



# 4-H Filmmaking

## Finding the Right Camera for You



Mini DV



Hard Drive with Card



Mini DV



Flash with USB

### **What you will do with your footage will determine what camera you will choose.**

The digital cameras of today are smaller and more capable than ever before. They come in all shapes and sizes, and there's a camcorder to fit almost any need or budget.

Choosing the right camera has its challenges. Since you will be editing your footage, the biggest single factor in deciding which camera to pick is the computer you are going to use to make your movie. You will need to match your camera to your computer to be able to 1. Download your footage from your camera, and 2. Edit your footage on your computer. Go check your computer, can it connect to external devices? If so, does it use a Firewire or USB port? (See section on connecting your camera to your computer.)

In general, if your computer has a firewire port, the easiest and best way to capture footage is with a camera that records to Mini DV tape. The Mini DV tape footage format has the least compression and all editing software programs can import footage from the camera's Mini DV tape.

If your computer does not have a firewire port, does it have a slot where you can plug in a firewire card adapter that will then allow you to plug a firewire cord into the computer? If so, the Mini DV camera will allow you the easiest editing.

If your computer has a USB port, then you want to consider a camera that uses a USB connection to download footage. We recommend either a Mini DVD or Hard Drive camera. Both usually come with USB cords. Before you purchase the camera you are considering, ask the camera dealer to write down what format the Mini DVD or Hard Drive camera records. Ask them if the camera records to a MPEG2 or MPEG4 file. MPEG2 is less compressed and the quality is higher for editing purposes. Once you know the recording format, you can think ahead about how you will convert the Mini DVD and Hard Drive footage to prepare it for editing on your computer. This is where you may find that you need to convert your footage (see section on Converting Footage).

If your computer lacks a USB port, then we recommend a Mini DVD camera. The Mini DVD can slide into the DVD trays of your computer and be downloaded.



# 4-H Filmmaking

## Other Things to Consider

•Will you have a computer handy to download the footage?

If not, you may want to consider Mini DV or Mini DVD—you can just pop in a new disc or tape and not have to download. Also, a Mini DV tape or Mini DVD are solid copies of your footage. When you use Flash or Internal Hard Drive cameras, you store it on your computer's hard drive—which could crash.

•How old is your computer?

Be careful of purchasing a HD (high definition) camera. HD takes up a lot of space and can slow your computer down a lot. Make sure your software—iMovie, Final Cut, Avid or Movie Maker, can handle HD. If you don't have a recent version of Movie Maker, you will have to convert footage off of Mini DVD, Flash and Internal Hard Drive Cameras.

## Choosing Your Camera



## Different Cameras Different Formats

There are a lot of different cameras floating around out there on the internet, but the question is, *which one to buy?* That depends on many things—your computer, how much you want to spend on MiniDV tapes or Mini DVD's and perhaps most importantly: the quality of your video. In general, the quality of image between camera types is below (*Adapted from: [The DV Show](#)*):





## 4-H Filmmaking

There are lots of ups and downs to each camera type, and this is a list of them:



### MiniDV-Tape Format

Mini DV-tape format is the most common format for digital camcorders and records conveniently onto Mini DV tapes, which record DV-format video.

#### Ups of Mini DV Format

Mini DV tapes are cheap, high quality and you'll always have a solid copy of your video when your done. Both Windows and Mac computers can accept Mini DV without having to convert footage.

#### Downs of Mini DV Format

It takes a long time to get the footage onto the computer. If you shot an hour of footage it will take an hour or more to capture into your editing program. Additionally, it takes more time to review the footage in VCR mode. Also, you have to connect the camera to the computer, instead of just popping in a disk or flash drive.



### Mini DVD Format

Mini DVD camcorders record MPEG-2 video to a Mini DVD for playing in home DVD players. These DVDs come in many different versions: -R/-RW/+RW/-RAM/-R dual layer and -R/-RW double-sided. You can by reusable (RW) disks, but usually you should hang on to your footage just in case.

#### Ups of Mini DVD Format:

Mini DVDs are cheap and you have a solid copy of your footage to hold onto. It's quick and easy to get the footage onto the computer and you don't have to hook up a camera to do it: just pop it in your DVD tray. You can even play the DVD on most television DVD players! The video quality ain't too shabby either.

#### Downs of Mini DVD Format:

Sometimes your editing software can't handle Mini DVD's footage format (MPEG2) and you have to convert it to something else. The quality is not as good as Mini DV footage.



## 4-H Filmmaking



### Hard Drive Format

Harddrive camcorders record high-quality MPEG-2 video to a built-in hard drive. Some hard drives are pretty big now so you can record hours of footage without having to pop in new Mini DVD's or Mini DV tapes.

#### **Ups of Harddrive Camcorders**

It's easy to review your footage on your camera and easy to transfer it to your computer's hard drive or editing program. Video quality is as good as Mini DVD footage.

#### **Downs of Harddrive Camcorders**

The quality of footage is not as good as Mini DV. Like Mini DVD, you may have to convert your footage to something else for certain editing programs. There is no solid copy of your footage for backup! Make sure you make a copy of the footage somewhere else besides the computer on which you are editing!



### Flash Memory Format

Flash memory camcorders record MPEG-4 video to built-in flash memory or a flash memory card.

#### **Ups of Flash Memory Camcorders:**

It's easy to review and import your footage to your computer. The cameras are so small you can take them just about anywhere.

#### **Downs of Flash Memory Camcorders:**

The video quality is pretty low. Also, you don't have a solid copy of your footage so you have to make sure you back it up. You may have to convert the footage depending on your editing program.

**Suggestion:** If you are likely to use your camera with a variety of computers, we recommend a compromise- the Mini DVD camcorder or a HD with a USB port for transferring footage. Almost all PC's have a slide out tray and can read the DVD - so you do not need any other hardware for your computer. Most computers have a USB port but not all. We recommend a freeware program called Any Video Converter for converting MPEG2 footage to avi footage if your editing software does not have this capacity.