

## User Manual



A motorized panoramic head designed for creative photography and videography with a smartphone. It allows you to capture:

- High-quality 360° panoramic photos to create virtual tours or very high-quality photo prints.
- Panoramic selfies.
- Timelapses.
- Video travelings.

Thanks to its easy programming, it adapts to many creative needs.

## Compatibility

- Compatible with most Android smartphones and iPhones equipped with a USB port (iPhone 15).
- It only requires a Bluetooth connection to trigger the native camera app on your smartphone, allowing you to fully utilize its features (HDR, wide-angle, filters, etc.) and adapt to any new smartphone.

## Easy Configuration

- The PanoMachine is configured directly via its built-in screen and front buttons.

## Bluetooth Triggering

- Photos or videos are triggered via a Bluetooth connection when the camera app is open on your smartphone.

## Always Ready to Use

- No battery needed, it draws power directly from the smartphone's USB-C connector.  
Power Bank Option : It can also be connected to an external battery (USB-C) for long-duration timelapse shots.

## Optimized Photographic Quality

- A mid-range smartphone (Samsung S20FE) produces 30 Mpixel panoramas (corresponding to very high-quality prints of 100 x 30 cm).
- Additionally, PanoMachine will adapt to the evolution of your future smartphone camera sensors.

## Operating Modes

- **Panorama Mode:** Capture high-definition HDR panoramic photos (example: 50 Mpixels with a Samsung S20FE). Images are saved in your smartphone's gallery and must be assembled using a third-party application if necessary (e.g., Bimostitch on Google Play).
- **Timelapse Mode:** Create high-quality timelapses with all your smartphone's features. Images must be assembled by a third-party application (e.g., VirtualDub on Windows).
- **Panoramic Video Mode:** Perform video travelings or capture continuous panoramas directly via your smartphone's video app. Note, however, that the quality will generally be lower than in photo mode (video quality limitation).

## Other Available Modes

- **Reset Mode:** Reset to factory settings.
- **Custom Mode:** Fine-tune settings (start delay, starting position, return to initial position, motor current, etc.).
- **Wi-Fi Mode:** Download XML files for professional assembly applications and update the firmware.

## First Use

- **1. Bluetooth Connection:** Pair the PanoMachine with your smartphone via Bluetooth (in "Settings > Connections > Bluetooth"). This connection is done once and will be automatic afterward.
- **2. Open the Camera App:** Launch the photo/video app on your smartphone. The PanoMachine will automatically trigger the shots.
- **3. Starting the Panorama:** Once your smartphone is configured (HDR enabled, wide-angle, etc.), press the START button to start the panoramic shot. You can stop at any time by pressing STOP.
- **4. Assembly:** Use an assembly application (e.g., Bimostitch) to create your panorama or virtual tour.

## Modifiable Parameters in Panorama Mode :

- **Total Angle:** Total angle of the panorama.
- **Lens Angle:** Angle of the smartphone lens (approximately 95° for a wide-angle).
- **Overlap:** Overlap between shots (30-50% recommended).
- **Direction:** Clockwise or counterclockwise.
- **Shooting Delay:** Delay between shots to allow the smartphone to record the images.
- **Double View:** Option to take an additional view at the beginning, end, or both (useful for clean panorama looping).

All these parameters are easily modifiable via the three buttons under the screen. The side button (home/start) allows you to exit the programming mode at any time.

## Tips for Better Use

When chaining multiple panoramas, the "Double View" option allows you to take an additional view, which is practical for identifying transitions. This also allows you to choose the best photo in case of unexpected events (e.g., a person moving in the scene).

