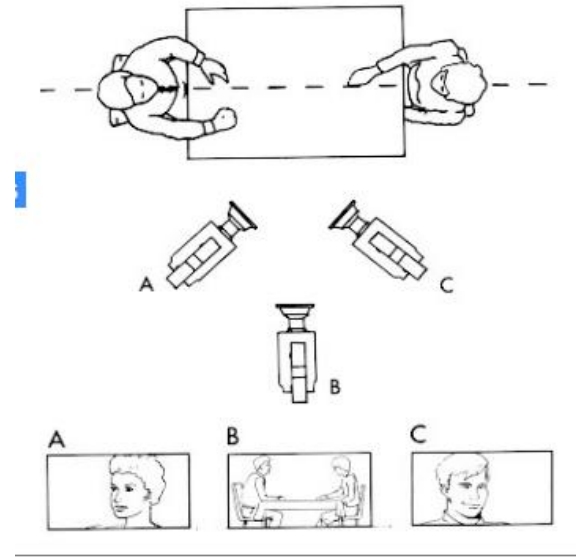


# Camera distance and positioning

Just as important as the shot you choose, and whether your camera is static or moving, is the position of the camera when the shot is taken. The camera position (also known as camera angle) impacts on the way we interpret a film sequence.

In **traditional film production**, multiple cameras are often used to shoot each scene. (See the camera positions A, B, and C in the figure on the right). Actors play the same scene a number of times until the director is satisfied with their performance and also until each scene is recorded using all the camera positions that may be needed.

In the **editing** phase, selected **shots** are assembled into a **scene**, scenes into the final piece. The editing is done in a such way that the story is told most effectively. A large amount of what's recorded will not be included in the final edited work, not even the deleted scenes on DVDs!



**Two major categories of shots:** Commonly used shot types in film, video, and animation can be categorized into two major groups: **static shots** and **dynamic shots**.

In a **static shot**, the camera does not move or change its aim within the shot, although the camera may move from the shot to the next shot.

In a **dynamic shot**, the camera moves or changes its aim within the shot.

## Static shots

There are many types of static shots and can be categorized in multiple ways. We will see how static shots are identified by A) scale and then B) angle. And see C) the point of view shots, D) two shot sand over the shoulder shots.

**Static shots: A) scale.** One set of shots are identified by their **scale** or **shot sizes**. The shot size determines how large the area that's visible within the frame. Among the following common shot sizes, the distance between the camera and subject varies:

Here are some of the most common types of shots and how you can go about using them:

## Establishing shot

Often included at the beginning of a scene, the establishing shot helps to build ambiance and may give a nod towards the context of what's to come. It generally comes in the form of a long shot and indicates where (and sometimes when) the scene is taking place.

### Full shot

**The full shot is just as the name implies and shows the entire body of the subject from head to toe. This shot tends to focus more on the character's movement and gestures, rather than their state of mind.**

### Medium shot

Also known as the  $\frac{3}{4}$  shot, the medium shot typically shows the subject from the knees up. It allows the viewer to see the background environment and the character's gestures, while still being close enough to capture their emotions.

### Close shot

With a close shot, the subject's head/face takes up the majority of the frame and therefore, allows their reactions and emotions to dictate the scene. The subject becomes the prominent focus and helps the audience build a personal connection, without being distracted by background interferences.

### Extreme close shot

An extreme close shot is so close that only one specific detail, such as a person's eyes or mouth, can be seen. Because of the unnaturally close nature of the shot, it should be used sparingly, but when used appropriately, an ECS can be incredibly effective at adding drama to a scene. It allows the viewer to see details that may have otherwise gone unnoticed and can really accentuate the emotions that the subject is experiencing.

### Up shot

An up shot is taken from below the eye-level of the subject and creates the perception that the viewer is looking at them from a lower perspective. This type of shot can give the impression that the subject is in some way powerful, heroic or even dangerous.

### Down shot

A down shot, in contrast to an up shot, is taken from above the eye-level of the subject and can make the subject seem vulnerable or powerless.

### Over the shoulder shot

This type of shot is taken from behind the shoulder of another character and typically frames the subject in a medium or close shot. It is particularly effective in group conversation scenes and helps establish which characters are speaking to each other.

### Two shot

A two shot presents two characters together within the same frame. It's a natural means of introducing both people and can be used to shed light on their relationship with one another. Different variations of the two shot can be applied to deliver different messages about the characters. For example, when characters are positioned next to each other, it may give the impression that they have equal prominence within the scene.

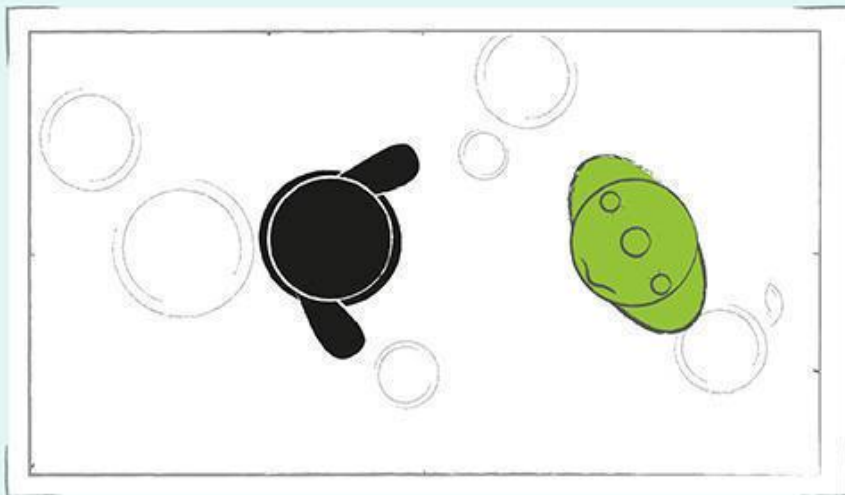
### Point of view shot

The point of view shot, also known as the POV shot, depicts an angle that shows what a character is looking at. This type of shot allows the viewer to take on the perspective of the character and begin to understand their state of mind on a more personal level.

**Static shots: B) Angle.** Another set of shots are identified by their camera angles. Changing the camera angle changes the appearance and function of your shot.

Take a look at the camera angles below to familiarise yourself with their names and how they might be used. The **Camera Angles** worksheet is also available to download.

### Top shot/Bird's eye view



#### Top shot/Bird's eye view

A bird's eye view shot is filmed from above the characters. Filming from this angle can give the audience an overview of setting.

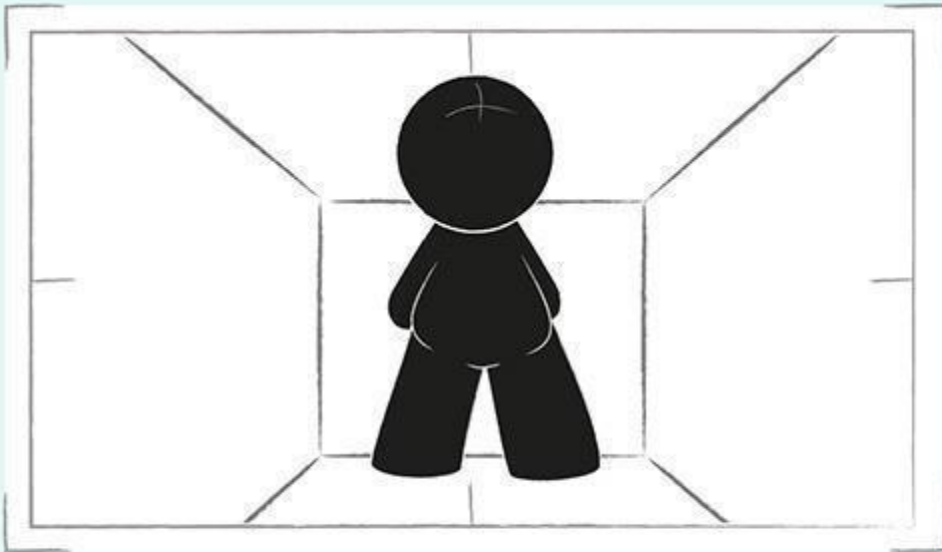
## Worm's eye view



### Worm's eye view

A worm's eye view is filmed from ground level, looking up at the character. Filming from this angle creates a dramatic effect.

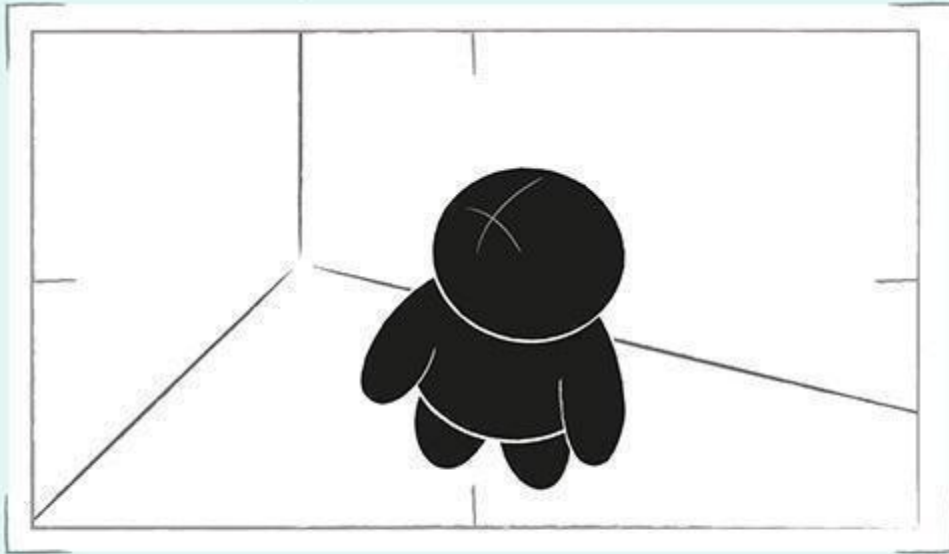
## Low angle



### Low angle

A low angle shot is filmed from below eye level. Filming from this angle may make the character appear larger or more powerful.

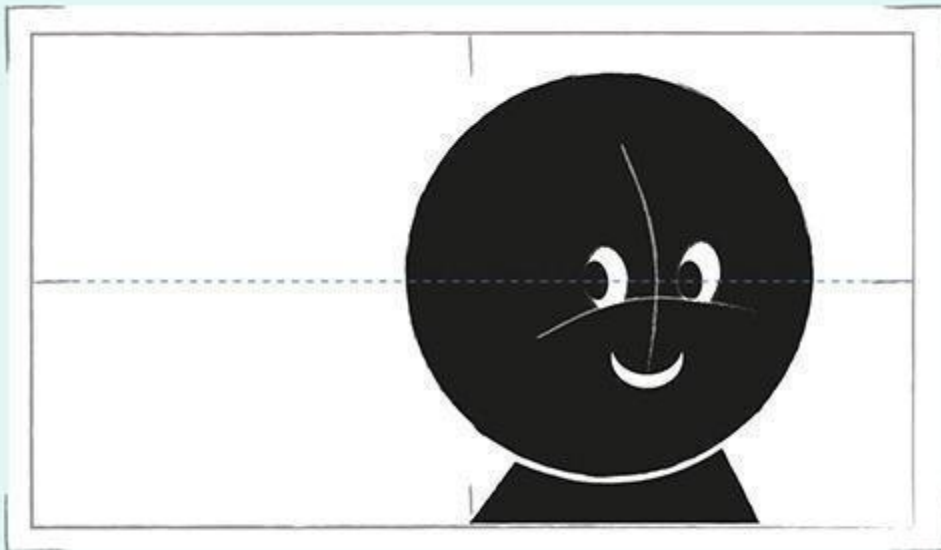
## High angle



### High angle

A high angle shot is filmed from above eye level. Filming from this angle may make your character appear smaller or more vulnerable.

## Eye level



### Eye level

An eye level shot is filmed at the character's eye level. Filming from this angle is usually a neutral position and allows the audience to become comfortable with the characters.

**Dynamic shots.** The camera position is often animated in computer animation for no good reason or no reason at all simply because the virtual camera can be moved easily. If you must have dynamic shots, make the camera move realistic and effective. First, study popular types of possible **camera moves** with a real camera. Try the following:

### Zoom

Probably the most well-known camera move, zooming gives the impression of moving closer or further away from the subject. It can be used effectively to magnify a certain focus point in the frame, but other moves such as a dolly, are a more natural way to show movement. While a quick zoom can help add a sense of drama and energy when used correctly, avoid over-using zoom as your default move.

### Pan

Panning is when the camera is moved horizontally from one side to another on a central axis. This is a rotating movement in which the camera's position remains in place, but the direction that it faces changes. It can be used to follow a moving character or to fit more into a frame, for example, panning across a landscape to create a sense of place.

### Tilt

Tilting is similar to panning in that the camera is kept in a stationary position, but unlike panning (which looks from side to side) tilting focuses on upwards & downwards movements. Using a tilting motion helps to fit more into a single frame. A slow upwards tilt can be very effective in making a subject appear bigger or more significant while a downwards tilt has the opposite effect.

### Dolly

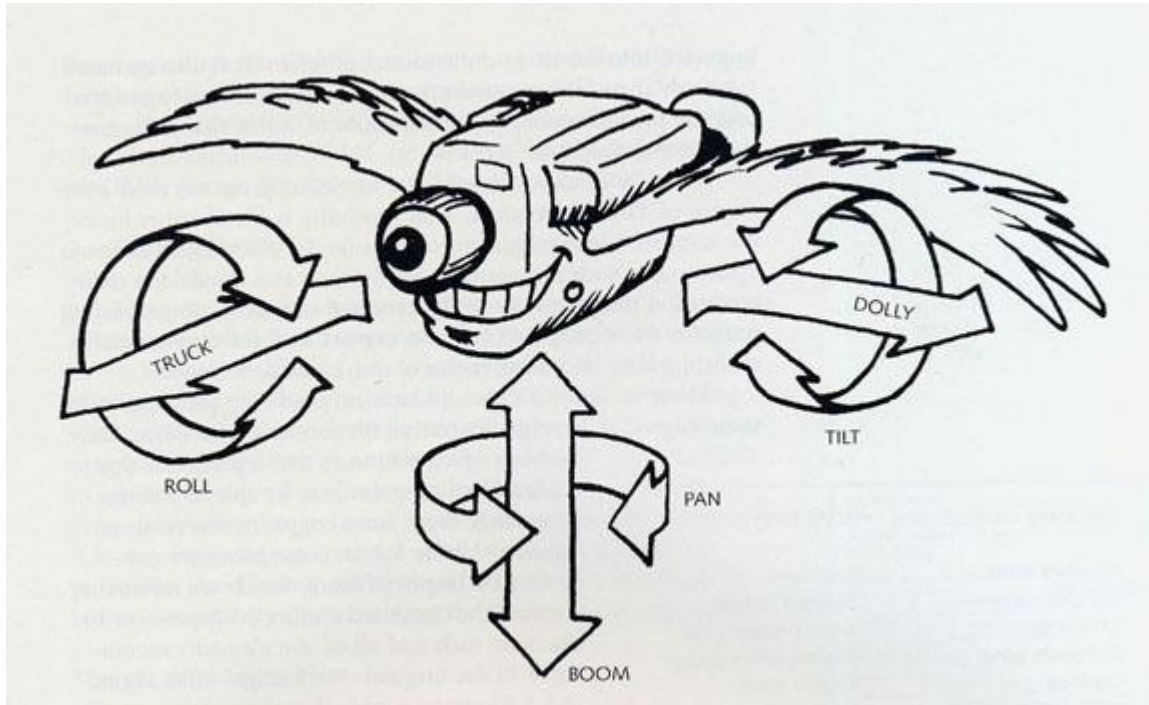
A dolly shot is when the entire camera is mounted on a track and is moved towards or away from a subject. Unlike a zoom shot, the world around the subject moves with the camera. A dolly gives the illusion that the viewer is walking towards the subject and can be a great way of creating a sense of intimacy between them.

### Truck

Similar to dollying, trucking involves moving the entire camera along a fixed point, but the motion goes from side to side, rather than in and out. It's often used to follow characters in action. Mounting the camera on a fluid motion track will help to stamp out any jerking camera movements.

### Pedestal

A pedestal (AKA Boom up/down or Jib up/down) involves moving the camera upwards or downwards in relation to a subject. It's different from tilting in that the entire camera ascends or descends, rather than just the angle of the camera. A pedestal shot can be used to frame a tall or high subject (such as a building) while keeping the framing at eye level view for the viewer.



The image is from "The Art of 3-D Computer Animation and Imaging" by Isaac Kerlow.

### Dolly vs. Zoom

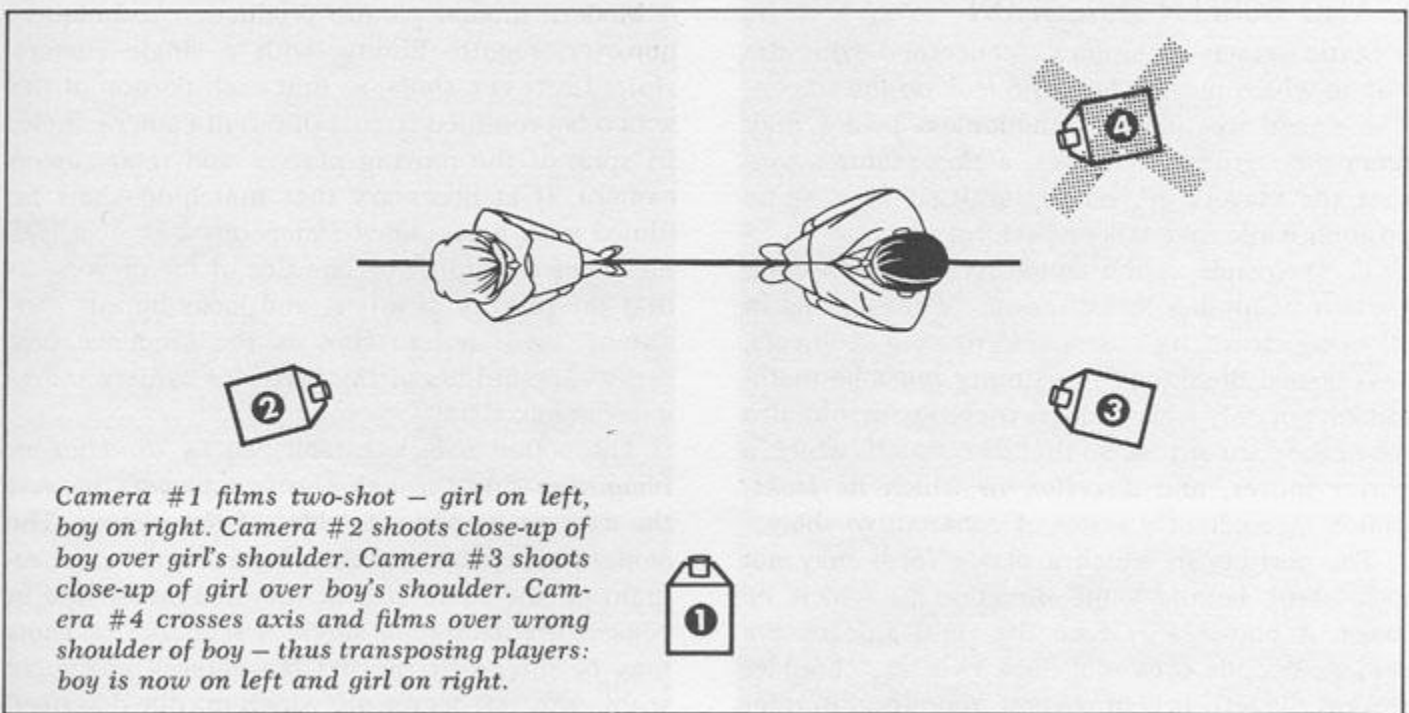
The difference between dolly and zoom is that when you dolly, you are moving the camera in space, while zoom refers to changing the camera's focal length. When you move the camera, the perspective changes. Objects far from the camera change in relative size at a slower rate than objects which are close to the camera. That is what you see through your human eyes as you walk around, your perspective changes. On the other hand, when you zoom (i.e., when you change the focal length of your camera), your camera does not move and perspective does not change. A technique in which the camera dollies in and zooms out at the same time, or zoom in and dollies out simultaneously is called "**Zolly**."

### 180 degree rule

If you plan to use multiple camera positions for an animation scene, i.e., in the editing phase, you intend to edit shots rendered from multiple cameras into a seamlessly sequenced scene, probably the most important rule is to place all the cameras on one side of a **line of action**. This rule is called **180 degree rule**.

A common type of a **line of action** is an imaginary straight line between two characters that are interacting. (See the figure below). Another type is the path which your character is traveling along. A line of action of the latter type can be a straight line or a curved line. (See the last figure in this section). No matter which type of a line of action you have in your scene, remember to place all the cameras on one side of the line of action.

Look at the following camera placements:



Line of action type 1: An imaginary straight line between two characters that are interacting

If Camera 2 and Camera 3 are used, the audience stays on one side of the line of action. These shots are called **"reverse angle shots"**.