

Set up a green screen studio



You must not believe everything that Hollywood and Co presents to us. In film, a wide variety of tricks are used. One of the most common we find in the so-called green or blue screen technique

As part of a Bibellesebund camp on the theme of "Steven Spielfilm - das Geheimnis des roten Fadens" in Valbella, I was allowed to set up a small green screen studio myself. For the children it was a great experience to see for themselves on a small scale how such a film can be made and what is possible through such techniques.

What is the green screen technique?

I'm sure many have heard of this technique, especially those who know a bit about film. For the rest of you, here's a little description:

In technical terms, this technique is called "chroma-keying". The background is either a green or blue wall. This green or blue background can be replaced by any background in the post-processing stage. So you can put yourself or others into any scene.

Why actually green and blue?

But why is green or blue used for this? The reason is actually quite simple: in no skin type green or blue tones are found. Depending on the skin type, this goes more into brown, black, yellow or red. Green and blue are therefore perfectly suitable.

A short introduction video

In the camp I was goofy editor and responsible for all the video technology. In this short video I wanted to illustrate what is possible through green screen or blue screen techniques.

What do you need for a green screen studio?

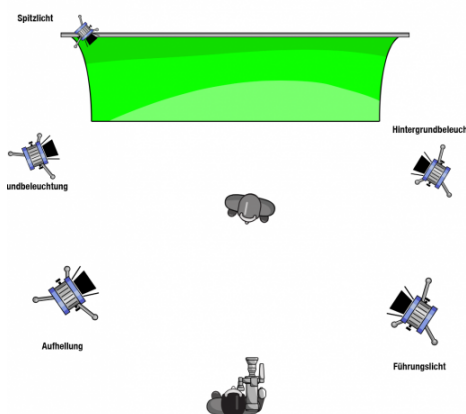
For a green screen studio you need some stuff. Here's a list of what you need:

- Green or blue cotton fabric, or green or blue wall or other appropriate material. We used a cotton fabric of 3 by 4 meters.
- Tripods and crossbar or other means of mounting. We used a tripod set from Manfrotto (MA 1314B).
- Spotlight for backlighting: the screen should be well and evenly lit. No spots should be overlit. The best way to determine if spots are overlit is to use the "Zebra" feature on many camera models. We used two LED spotlights, which we directed against the wall to create an indirect light. However, lights with softboxes can also be used.
- Floodlights for foreground lighting: Here we usually work with a classic three-point lighting. The **guide light** is the main light source and therefore the strongest light. It is directed from about 45° from the camera slightly above the actor. This light provides the shadows on the face. On the other half of the face is the **brightening**. This is weaker than the leading light and, as the name implies, brightens the shadows created. The third light in this lighting technique is the **peak light**. It is positioned from behind opposite the leading light and illuminates shoulder and hair areas, setting the actor apart from the background.

Setting up the studio

- First, the green or blue wall is set up.
- Then the screen is lit and checked with the camera.
- Third, the three-point lighting is installed.

Attach cables neatly to the floor so there are no tripping hazards! Below is a sketch of what the green screen studio should look like.



Notes and rules for studio use

- As a rule, the fabric is designed so that the actors can also move on the screen. This also allows for full body shots. Clean shoes are mandatory on set.

- The distance from the actor to the screen should be 1.5 - 2 meters. This prevents shadows on the screen.
- After the shoot, the studio must be cleaned up so that the next group can look forward to the shoot.

The post-production

For the post-production you need a video editing program that supports chroma-keying. Preferably software like Adobe After Effects, Adobe Premiere, Final Cut (OSX), Magix Video Deluxe, or similar

Source credits

- Cover photo: René Graf
- Image and video footage: René Graf (www.ichthys-films.ch)