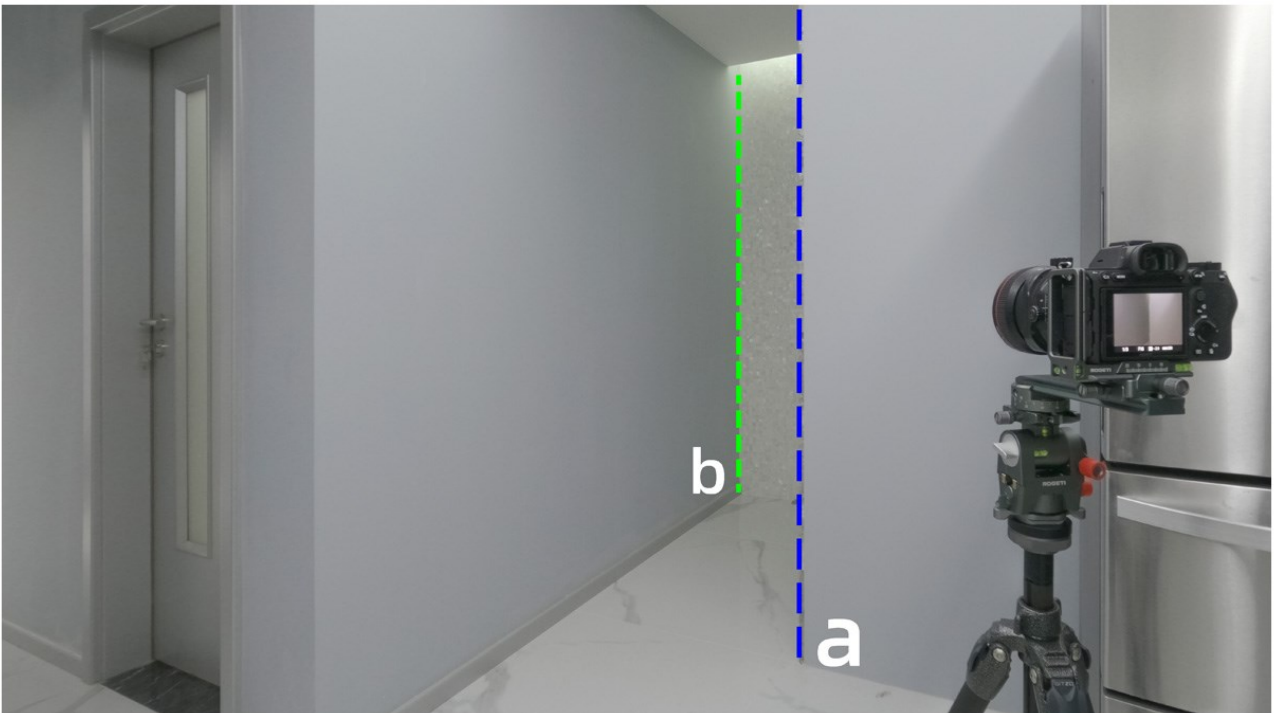


3. Slide the clamp (DCL- X2Y) on the dovetail rail (360-DDT) to have the nodal point of the lens directly above the axis of the rotation of the CAP-360. If you are using it for the first time, the following steps will help you to locate the right position.

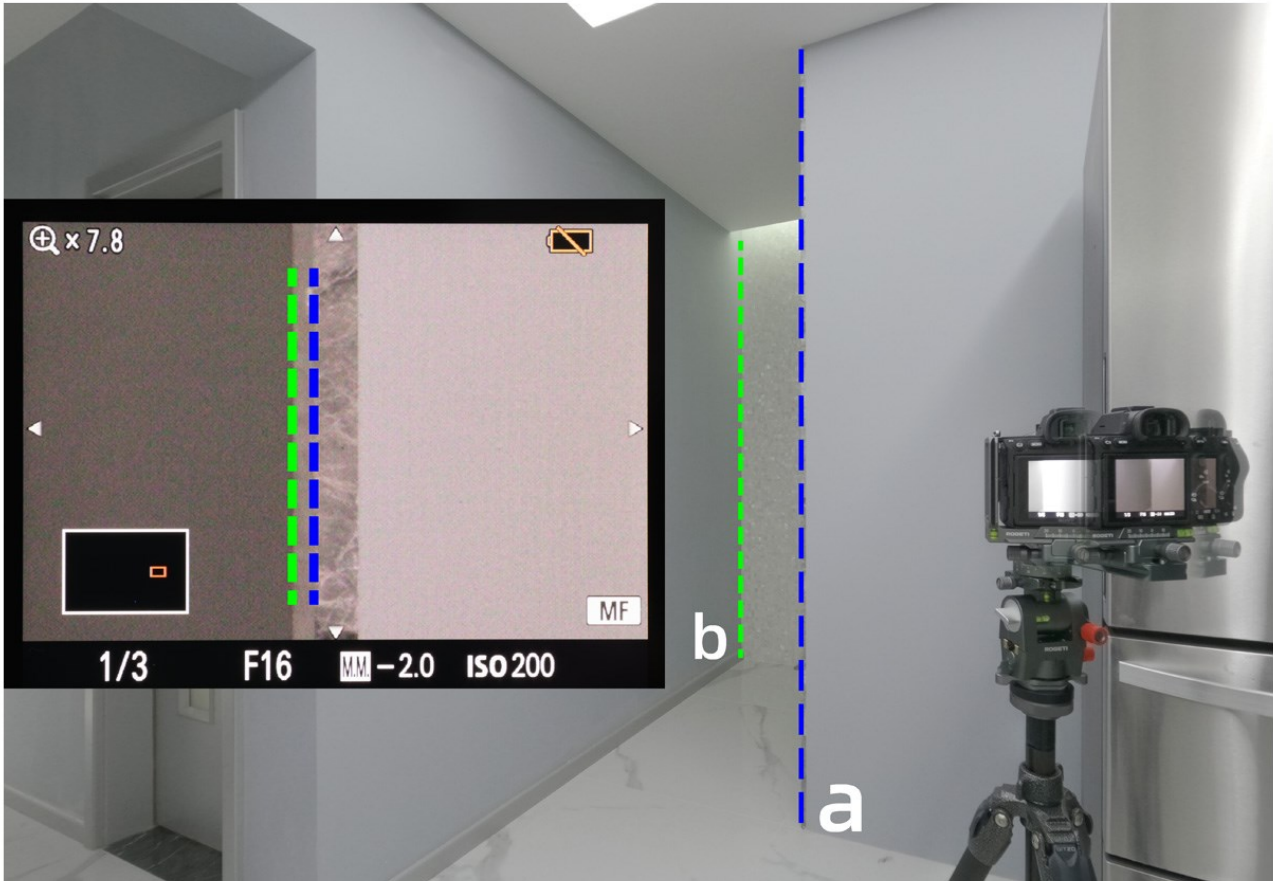
3.1 Level a tripod and head, and attach the assembly (in step2) to the head.



3.2 Look for a vertical line (a door frame or the edge of a cupboard) some 1.5m from the lens that can be lined up with another vertical line some distance further away. A door/window frame can be useful in this respect. Point the camera directly at the near vertical line and note the alignment with the distant feature.



3.3 Loosen the pan lock on the CAP-360 and pan the camera to see if the vertical lines become separated and move relative to each other. Panning to the opposite direction will reverse the apparent shift of vertical lines. If there is no change, then the lens is correctly aligned. For any movement, slide the camera towards or away from the CAP-360, using the double-sided clamp (D-CL-X2Y). At a certain position the near/far vertical lines will not shift relative position as you pan the camera. Make a note of the position of the clamp on the rail.



4. Mount the large knob to the rotator (CAP-360) of the assembly. Do not tighten the large knob.



5. Mount another rotator (CAP-360) onto the tripod. Install the main bracket (360-220) onto the rotator. Level the tripod according to the bubble level. Note: When installing the main bracket, having the device-lock knob of the CAP-360 on the opposite side of the lens will avoid the knob appearing in the panoramic image parts.

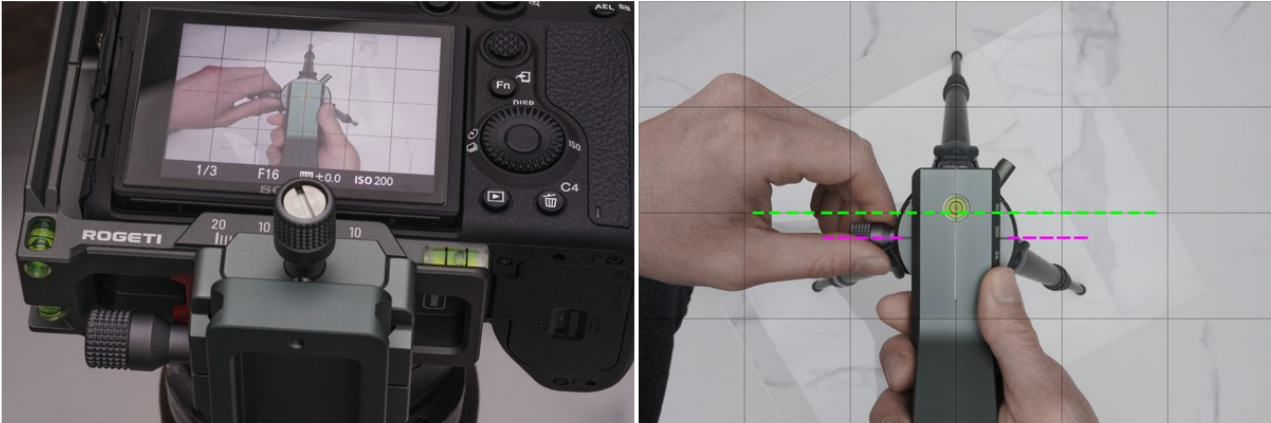


6. Place the upper assembly on the main bracket (360-220) with the pan-lock knob of the upper rotator (CAP-360) facing upward, secure with the large mounting knob when the rotator (CAP-360) is fully slid into place at the top of the main bracket.



7. Point the lens straight down. Enable square gridlines for the viewfinder/display of your camera. The aim is to centre the camera over the mount.

8. Loosen the device lock on the lower CAP-360, move the main bracket horizontally until the centre of the frame (not the centre of the bubble level) meet the centre mark on the CAP-360. Make a note of the position of main bracket corresponding to the scale on the CAP-360 for the future use.



P.S. If you have a **TSE FRAME** and want to shoot panorama with your tilt-shift lens, the step 1/2/3 and 7/8 are not needed. Simply fixing the **TSE FRAME** nodal plate directly on the the upper rotator (CAP-360) and align the marker to the centre of the clamp. Then, align the centre mark of the main bracket to the centre mark on the lower CAP-360, the node aligning is all set.



Setup your camera and lenses

Camera

1. Make sure any crop mode (e.g., the APS-C mode in a 135 full-frame camera) is turned off.
2. Ideally, use RAW + JPG for capture.
3. Apply a fixed white-balance setting (e.g., “Cloudy”) that matches the situation or environment. Avoid auto white-balance.
4. The M (manual) mode for exposure and aperture is recommended
5. Setting the ISO to a low value such as 100 or 200 will optimise image quality. Set the exposure value according to the lighting environment.

Lens

1. Ensure your lens is clean.
2. Optical filters are not recommended. Do not use Circular Polarizing Filters or GND Filters.
3. The Nodal point for zoom lenses may vary when changing focal length.
4. Smaller apertures will increase depth of field over the field of view and image quality at the corners.
5. Manual focus is recommended (2-3m is typical for interiors) and do not adjust it until an entire set of images for a given location is completed.

Taking sets of photos

1. Level the tripod, install the ROGETI 360 and the camera. Align the nodal point of the lens to the correct position. This can use previously noted settings for the camera and lens.

2. Loosen the angle lock of the upper CAP-360 and point the lens to face downwards. The lower CAP-360 of the mount should be just below the bottom of the frame. Lock the camera in place. Rotate the camera by equal angle steps to take photos of a full round. The photos should overlap horizontally by 1/3 to 1/4. The angle per step depends on the coverage of the lens.

3. Raise the direction the camera is pointing so that the bottom of its field of view overlaps the lower circle of images by 1/3 to 1/4. Repeat the process of taking photos covering a full 360° view. Depending on the lens field of view (focal length) the number of photos may be greater, to achieve the necessary overlap.

4. If the ceiling (zenith) is still not covered, take additional photos as needed, ensuring the required overlap. A single shot with the camera pointing upwards may suffice.

5. Point the camera straight downward and leave a mark (a coin or whatever) on the ground directly beneath the centre column of the tripod. This is to assist in getting a ground photo, should you wish to remove the mount from the final spherical image.

6. Slightly loosen the large knob. Lift up the upper part of the mount assembly (upper CAP-360, dovetail rail, double sided clamp and the camera) and turn it around by 180° to put it back onto the main bracket. Tighten the large knob again. The camera is now pointing downwards, but no longer at the bottom CAP-360.

7. The tripod now needs moving so that the camera points to the ground mark. Pick one leg and rotate the main bracket to position the camera at the opposite side to the chosen leg. Now move the tripod to place the ground mark in the centre of the frame. This process provides a 'fill' image for the stitching.



* You may omit steps 5 to 7 of this guide if details of the Nadir are not needed or added in postproduction.

