

Tips for taking good video

Video used in Dartfish is only as good as the video that you take. Therefore, learning a few key camcorder settings will increase your chances of taking good quality video.

Important Camcorder Settings

Shutter speed: Higher shutter speeds are required for fast moving objects. The higher the shutter speed, the less light that the camcorder will pick-up. Outdoor, even on cloudy days, shutter speeds of 1/1000 will still give you enough light and help reduce the motions blur. Indoors (ie\ York University field house) you will only get a maximum shutter speed of 1/350 before the video is too dark to be visible. *Always use the highest shutter speed possible.* For more information on camcorder settings go to: <http://hometheater.about.com/blcamglossary.htm>

Aperture/F-Stop: Aperture is the adjustable opening that controls the amount of light that reaches the camcorder sensor behind it. The aperture also controls depth of field or the distance objects can be from the camera and still be in focus. The smaller the number (ie\ f1.6) the larger the opening, the more light than enters the camcorder, and the more shallow the depth of field. A shallow depth of field means that objects close to the camcorder will be in focus, and the objects further away from the camcorder will be out of focus. Conversely, the larger the number (ie\ f8.0), the smaller the opening, the less light the camcorder will pick up and the greater the depth of field. Therefore, objects close to the camera AND further away from the camera will remain in focus.

Gain: Not all consumer camcorders have this setting. Increasing this setting will amplify the available light and increase the brightness of the video. The more you increase the gain (the higher the number) the grainier your video will appear. This is often a good compromise.

Zoom: Try to zoom in as much as possible without cutting off any of your athlete's limbs (cutting off the feet is very common). Also make sure you give yourself enough room in the frame to capture the actual movement. If you are panning your camera – give yourself some extra room in the direction that you are panning the camcorder. ie\ If your athlete is running left to right, give yourself extra room in front of your athlete (extra room to the right of the camera frame).

Optical zoom vs. Digital zoom: If you need to use zoom, use optical zoom as it is a true zoom. Digital zoom increases the size of the pixels and will make your video grainy. If you have to, use all of your optical zoom and then use Dartfish to zoom in on the video after. Zooming with Dartfish is equivalent to using digital zoom but at least it is not a permanent distortion of your video.

Background: If you have a choice, try not to have a busy background. Don't have a lot of similar implements in the background (if your athletes are using an implement to perform their skill), and try to reduce the number of people in the background.

Lighting: Try to keep the sun behind the camera, be weary of shadows and try to film in bright light conditions. FYI: cloudy days outdoors are bright compared to indoor lighting – take video outdoors when at all possible.

Subjects/Athletes: Plan ahead and have athletes wear clothing that is relatively slim fitting so you can see the joints and the limb segments clearly. If your athletes wear lots of equipment (hockey or football players for example) plan ahead and have them perform the skill without the equipment on first. Clothing color choice is also important. Have the athletes wear colors that will provide a contrast with the background that they are being video taped in. For example, baggy, black clothing is usually a poor choice. Ideally, shorts and T-shirts that are slim fitting and have bright, contrasting colors should be worn by the athletes.

A note on “Sport” Setting

Many camcorders come with several built-in, pre-programmed settings such as a “Sport” setting. The Sport setting on these camcorders give priority to increased shutter speeds provided there is adequate light. More often than not, the shutter speed is not fast enough to capture video without motion blur. Try the Sport setting first and have a look at the video frame by frame in your video analysis software. If there is lots of motion blur, manually adjust the settings to get the best video quality possible, even if it means darker video. It may not be pretty, but at least you will be able to see the movements you need to.