

# Video for Everyone – Equipment, Tools, Software

## Cameras

Don't get wrapped up in getting the fanciest camera you can afford. Better to buy two less expensive cameras and invest an equal amount in audio equipment. There are three types of cameras you can use:

- **Smartphones** -- Unsubsidized price range = \$480-600. New generation phones take surprisingly good video. With an adaptor, you can plug in an external microphone. There are also now tripods and even telephoto lenses made just for smartphones. One caveat: Video takes up a lot of room. Without offloading your videos often, you will run out of space quickly unless you have a phone with a good deal of memory (see the bottom of page 2). There is also video software you can download to your phone to allow you to shoot in higher resolution on your phone. For rankings of phone cameras: <http://www.consumerreports.org/smartphones/best-smartphone-cameras/>
- **Digital SLR (Single-lens reflex) cameras** – Price range = \$270-\$5,000 (or even more). Though designed primarily for still photography, pretty much all DSLRs can shoot excellent video as well. A major drawback with DSLRs is that they can only shoot 30 minutes of video, even if you have lots of storage on your memory card. This restricted standard has been engineered into the cameras so they do not compete directly with camcorders. DSLRs also lack some other features of camcorders, such as ports for external mics and headphones, and the ability to run on AC power without an adaptor. For a guide to DSLRs for Video, see: <http://www.wirerealm.com/guides/top-10-best-dslr-video-cameras>
- **Camcorders** – Price range = \$270-\$3,500+. These are made for just one thing – shooting video. There are a wide range of cameras and a wide range of prices. Camcorders will record several hours of video before you need to offload the files, and they have inputs for external mics. There are also special action camcorders, like GoPros, that can be attached to your body and will even work underwater. For a guide to camcorders, see: <http://bestreviews.com/best-camcorders>

## Microphones

Audio is very important and often overlooked! Plan to spend an equal amount on audio capture as on video capture. If you are using a recording device that only accepts a 3.5mm “headphone” plug, you are likely to want a higher-quality audio recording setup (e.g. using XLR connectors).

- We picked up a perfectly adequate lavalier mic for \$20 on Amazon.
- Another really inexpensive tip we have heard about is to take a pair of standard smart phone ear buds and cut off the two ear pieces

For a guide to microphones to use with DSLR Video Cameras, see:

<http://www.micreviews.com/guides/top-10-best-dslr-camera-microphones>

For a guide to lavalier Mics, see: <http://www.micreviews.com/guides/top-10-best-lavalier-microphones>

## Video Capture Software

These tools are ubiquitous, cheap and easy to use. They capture your computer actions (mouse movement, typing, and screen transitions). They also capture still images, and most will capture audio from the computer including your voice using a microphone plugged into your mic input jack.

For a guide to video capture software, see: <http://www.toptenreviews.com/software/multimedia/best-video-capture-software/>

## Video Editing Software

There are many free and affordable software tools that can be used to perform non-linear video editing. Most of these tools use a timeline interface that allows you to import video and audio clips, and then crop and trim clips, and add transitions and visual effects. Some packages are open source freeware.

We recommend [OpenShot Video Editor](#) as a simple, free option for all operating systems.

Here is a list of the most popular editing packages: <https://beebom.com/best-video-editing-software/>

## Computer Requirements for Video Editing

Invest in a good processor, RAM, and GPU. Video editing will utilize your PC's resources to the max! If your PC is a little dated, editing will just take longer. Here are some recommended specs for your editing computer:

- **Processor:** Intel i7, 4+ cores -or- AMD FX line, 8 cores.
- **Ram:** DDR3 @ 1333mhz or higher; 16GB minimum, 32GB recommended.
- **Graphics card:** Newer GTX-series nVidia card or very new Radeon card
- **Storage:**
  - Scale storage your production needs
  - External drives are best
  - External drives should be faster than USB 2.0
  - Data transfer rate of greater than 80MB/s (>650mbps) for smooth editing
- **Monitors:** Multiple monitors are more convenient for video editing

## How much video can I shoot on my phone?

This depends on how much memory is free on your phone, the video size, resolution and frames per second (fps) at which your phone shoots. Some rules of thumb for newer smartphones:

- 720p HD at 30fps: 60MB per minute
- 1080p HD at 30fps (default resolution): 130MB per minute
- 1080p HD at 60fps (smoother video): 200MB per minute
- 4k (highest resolution; newer phones only): 375MB per minute

Find the video settings on your phone to select the video quality and resolution you want to use.