

## Lesson: Shooting in 360-degrees



Producing 360-degree and virtual reality videos can be exciting--but also a little complicated because you're using a camera with multiple lenses. Try out these suggestions for a more successful shoot!

### ✓ Directing the audience

Shooting in 360-degrees for VR and 360 video is more than just the shot--it's about the entire scene. **Virtual reality (VR) and 360-degree videos (360) are designed to put the audience in the center of the video's universe** so it's key to consider how you'll guide them through each scene and what they'll be able to see in all directions around them. In this lesson you'll find some suggestions and techniques for shooting in 360-degrees. Keep in mind that this is a fast-changing landscape and these are not concrete rules. While there are some general parameters for shooting in 360-degrees, the technology is constantly evolving, so be sure to leave room for experimentation and testing out new things.

Creators have found success by making sure the VR or 360 video experience is in some way "about" the viewer. Remember, your audience can't voluntarily move, but they can look around. You can give cues through audio, lighting, and even your actors' gazes that encourage viewers to check out the scene. Reward their exploration and give them a reason to explore the environment you've created. If

there's no reason to look around, you may reconsider whether or not your video should be shot in 360 degrees.

Before you start shooting in 360-degrees, consider these questions:

- Where does the audience fit? What role do they play?
- Are they stationary? If so, why? Is it part of the story?
- What cues can you add to direct their attention towards the action?

Because this technology is new, your audience may not expect that your video can be explored in 360-degrees so it's a good idea to communicate this at the beginning of your video. Beyond verbalizing it, you could also put "360" in the video title and description or add arrow graphics showing them how to view.

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### ✓ Treat the camera like a person

Shooting in 360-degrees requires a special type of camera with at least two lenses. Since the viewer is going to be watching from the middle of the action instead of from behind a camera, it's a good idea to frame your shots a little differently.

One way to think about shooting in 360 is to treat the camera like a person. For example, if you hold a 360-degree camera in your hand, the viewer may feel like they are a tiny person in the palm of King Kong. If you place the camera on the floor, the viewer will see the floor and could make them feel like they are six inches tall. It's more natural to place the camera at the eye level of a person who is sitting or standing.

Here are a few suggestions for setting up your 360-degree shoot:

- If you move the camera, it should be steadily, with no acceleration or deceleration, ideally in a straight line with no rotation. Try not to rotate it--panning, tilting, and rolling the camera can make your viewers nauseous.
- Consider stabilizing your camera on a tripod or monopod.
- Help viewers know where to look without being too controlling. Verbal instructions are OK for this but can you experiment with lighting and sound cues?
- Allow time for the viewer to get oriented to a new location. In other words, don't cut to different scenes too often. Think of each location as the viewer taking off a blindfold. They'll have a moment of "where am I?" Consider how long it

will take to explore each shot, then move on to the next place.

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## ✓ Stitching it all together

Once the separate recordings from each camera are captured, the footage gets assembled in a process called “**stitching**” to create the full, immersive world. Stitching has traditionally been done manually in post production, but cameras are now being developed that do it themselves.

When you bring the images of several cameras together, you might see **stitch lines**--the edges of each separate shot. Stitch lines can be problematic. For example, if someone walks through a stitch line, the person can appear distorted. Stitch lines are a fact of life when shooting in 360-degrees but these tips can help you work around them:

- First, plan your scene around the stitch lines. Be aware of where they fall for your particular camera, and try to have actors play to a specific lens to avoid placing themselves in a stitch.
  - Get sneaky and see where you could conceal stitch lines--like in the patterns of curtains or rugs.
  - Stitches are more obvious the closer they are to the camera, so try to avoid having close objects of interest fall across a stitch line.
  - Be clever with your cameraman--consider hiding them in plain sight or setting up the shot, pressing record and then hiding around the corner.
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## ✓ Audio and post production

Audio is one of the most important factors in creating a true immersive experience. When you get comfortable shooting in 360, the next step might be to invest in an ambisonic or ‘spatial’ microphone. These record sound in all directions, and later tie those sounds to specific visuals in your video. The viewer will not only see that car approaching, they will hear it as well.

Post production for VR and 360 video can be more complicated because you’re shooting with several lenses at once, but the end result is an experiential video that can show off your creativity and passion in a new, innovative way.

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## Try it

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Plan out exactly what you would need to shoot a video in 360. First, decide on a viable idea that would work in 360. What would keep your audience engaged? How can you lead them from one scene to the next? Decide on the role of the viewer, and the camera placement in each scene. Identify the crew you'll need (actors, editors, post-production staff, etc.) Which ones should have experience with shooting in 360? With this information, can you create a budget and workplan for your production?

## Check your knowledge

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What is a stitch line?

- When an actor moves from scene to scene.
- A timeline for 360-degree post-production.
- The place where the edge of two camera lenses meet.
- Lines that appear when you move your 360-degree camera up to the sky.

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How can you encourage your audience to look explore your 360-degree video?

- Add text or graphical overlays to highlight an object.
- Have an actor gaze intently over to where you want the audience to go.
- Use sound effects to emphasize a particular place in your video.
- All of the above.

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Moving the camera with great intensity makes for an exciting experience for the viewer.

- True.
- False.