

Virtual Reality -360 degree Image

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Abstract

A 360-degree photo is a movable panoramic image that surrounds the original point from which the shot was taken.

The users can look around the surrounding parts of the image by panning the screen or with the help of special hardware such as gyroscope where tilting enables the device to work as virtual panning.

The ability to turn around and look at the surrounding environment is achieved through a combination of software and a number of panoramic photos. The panoramic photos are lined up to make a continuous circle. The digital cameras often have built-in software that helps to align the shots. Once enough shots of the surrounding areas are taken, the pictures are either uploaded to an application to be converted into a 360-degree photo or created through a mobile app on a smart phone. When a 360 degree photo is uploaded in the Web, it can be played through Adobe flash software.

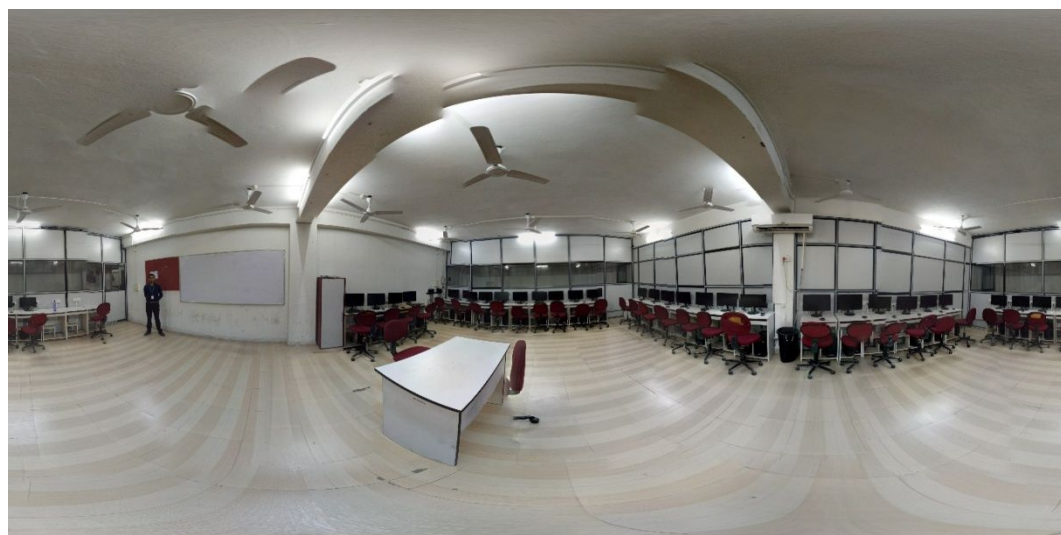
360 degree images are mainly used for showing off vistas, Architectural Visualization (both exterior and interior) and more in for a dramatic fashion that replicates the experience of being there. The demand of the 360 degree images are rapidly increasing day by day and this function has been given in some smart phones and digital camera.

Keywords: Virtual Reality, 360-degree, Panorama, Panoramic, Virtual world.

Introduction

The rise of the Virtual Reality has introduced a new era of photography in the world in the form of 360-degree photo.

You may have come across a 360-degree photo or video on Facebook, which introduced such functionality since the beginning of this year. 360-degree photos allow the viewer to interact with the image and explore the entire surroundings, around the camera from which it was captured.



Anyone can capture 360 photos and share them on social media, but to do so the person needs to buy a 360-degree camera. These cameras have two or three lenses each facing a differing direction: the 360-degree photos are created by stitching the images captured by each individual lenses to create a full 360-degree image.

By using automatic software, a 360-degree camera can stitch each side of the image together.

Beside this, a person can also create a 360 degree image by using a simple android or IOS smart phone with the help of a couple of software.

Basic requirements for 360-degree photo

For creating a 360-degree photo, we need a basic android device which should be running on android version 5.0.0 or higher, along with 5mp auto-focus support camera and gyroscope sensor.

Process of creating 360-degree photo

The key software which is required for this process is Google Cam which can be downloaded from play store. In the following section, the step by step guide for creating a 360 degree photo will be given:-

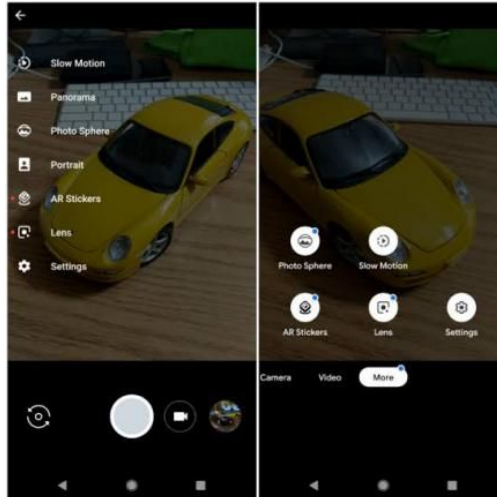
1. Install Google cam in your android device.



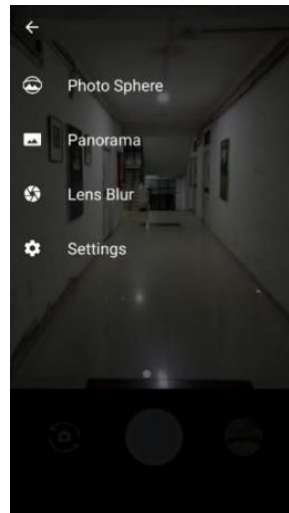
2. Open the Software.



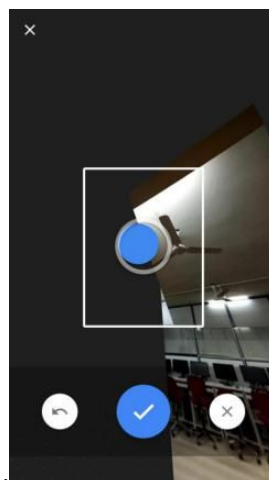
3. Swipe the screen from left to right or tap on the option button.



4. Select the photo sphere mode.



5. Then click all the pictures of the surroundings from different angles, the camera will inform you how to capture the images



6. At last, after capturing all the photos of your surrounding the app will process the images and export it in 360-degree photo



In the previous years, creating a 360 degree image was both time consuming and expensive. But with the introduction of new features to the smart phones in terms of both hardware and software, the time and cost efficiency in this process can be cut down to the minimal in comparison with its former process of creating such images. Though the quality of the image can vary from devices to device but with a decent quality flagship smart phone, one can capture high quality 360 degree image and share them online in order to store certain memories or show off their creativity in a way which is completely new and competent to enhance the capability of the users to interact with the image.

Use- web, Google maps, special events.

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