What is Stop Motion Animation?

Stop motion animation (also called stop frame animation) is animation that is captured one frame at time, with physical objects that are moved between frames. When you play back the sequence of images rapidly, it creates the illusion of movement. If you understand how 2D drawn animation (early Disney) works, stop motion is similar, except using physical objects instead of drawings.

The basic process of animation involves taking a photograph of your objects or characters, moving them slightly, and taking another photograph. When you play back the images consecutively, the objects or characters appear to move on their own.
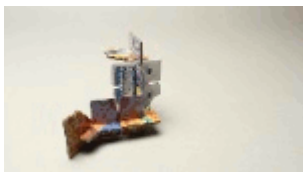

FRAME 1

FRAME 2

FRAME 3

FRAME 4

ANIMATED

You see stop motion animation all the time—in commercials, music videos, television shows and feature films—even if you don't realize it. While it is common for people to think of stop motion as just one specific style, such as

clay animation, the reality is that stop motion techniques can be used to create a wide range of film styles:

Tools Required To Make Stop Motion Animation

If you want to try stop-motion animation at home, you can do it with simple tools. They

include:

Camera
To capture the image, you can use a smartphone or a digital camera like a DSLR.

Tripod
A stand or holster to keep your camera steady.

Editing Software
To edit the frames together in an animation.

Materials/Objects
Inanimate objects become your subject of animation.

How To Process Stop Motion Animation?

1. Find Your Setting
The first step when you wish to stop motion animation is to establish where you can

place your camera. Further, fill your frame with the location or backdrop and ensure

not to capture the edges outside your frame to maintain consistency.

2. Set Your Camera Right
You need to limit your camera shakes to have a good setup for your stop-motion video.

For this purpose, you can use a tripod or a stand to maintain your camera in a stable

position.

3. Use A Remote Trigger Or Timer
You will get an elegant stop-motion animation when you avoid clicking your camera

every time. You can trigger your camera using a remote or set a timer to take a picture

every few seconds to make this possible.

4. Shoot With Manual Settings

When you shoot the picture with your camera in auto mode, the settings will adjust the camera itself to every image you take, resulting in a flickering effect. However, setting a uniform shutter speed, ISO, aperture, and white balance helps overcome this issue.

5. Control Your Lighting

Too much lighting can cause shadows and minor flickerings that may not suit your animation. Hence, always be mindful of windows and maintain only essential lighting to allow you to see your objects.

6. Frame Rate

As a beginner, it is enough for you to know that a second of video constitutes 12 frames. However, if you exceed this rate, your video can become jittery.

7. Move-In Small Increments

Move your objects in small, consistent increments to create a smooth animation. On the other hand, if you want your things to appear slower, you can move the objects quickly.

8. Audio

Once you are done shooting the silent stop-motion animation, you can add some audio to your video to make it enjoyable. For this purpose, opt for a dedicated stop motion software or app.

Object animation

Object animation is a fascinating form of **stop motion animation** that brings everyday items to life. Here are the key points about object animation:

1. **Definition and Technique**:
- Object animation involves animating non-drawn objects such as **toys, blocks, dolls, and similar items**.
- Unlike plasticine (clay) or wax, these objects are **not fully malleable** and are not designed to resemble recognizable human or animal characters.
- Animators physically manipulate these objects, capturing each movement frame by frame. When played back, the sequence creates the illusion of motion.
2. **Distinct from Model and Puppet Animation**:
- **Model Animation**: Uses recognizable characters (such as clay figures or puppets) as subjects.
- **Puppet Animation**: Features characters with articulated joints.
- **Object animation** works with **pre-existing objects** like static toy soldiers, LEGO bricks, or construction toys. These objects are not inherently designed as characters.
3. **Combining Techniques**:
- Object animation is often combined with other forms of animation for more realism.
- For example, a toy car might be animated using object animation, while a character (often in puppet or model animation style) is seen driving the car.

Pixilation Animation

Before jumping into a definition of pixilation, we want to stress that we are not misspelling the word. "Pixelation" with an "e" is a different thing all together; that's when you zoom in on an image and you can make out the individual blocks (pixels) that it's made of. In other words, it has nothing to do with "pixilation" with an "i," which we will get into below.

Pixilation is a filmmaking technique where live actors and objects are shot frame-by-frame to simulate movement. This results in an animated-looking movie, where a human, and the things around them, move without being touched. The actual can often appear jerky or smooth, depending on gaps of motion between in each frame.

The name seems to come from the word "pixilated," which itself is a reference to someone being under the influence of pixies (yes, the small magical flying ones). Due to pixilation often representing human beings seemingly moving around on their own, it makes some amount of sense.

Stop-Motion Vs Pixilation

No doubt pixilation will remind you of stop-motion animation, and that's mainly because they're almost the same thing. The key difference is that stop-motion animation involves models, along with sets, that are 100% manipulated by a director/animator. Compare with pixilation, where a human being and their surroundings are manipulated, but that's all. In both cases, everything is shot frame-by-frame.

Characteristics of Pixilation include:

- Frame-by-frame filmmaking process
- Jerky and unnatural looking movement
- Surreal and fantastical subject matter
- Due to the laborious process, short films and music videos are where this style is usually found
- Usually only reserved for specific moments and VFX shots in full-length movies

Pixilation is often used as a tool for creating a unique and comical movie, and has its origins dating as far back as the 1900s. In some movies, like *Hôtel électrique* (1908), objects are used around the character in such a way that they are affecting them without any other person's touch