



Green screens are the most popular color of Chroma Key surface.

- Would your video conferencing benefit from including changing background images or even live action video footage? With Draper's Chroma Key Backgrounds your video conferencing will never be static or lifeless again.

Chroma key surfaces—also called “Blue screens” and “Green screens,” have been used for years by photographers and movie producers place actors or other subjects in another setting without leaving the confines of a studio. They are still used for these purposes today, and also used for video production and recording. Chroma Key surfaces can also be used for video conferencing backgrounds, allowing you to change the background image or use live action video footage to make video conferences more dynamic.

Blue was the original Chroma Key background color. It works well with film. It's on the opposite end of the color spectrum from red and orange—and those colors are found in skin tones. So, when keying out the blue color, there's no chance that the subject's face or hands and arms will have blue coming through to be visible onscreen.

Over the years, green has also come into widespread use for this purpose. In fact, green is now the more popular of the two Chroma Key screen colors. Although it is more to the center of the color spectrum, it is still far enough away from red that it is good for tones.

So does it really matter which color you use?

The answer is: It depends. While many people prefer green, blue remains available and, in some cases, preferred alternative.

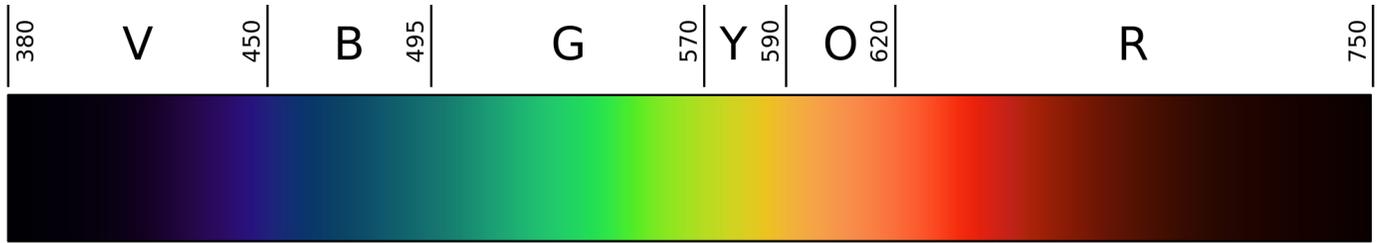
WHAT COLORS ARE BEING USED?

While there are technical reasons for using blue or green, the most basic is this: What are your subjects wearing, and what other colors are in the shot? If you're shooting a segment on house plants, for instance, blue would be the obvious choice. If people will be wearing the company shirt, and your corporate logo on your company shirt has blue in it, backgrounds should probably be green.

THE BRIGHTNESS FACTOR

One advantage a green screen can have is brightness. Many of today's digital cameras use the green channel to carry luminance, and green is the color to which they are most sensitive. Chroma Key Green is about twice as “bright” as blue—just about a whole f-stop—so you don't have to use as much lighting.

WHITE PAPER: CHROMA KEY BACKGROUNDS: GREEN OR BLUE?



Blue and green are both away from reds on the color spectrum, but green is closer.



Blue screens are still a viable option and have advantages in some circumstances.



Images to be composited may affect Chroma Key choice.

However, the increased brightness of green can have a downside. It can tend to contaminate shots more readily in an effect called “spillage,” where the green spills over onto the edges of the subject on camera. One way to reduce this effect is to leave plenty of space between the subject and the background.

While you have to use more lighting with blue, the fact the blue sensors in digital cameras have lower luminosity means there will be less of the spillover discussed above. That means a cleaner key, and less work in post-production cleaning up the messy edges.

DAY OR NIGHT?

If you will be compositing in a background which was shot during the day, green is the better choice. Greens left over should blend much better into the brighter daylight background. As a darker color, blue performs much better if you’re compositing an image with darker scenes or footage shot at night, while green spillover is much more easily seen.

HOW MUCH ROOM?

How big is the studio space or exterior location you plan to use? Because green is so much brighter, there needs to be

plenty of space between the subject and the background. The closer your subject is to the green background, the more likely you are to see the spillover mentioned earlier. You should have enough room to leave roughly six to ten feet between the subject and the background.

SPLIT DECISION?

In the end, while green and blue each has its advantages and disadvantages depending on the situation, the choice of which color to use comes down to personal preference.

Draper offers both blue and green Chroma Key backgrounds. Our blue LAB color is L: 9, A: 50, B: -77, or 2735c PMS Color Match Chroma Blue. Our green LAB color is L: 60, A: -47.5, B: 29.6, or 354c PMS Color Match Chroma Green.

For more information on Chroma Key surfaces, go to draperinc.com/projectionscreens/surfaces.aspx, click “Chroma Key” under “Viewing Surface Families,” then select the desired color.

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