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Discovering America's Rangelands  
**iDevice Mobile Video  
Production Guide**  
A University of Wyoming Extension Manual



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Extension



# Introduction

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I begin many of my video production workshops with the simple question, “Why make videos?”



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Your answer will dictate whether or not you read this book. Answers tend to range, depending on individuals and experience, but ultimately we watch and make videos to tell stories. It may be our own stories, those of friends and family, or the world around us, but ultimately we tell stories to help make sense of the world. Most of us go home in the evening and share what our day was like with family or friends. This most basic form of storytelling is something with which we are familiar. We all understand story because it is so pervasive in our culture.

We use video to tell our story because video is multi-sensory, image heavy, and allows us strong control of our story through editing.

Think for a moment about your favorite TV show or a commercial that stuck with you. Even a short commercial can have a major impact with a well-told story:

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### MOVIE 1.1 Google Commercial



A good example of compact storytelling.

<https://youtu.be/Lmf0F7JxxXE>



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Whether we're sharing our day with family, trying to teach the world a new skill, or reveal a universal truth, story pervades our lives, and video is a powerful platform to share our stories. Video production on mobile devices has exploded and made high-quality video production available to anyone with a story to tell. Access to such powerful tools gives everyone a much louder voice and a great platform for telling their stories without relying on media professionals.

This manual is designed to assist extension educators and specialists and other natural resource professionals in telling local knowledge stories about rangeland management. There is a lot of local knowledge on the ground in rangelands across the West every day. This knowledge resides with ranchers, resource professionals, and community members whose lives have been built around wise resource management. This guide will help share those stories with the world using a relatively easy and impactful format built around producing videos on an iPad or iPhone.

Many of the techniques and processes outlined in this manual are useful no matter what tools you use for video production. The manual focuses on iDevices for a few different reasons. An iPad (or iPhone) is currently the best available and easiest to use all-in-one tool for video production if you are starting with no experience and no equipment. The other reason this manual focuses on iDevice production is to provide a highly detailed example of video production best practices. Hopefully, you will still find the production process instructions useful if you already have equipment and a process with which you are comfortable. Unfortunately we can't explain the details of buttons, shortcuts, and menus on every video production device and editing software in the world. You should be able to adapt many of the practices in the manual to the particulars of your equipment and software.

Many of these instructions will become second nature once you've had the chance to try making a few videos.



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The following chapters go into great detail about the video production process, but here's the seven filmmaking tips to remember:

**Tell a story**

**Think before you film**

**Use a tripod**

**Use a microphone**

**Light subject well**

**Shot variety**

**Think screen presence**

A few notes before we get started. This manual focuses exclusively on producing videos on iPads and iPhones. While some of the information will be applicable for video production in general or on other mobile devices, iDevices offer the most options in terms of app availability and, in many extension services, iDevices are the standard recommendation for employees purchasing mobile equipment. Trade or brand names used in this publication are used only for the purpose of educational information. The information given herein is supplied with the understanding no discrimination is intended, and no endorsement of products by the University of Wyoming Extension or the author is implied. Nor does this guide mean to imply approval of products to the exclusion of others, which may also be suitable.





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# Storytelling

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There are many different ways to tell a story. A story can be humorous or sad, truth or fantasy, short or long.





# Important Considerations

There are two critical considerations before you start the production process no matter what kind of story:

### 1. Audience

### 2. Purpose

You must consider these two components before you pick up a pen, schedule a shoot, or hit the record button.

#### **Audience**

Audience is key to helping structure your story. Because storytelling is an integral part of all human societies, storytelling is culturally specific. Different cultures tell stories in their own ways. Clear communication with your target audience is one of the overarching goals of video production, so defining who you are trying to reach is critical. You want your film to reflect the culture of your audience. You might make a film about local foods for agricultural producers very differently than you might approach the same film with urban consumers. Similarly, if your

target audience is youth, you'll probably take a different approach to storytelling than you might with local government officials.

The following link is a great resource for more ideas, examples, and resources on culturally specific storytelling:

<https://www.digitalgreen.org/>

Be as specific as possible when defining your audience even if this might evolve later because the target audience will dictate the people (characters/talent) in your movie, the language used, the output platform, and the length. Because the goal with your video is to clearly communicate and connect with your audience, you'll want people in your film to have some connection with your audience either as a trusted member of that audience or an expert respected by that community. For example, a film with 4-H youth members as the target audience should feature youth onscreen. Similarly, the language, tone, and talent (person on screen) in your film for a technical audience of scientists will be very different than a video used to connect with seasonal farm laborers, even if you want to cover the same topics with both audiences.



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## Purpose

The purpose of your film is also important to consider at the beginning of the production process. Your film will look very different if trying to entertain your audience than if you're trying to instruct them in some new technique or method.

Defining your purpose and audience will help drive your video production process and ensure maximum impact with your final product.

Since we'll be trying to collect local knowledge from farmers, ranchers, and land managers, we already know who we'll be interviewing. But we'll still want to use the particular people we select to interview and the questions we ask to create a film that connects with our audience and conveys useful information.

Here's an example of one of our local knowledge videos:

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### MOVIE 2.1 Local Knowledge Video



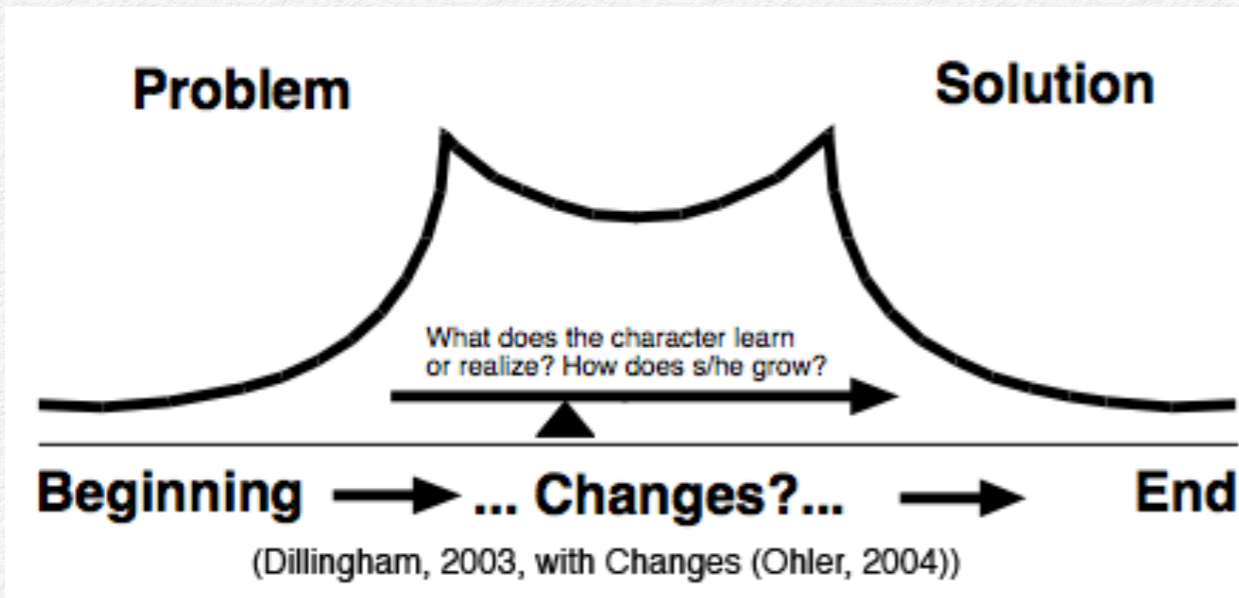
Keeping your audience and purpose in mind will lead to a stronger product.

[https://www.youtube.com/watch?v=0i\\_RCVMU0gl](https://www.youtube.com/watch?v=0i_RCVMU0gl)



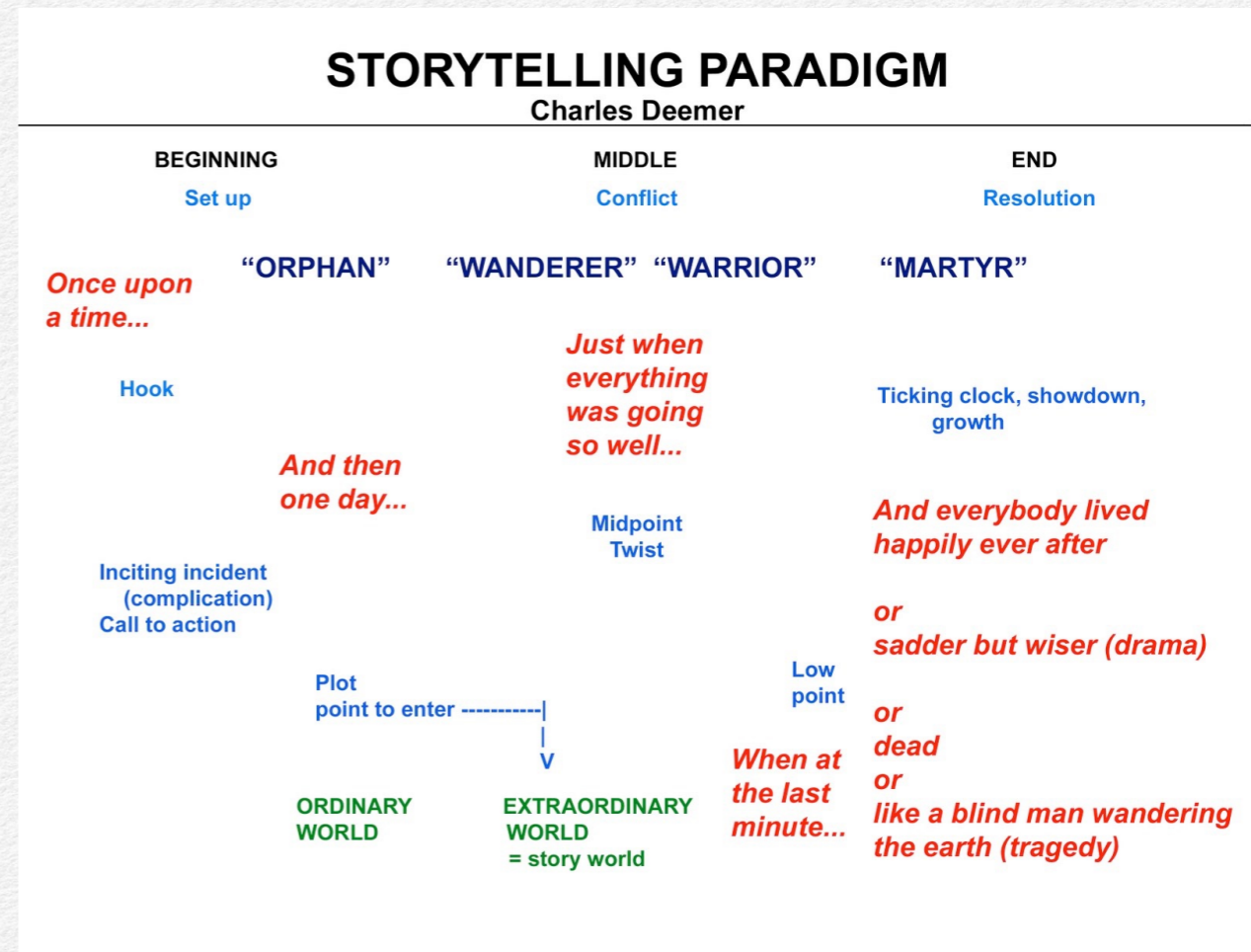
# Types of Stories

Stories are culturally constructed, so storytelling history and structure vary by culture. A traditional western storytelling structure is beginning, middle, and end. These are the components:



<http://www.jasonohler.com/storytelling/storymaking.cfm>

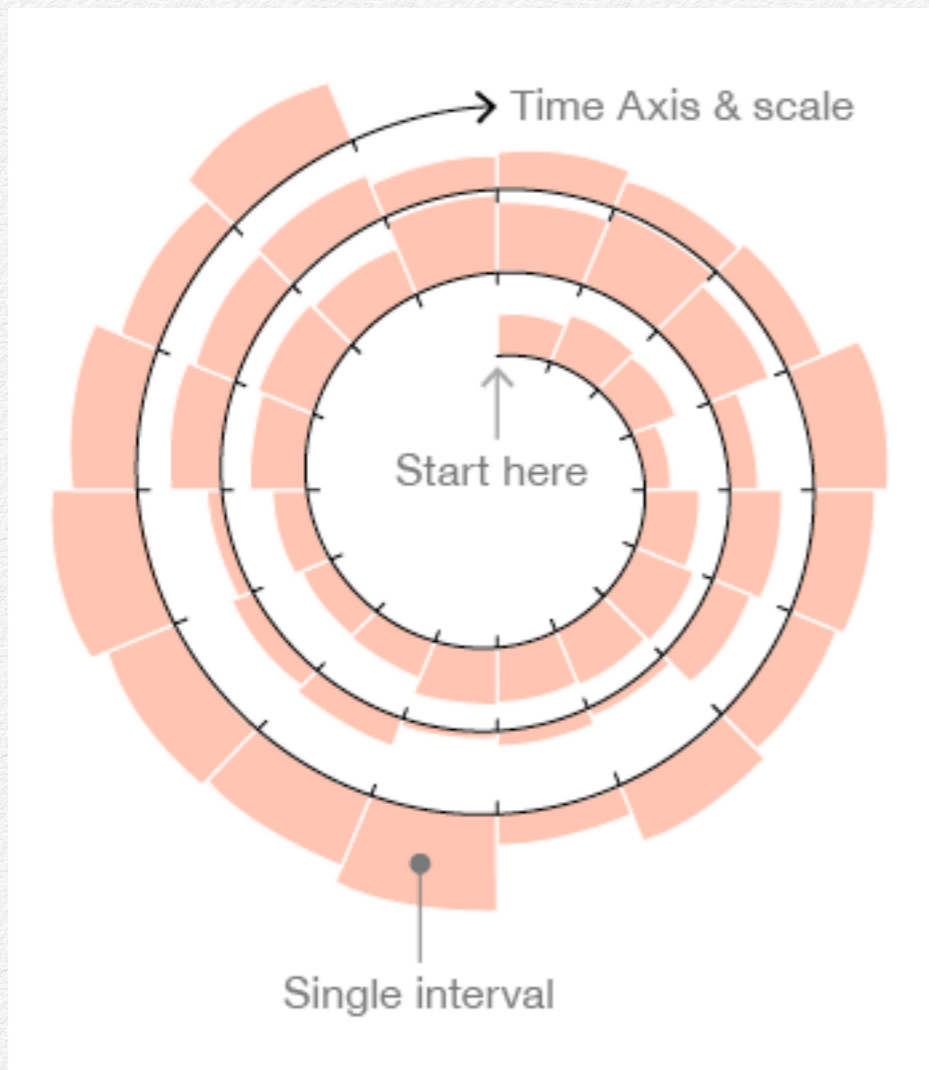
Here's another way to think about story structure:



<http://cdeemer2007.blogspot.com/2010/03/shakespeare-storyteller.html>



Storytelling in non-Western and native cultures may take a very different structure:



<https://englishwithmrsperce.com/tag/short-stories/>

Since we've already settled on our audience and purpose, those considerations should help us when deciding how we might best tell our story.

We also want to think about the style of our video. In many cases, since our focus is capturing local knowledge and we're not looking to challenge our audience with new storytelling forms, we'll probably stick with a fairly linear informational type of story. We might also consider some other story type if we have a particular reason. Other types of videos we might make could include music videos, something designed purely for entertainment purposes, or something instructional. Each form of video storytelling will come with specific expectations from our target audience about what they'll see on screen and how we'll move through the story:

#### Music video:

#### MOVIE 2.2 3 Minute High Tunnel



An example of music video in Extension.

<https://youtu.be/QWZjQ9hQFck>



## Instructional video:

### MOVIE 2.3 How to Make Potting Mix



Example of instructional/how-to video.

<https://www.youtube.com/watch?v=g52hAggxkU8>

## Informational video:

### MOVIE 2.4 Local Knowledge



An example of standard informational story.

<https://www.youtube.com/watch?v=plqtayad3Y8>

There are other helpful ways to think about how we'll tell our story and the type of story we'll be telling:

### Journalist Approach

Focus on: Who, What, Where, When, and Why

### Essay Approach

Define a problem we're intending to solve (think of this as a thesis statement), follow our characters on a search for answers (methods), and arrive at a solution to our problem that includes supporting evidence (results and conclusion).

### Advertising Approach

Begin with a situation or product, describe why our audience might care and how our product can help solve a problem, and wrap up our video with a call to action.



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The point is there is no wrong way to tell a story or make a video as long as your overall objective is clear communication of purpose with a specific target audience. I like to take a hybrid approach to video storytelling:

- 1. Start with a hook. Why should the audience care?**
- 2. Thesis. What's the main point we want the audience to understand?**
- 3. What's the 3-5 main points or steps to reach our goal/solve a problem/prove our thesis?**
- 4. Show us the solution/results.**
- 5. Give a call to the action. What should the audience do with this information?**

Thinking about story before you begin will result in a stronger video at the end of the production process.



# Equipment

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**Your iDevice can be a powerful tool for video production, but there are a few pieces of equipment that will really maximize its usefulness as a camera and editing platform.**



# Hardware

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1. **Stabilization**
2. **Audio**
3. **Other Hardware**

## Stabilization

Everyone knows iPhones and iPads include a built-in camera that works well for taking photos in many circumstances. You'll have a hard time recording high quality video without improved stabilization and audio capturing. With some basic upgrades you can shoot broadcast and film quality video right from your phone or tablet.

Stabilization is the single most critical component of your iDevice video production kit.

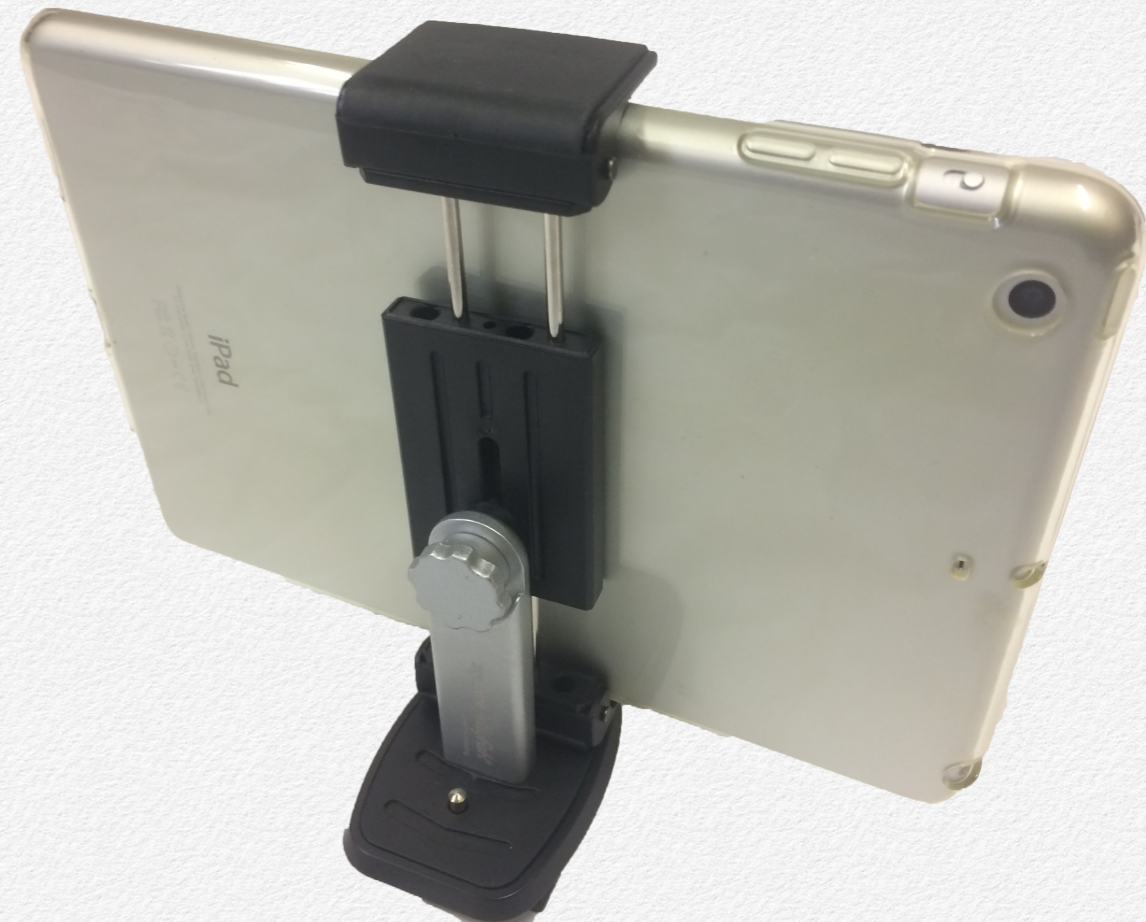
A tripod is the first and most basic hardware component of your video production kit. Whether shooting video on your iDevice, a DSLR, or a professional video camera, the most basic improvement you can make is to use a tripod. Steady shots without all the shaky camera of handholding are the first and most obvious mark of a professional product. When it comes to tripods, find something to match your price range and check reviews. Even the cheapest tripod will work perfectly to record a stationary interview. Camera movement is where more expensive tripods set themselves apart. If you plan to do a lot of action shooting or moving the camera (panning or tilting) during your shots, spending slightly more on a tripod is worthwhile.

Next we'll need a way attach our iDevice to our tripod. There are a range of options, so again find a combination of price and



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functionality that work for you. At the high end, there are an assortment of cases built to attach phones and tablets to tripods. Many will also offer other types of attachments for accessories such as microphones, lights, added lenses, and filters. A cheaper option is to find a clip-type bracket to connect with a tripod. These brackets come in a number of styles. Some fit over your device with a case still on, most are removed when you don't need to use the device as a camera.





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There are a few other types of stabilization that can help with iVideo production. A basic handle can work wonders for steadying a shot. Just the difference of gripping your device with a handle, instead of the sides, can help improve stability. GoPro adapter kits allow attaching your iPhone to the full range of GoPro straps and mounts. Dollys and sliders can be nice accessories to create following and tracking shots with plenty of smooth movement. Handheld gyroscopic stabilizers are a recent stabilization improvement. These can be incredibly useful and versatile. A gyro stabilizer is the only type of stabilization that comes close to substituting for a tripod. The gyro will also allow you to capture a wide range of shots in varying conditions.

## Audio

Audio quality is a close second in importance behind stabilization. While the built-in microphones on your device are suitable for general sound gathering, a microphone is particularly critical for interviews and for a considerable jump in sound quality.

The lapel mic is the most basic type of microphone for interview and instructional work. Lapel mics are available in wireless and wired versions. Wireless are considerably more expensive, and audio interference is a serious issue, particularly in low-end models. A wired lapel mic like the Audio Technica 3354 or Movo PM10 is an excellent option to start with. Although the distance between the camera and the talent is limited by the length of the mic cable, a wired lapel mic minimizes the risk of interference, is easier to use, and works well in most situations.





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There are many other options for microphone styles and brands, most of which you won't need to consider unless you have a specific production necessity. A shotgun mic is the only other microphone that can be useful for collecting generic background and environmental sounds (not interviews). A shotgun is good for picking up a relatively narrow (and sometimes distant) sound source. A good place to start is the Audio Technica ATR 6550, a basic wired shotgun that will interface easily with your iDevice.



You'll need an interface and/or adapter in order to obtain adequate audio levels from some microphones (including the Audio Technicas). Since phones and tablets are not made primarily for video production, they are built more for getting audio out than in. An audio interface/amp helps improve sound quality and provide improved volume control for the audio being collected by the mic. Interfaces and amps may connect to your device either through the headphone jack or through the lightning input. Either approach works, although devices that connect through the lightning port provide more options for control and better quality overall. Depending on the components you choose, you may also need an adapter if your device doesn't include a lightning plug built in. Although some of the components are slightly dated, I prefer an audio setup that uses the Tascam iXJ2 with a 30-pin to lightning adapter. The Tascam iXJ2 allows you to attach 2 separate microphones to your iDevice, monitor the audio input with a set of headphones, and adjust the volume across a wide range of levels. This particular interface also includes a space to plug-in a USB power supply to keep the device charging while you shoot. You will need an adapter since the Tascam only offers a 30-pin plug.



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Be sure to test your microphone before you buy any additional adapters since some mics will record adequate audio levels with no additional hardware (Movo PM10).

Headphones are the last audio component; any pair from earbuds to studio types will work. Headphones give you a chance to monitor your recording or, depending on the app, at least listen clearly during playback of your clips.

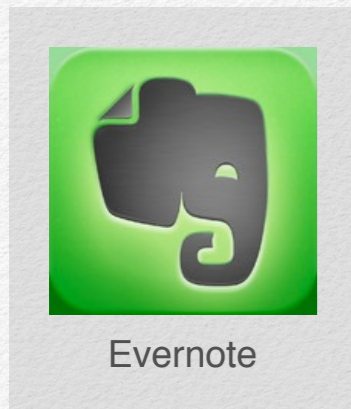
## **Other Hardware**

There are many other accessories and devices available to improve your filmmaking on your iDevice. Many of these products are marketed toward specific user groups such as action sports, scuba divers, etc. Be sure to watch for other devices that might be helpful, but you can produce quality videos using only the items mentioned above.

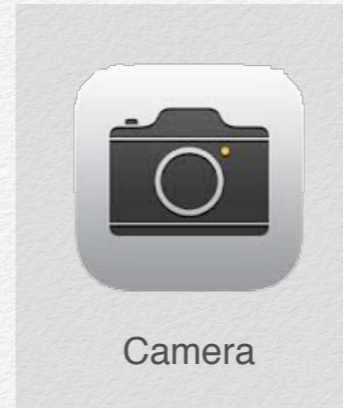


# Applications

There are hundreds of apps available for video production on iDevices, and new apps become available daily. Just as you should develop a set of hardware to meet your particular needs, you should find a specific set of apps that meet your needs. The apps that follow are a mix of free and paid. Some will come pre-installed on your iDevice and others will need to be downloaded from the App Store.



[Evernote](#) and [Penultimate](#) are made by the same app developers, and they offer cloud-based notes, tables, and storyboarding tools and can be accessed on other devices including your desktop computer so you can continue planning beyond your iDevice.



Camera is the default photo and video app that comes with your device. The camera has improved through the development of successive iOS updates. This app is your primary production tool in the field and can be used to record video in most circumstances.



[FiLMiC Pro](#) gives you plenty of options if looking for manual control for shooting videos. FiLMiC Pro will have a slightly steeper learning curve than Camera, but it functions much more like the manual controls in DSLRs and other cameras. The controls in FiLMiC Pro give you the chance to adjust everything from bit rates and resolution to white balance and audio formats. Focus, exposure, and white balance are the critical controls that you'll want to become familiar with.





Dropbox

[Dropbox](#) is an easy-to-use cloud-based storage app. Dropbox is a great way to sync all of your content if you plan to move photo and video files between devices (iDevice, computers, etc.).



PhotoSync

If you plan to shoot videos on your phone and edit on your iPad, [PhotoSync](#) allows you to quickly and easily sync footage between the devices in the field without an internet connection. PhotoSync relies on a Bluetooth connection rather than wifi, which is required for Dropbox to sync.



iMovie

[iMovie](#) is the basic editing app that will allow you to quickly and easily assemble your videos. Newer iDevices come with iMovie as one of the pre-installed apps. On older devices, it will cost \$5 in the App Store. For the price and the fact we're on a mobile device, iMovie is a phenomenal editing tool. Using iMovie means you won't need to

download clips and edit on a computer. iMovie also allows you to create simple, professional quality movie trailers in an easy-to-use template interface.



Pinnacle Pro

[Pinnacle Pro](#) is a good option if you're willing to spend a little more (\$13), or you need an editing platform with more features (particularly text editing options). The learning curve will be slightly higher than iMovie.



# Pre-Production & Planning

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**Just because you can pull a mobile device out of your pocket and hit “record” is no excuse for not taking the time to plan and execute a quality video.**

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# Storyboarding & Story Planning

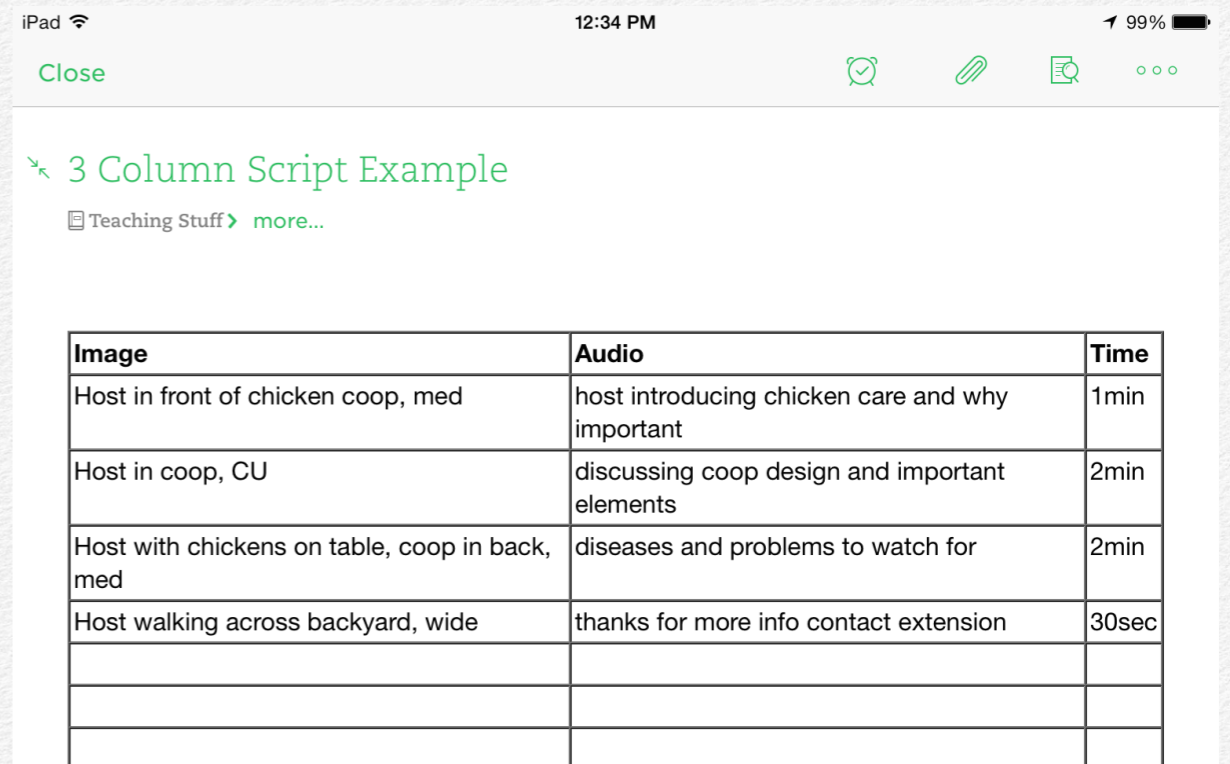
Mobile devices have changed our lives in countless ways both large and small. The ability to shoot and edit high definition broadcast and theatrical quality video without ever needing a computer and using only a few dollars worth of equipment is nothing short of amazing. What would have taken tens of thousands of dollars worth of equipment just 10 years ago is now accessible to everyone. This rapid expansion of video production access to everyone makes a focus on quality more critical in such a media-rich landscape.

Just because you can pull a mobile device out of your pocket and hit “record” is no excuse for not taking the time to plan and execute a quality video. Spending time planning your video before you start shooting will greatly improve your final product. We need to start thinking about how we can tell an effective story (see previous sections) that speaks to our audience and purpose (discussed earlier).

There are two different ways to start thinking about the details of our film, and either approach works equally well and comes down to personal preference. Outlining or storyboarding are your two options to build your film’s framework.

## Outline

The outline approach to pre-production is very much like outlining a paper. Since we’ve already considered story and purpose, we can begin to construct a spreadsheet to outline our film. Using an outline to plan your production is a useful approach if you think more in words than images. Here’s a sample outline to get you started:



The screenshot shows an iPad interface with a spreadsheet titled "3 Column Script Example". The spreadsheet has three columns: "Image", "Audio", and "Time". The data is as follows:

Image	Audio	Time
Host in front of chicken coop, med	host introducing chicken care and why important	1min
Host in coop, CU	discussing coop design and important elements	2min
Host with chickens on table, coop in back, med	diseases and problems to watch for	2min
Host walking across backyard, wide	thanks for more info contact extension	30sec



Notice the outline includes the two main modes of communication used in video—image and sound—clearly separated. The image and the audio of your film work together in the final product, but it is useful to break them apart for planning purposes and focus on what each can do separately to strengthen your video. Time is the other important element; we need to be sure we're telling our story and conveying information as succinctly and efficiently as possible. The outline will help us break the film down into major sections (if you're taking a more narrative film approach you'll want to be thinking beginning, middle, and end here). We'll think in terms of scenes, sequences, and shots within each section. Scenes will be the largest chunks that take place in a single place and time. You could think of these as paragraphs of a paper. Sequences are analogous to sentences, adding detail around a single idea. Shots are the words that form our basic building blocks of story.

## Storyboard

A storyboard is a great way to plan your production if you are visually inclined or like to draw. A storyboard relies on the same levels of detail, from scenes to shots, as an outline, but rather than rely on a 3 column spreadsheet, the storyboard requires you to sketch your ideas so you can begin to visualize sequences and shots. Here's an example:



The storyboard tends to emphasize the visual track of your film, but it's still important to make notes below each frame about the audio track and the duration of each shot, scene, and sequence.

You can make an outline or storyboard as detailed as you like, but if you can get to the level of detail where you are focused on individual shots, you will have plenty of ideas to use as a guide when you begin shooting. A more detailed outline will also help ensure that you don't forget to record some critical footage in the field. Sample documents are included in the Appendix.



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Whether you outline or storyboard, pre-production documents will be invaluable when you begin shooting your video. If you take time to plan before your shoot, you won't be focused on thinking about your story when you should be focused on other recording elements. Don't be afraid to deviate from your pre-production plan once you start the production phase of your video. The outline and storyboard are meant to act as guides. If you find more interesting characters or want to take a different line of questioning based on what your talent tells you, don't be afraid to follow the story wherever it takes you. Your pre-production guides are what help get you to the point where the real story is developing.



# Logistics

Logistics is the other element of planning you'll want to focus on in pre-production. While some elements of video logistics may seem obvious, if you don't plan and make arrangements in advance, any of these items can cause problems in the production phase of your video.

### Talent

Early in pre-production you should start to identify who you'll need on camera in your video, make contact and start to plan and schedule with the appropriate individuals. Depending on your video, you'll likely be including experts in a particular field, researchers, landowners and land managers, members of your target audience, and/or actors. No matter who you choose to include, your talent will need time to schedule and prepare for your video.

When you reach out to your talent to schedule an interview be sure to share with them how the process will go the day of the

shoot. Try to make them as comfortable as possible before you get there. Here's some things to share ahead of time:

**Clothing:** No solid white, black, or red shirts or narrow stripes. All of these will cause problems for the camera.

**Time:** Let them know you'll need enough time with them to conduct an interview (~1 hour) and spend sometime touring their place to collect b-roll (~2 hours), plus some setup and take down time (~1 hour).

**List of questions:** Some people will want to see the questions ahead of time. While you don't want to blindside your talent, it is also possible for them to over prepare. I find it's best to share the general topics we'll cover in an interview, but not the specific questions. In my experience with questions ahead of time, you run the risk your talent will write out answers and want to just read their notes, which makes for boring interviews.

**On location:** Ask your subject to be thinking about a few locations where they would be comfortable being interviewed. While they may not have visuals in mind, they'll know where they are most comfortable. Ask your talent to hold off on daily chores until you arrive if at all possible. This is a good chance to get b-roll.



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## **Crew**

You are going to need help with shooting, editing, transportation, etc, unless producing your film solo from start to finish. Just like your talent, these people are going to need advanced notice to be involved in your project.

## **Budget**

Your budget may turn out to be a limiting factor depending on the scope of your video, so nailing that down fairly early on is a good idea. If you're going to need to pay your talent, buy a lot of equipment, and travel extensively, you'll want to know that early in your pre-production and adjust the scope of your video to match the budget.

## **Permits**

Location is an important pre-production consideration. Be sure you have access to the appropriate locations to capture relevant visuals to tell an effective story. Landowner permission is a must for private land access, and it's much more likely you'll get access if you ask in advance rather than arriving with a large film crew the day of the shoot. For any sort of public lands or facilities, check with the appropriate agency involved, but in many cases access will require an application in advance that can take weeks to process.

## **Schedule**

A detailed schedule is a necessity to maximize your budget and maximize the efficiency of everyone involved in your video. Your schedule may need to be adjusted once you start production for circumstances such as weather, but having a schedule will help you better plan and organize everyone's time. If you haven't made videos before, you'll want to overestimate the time involved in all your stages since you'll be learning the process as you go. Especially for interviews with landowners and other clientele and collaborators, you want to adequately value the talent's time and anticipate that once they start talking interviews, may go much longer than anticipated.

## **Question list**

You're going to want to have a complete list of questions for each interview before you begin shooting if your video is based on interviews. Of course you'll come up with follow-up questions as you are filming an interview, but you should know your basic questions in advance. You'll want to share the questions in advance if your talent is going to need to do some research to answer your questions adequately.

A sample list of questions for local knowledge interviews is in the Appendix.



# Production

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**If you've spent time pre-producing your video and focused on audience, purpose, storytelling, and you have robust pre-production documents, the production stage should be the easiest and shortest stage of your video.**



# In the Field

Production may also be the most fun portion of video production where you get the chance to go into the field and learn from your talent (the person you interview). This is also the most interactive part of video production.

## In the Field

All of your pre-production should ensure your production stage goes as smoothly as possible. Use your pre-production materials to guide your work in the field. A few tips to consider:

- Be sure to bring all the equipment you'll need, including backup power, batteries, etc.
- Free up space on your device so you have plenty of recording time available
- Be prepared for weather and scheduling variables
- Bring all necessary forms such as video releases and location access forms (see Appendix)

- Use your time as efficiently as possible using your schedule as a reference
- Conferences or stakeholder meetings are a great place to interview multiple people at the same time, but you'll want to make arrangements to visit them at their ranches or farms to get extra footage



# Setup on Location

Once you arrive on location you'll need to setup your equipment and prepare to shoot.

### MOVIE 5.1 Equipment Assembly



<http://www.youtube.com/watch?v=0cTRrU1WWzQ>

Start by setting up your camera:

- Switch your device to airplane mode so text messages and phone calls don't interrupt your video recording.
- Attach your iDevice to your tripod.
- Prepare and assemble any lights and lighting equipment you plan to use.

Setup your scene:

- Decide where your talent will be and adjust the scene accordingly.
- Remove any background distractions and be sure the space looks the way you want it.
- Check your soundscape, no loud or distracting sounds in the background. Turn off air handling appliances and refrigerators if you can.
- Place your talent, or a stand-in, where you want them.
- Make sure the talent is speaking into the frame, not off the short edge (example images on page 31).
- Frame your shot and adjust your lighting as desired.



- 
- Be sure to alternate which side of the frame you place the talent for each subject/interview.
  - Assemble your audio equipment and mic your talent.

At this point you should be ready to shoot.

- Take a beat and make sure the frame looks good (including the edges and background of your shot).



photo courtesy of Randa Jabbour

- Check the talent's audio, make sure the levels are acceptable, and there are no background distractions. You may need to record a quick clip and play it back to check audio levels if you can't listen in real time. Ask the talent what they had for breakfast as way to set/check audio levels

You're ready to roll!



# Shooting Basics

There's a few basic ideas and tips that might help when executing the previous instructions.

## Framing

There is a long history of visual tradition from painting to photography that can guide our ideas about framing. One of the older elements of visual tradition is an idea called rule of thirds:



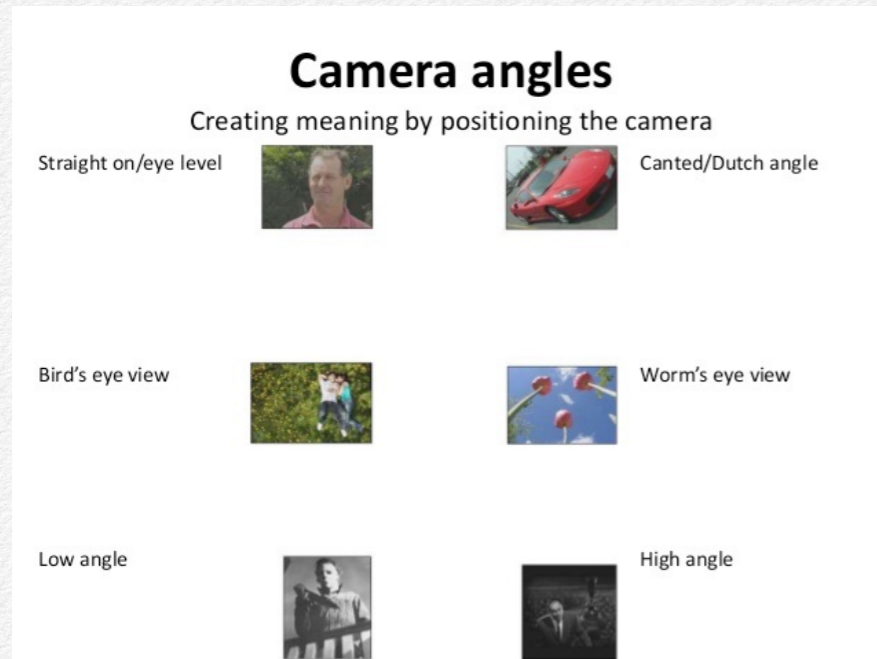
Rule of thirds helps create pleasing compositions and “normal” shots the audience will expect to see in most videos. It allows us to emphasize the important elements of the image while creating a shot that is dynamic and pleasing to the eye.

We also want to focus on variety when we're framing our shots. We want to consider angles and shot types. Shooting a wide variety of shots covering both our talent and b-roll will help keep our video interesting and better tell our story.

When framing our shots we also want people looking (and talking) into the frame, as in the diagram on the left. If our subject is framed with the rule of thirds, but looking off the short edge of the frame, this will create an awkward composition.



## Angles

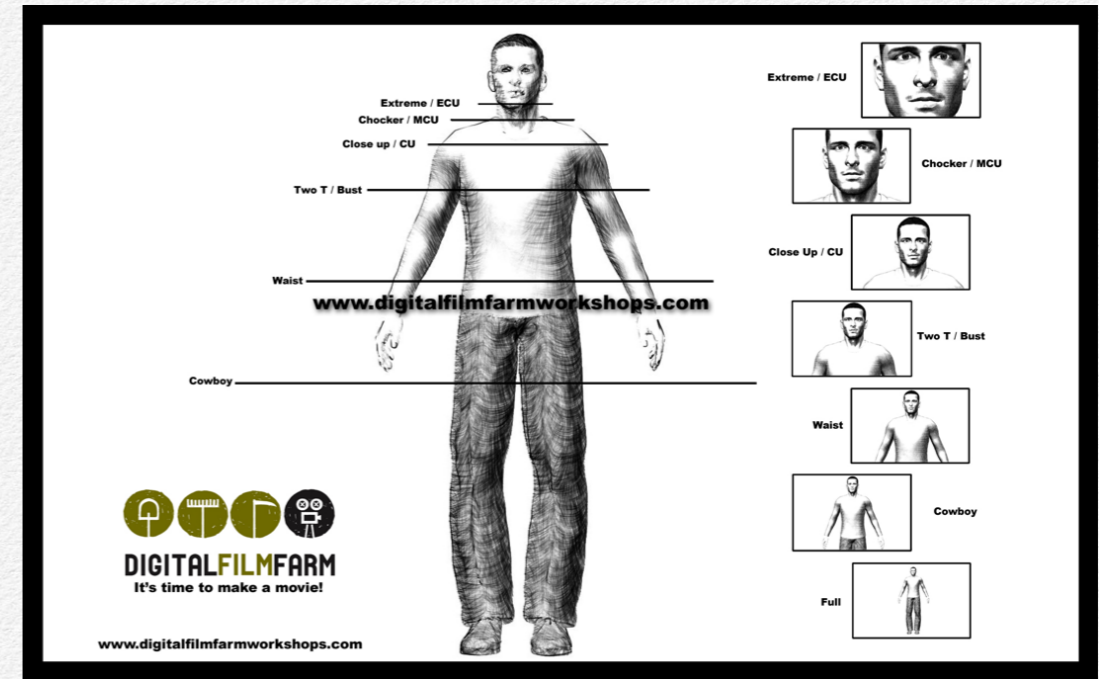


<http://image.slidesharecdn.com/cameraangleshottypesandthecontinuity-131119062529-phpapp02/95/camera-angles-shot-types-and-continuity-3-638.jpg?cb=1384842554>

Varying the angle of our shot can help convey emotion and suggest power relationships between the subject and the camera.

We can also consider over the shoulder (OTS) and point of view (POV) shots when we think about angles. OTS and POV can help our audience see the world from our subject's point of view and draw the audience in.

## Shot types



<http://digitalfilmfarmworkshops.com/frame-actors-for-camera/>

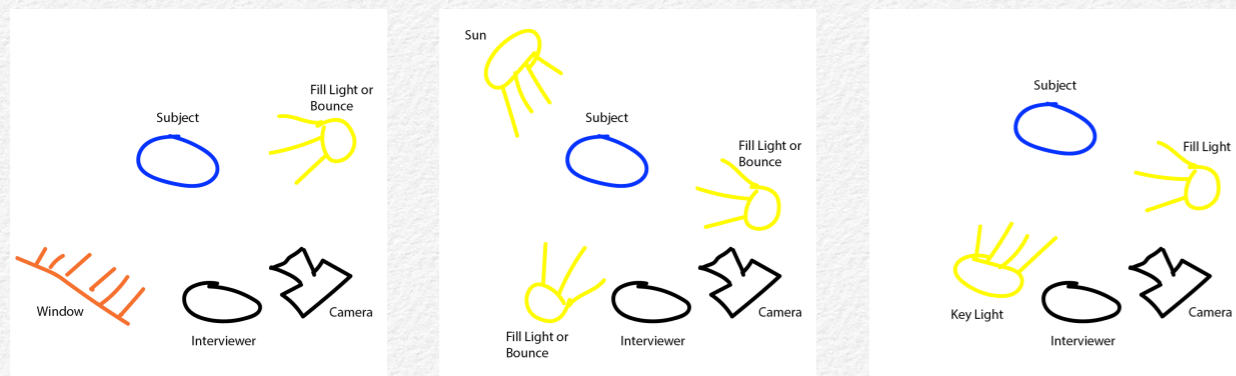
Shot types also help us connect with our subject in different ways and convey certain emotions. Wide shots are important for providing context to a scene and subject. Close-up shots let us see the details of a process or a location and connect with our subject on an emotional level as we see their facial expressions in great detail. Combining a variety of shot types and a variety of angles can really help tell a story in a unique and unexpected way, but ultimately these decisions should be driven by audience and purpose.



# Lighting

All of the concepts discussed in this manual, including lighting, can be explored in much more detail using the links found in the Appendix. In its most basic iteration, lighting should be used as a way to draw focus and emphasis toward the subject or the most important part of the image. We want our audience to easily connect with our subject and see details in their face and expressions. The basic rule of thumb is that the subject should be the most well-lit/ brightest part of the image. We don't want our subject shrouded in a mysterious silhouette, we want to know who they are.

These lighting diagrams can provide basic guidance to setup similar scenes in a few different ways (tap diagram to enlarge):



In general, you want the subject facing toward (or slightly off angle from) the strongest light source (this can be defuse, e.g. light coming through a wide open barn door). You may have to play with the angles to make the subject comfortable and minimize how much they are squinting. But you'll be surprised how much light it takes to emphasize a subject, particularly in bright environments. Having some basic improvised tools can help direct light and potentially use indirect light on your subject. A white sheet, white poster board, or a foil vehicle window shade can be great tools for directing light outdoors. A basic clip-type shop light can help provide a simple option for controlling light indoors.

It is possible to rely on all natural light and shoot amazing video, but the tools mentioned above can make it easier to get the shots you want.



# Sound

As discussed earlier, using a microphone is the best thing you can do to get quality sound for your video. When you're actually recording in the field just be sure you're recording the sounds you want and minimizing or eliminating sounds you don't. When you're setting up, pay attention to the soundscape and change locations or control sound sources to record a clean audio track. In the field, pay attention to wind noise across your microphone. It is usually best to have your subject put their back to the wind and perhaps bury the microphone in a layer or two of clothing (don't worry, the mic should still pick up the subject's voice). Wind problems are not something you can fix later so pay particular attention to the wind when recording.

While setting up, the best way to check the audio is to set the appropriate levels then record a short clip of the subject talking about what they had for breakfast. We don't actually care what they ate, but you can play the clip back to check that recording levels are adequate and there is no wind or background sound on the recording.



# Shooting Process

## Interviews

A few additional tips can help when shooting interviews.

Have the subject address an interviewer positioned just off camera. This makes the video more conversational and less intimidating since the subject won't need to look directly into the lens. Looking slightly off-camera creates an acceptable visual audiences will interpret as standard for this style of filmmaking. The interviewer should be asking the questions while a second person focuses on running the camera/audio and monitoring the recording.



Since we'll only be asking the questions once and we still want some shot variety, it's best to start an interview with a wide shot, then switch to a close-up (this may require moving the camera physically closer if you don't have zoom lenses) about half way through the questions. You should only move the camera to readjust your shot while the interviewer is asking a question. We want our iDevice perfectly still while a subject is speaking.

You'll also want to explain to your subject before you start that, in the final video, the interviewer's voice will be removed so the subject needs to rephrase the question in their answer. Another way to put this is they should respond in complete sentences.

## Instructional and Direct Address Productions

If your video includes an expert on camera explaining a process or instructing the audience (such as a how to film) we'll use a slightly different approach than our interview setup.

For an instructional film we'll actually record the video 2.5 times.





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The first time through we'll want our subject framed in a wide shot. On the second run through we'll record everything in close-up. This may require that the camera person pan or tilt to keep the subject in frame depending on how much the talent moves. On the last half recording we'll want to get cutaways of the process being demonstrated. This might be close-ups of measuring forage production or doing calculations on a whiteboard. Having 2.5 recordings of our video will ensure we have plenty of material to create a smooth edit.

Another difference in a direct address-type video is the subject will be looking directly into the lens rather than at an interviewer. This may require more practice and coaching to make the talent comfortable in front of the camera.

### **Collecting B-Roll**

Be sure to collect relevant b-roll once you're done shooting an interview. Conducting the interview first helps narrow the focus of your b-roll shooting. Collect footage that helps show us the particular ranch or farm you're visiting, provides visuals for points discussed in the interview, and shows our interview subject in his/her environment.

Be sure you continue using a tripod when shooting b-roll. Try to capture action within the frame rather than using pans or tilts to create motion. Following your interview subject through their daily routines or chores can provide lots of great action shots.

Make sure you plan enough time to do some touring around the ranch. If your subject talked a lot about irrigation, be sure to capture b-roll of irrigated fields, sprinklers in action, etc. At this point we're on the lookout for visuals that will tell our story. If equipment was a major discussion point in the interview, show us the equipment.

Try to think in sequences when shooting b-roll. Shoot with variety in mind. Move from wide shots to close-ups, get interesting angles, and show us unique points of view. Especially when you're just starting out, it's a good idea to overshoot on b-roll. You'll use more than you expect.

### **A few more tips**

- Match shots to story
- Record each shot for at least 5 seconds
- Try to get action in the frame without having to move camera
- Use pan and tilt sparingly, NO ZOOM

While this may seem like a lot of information to remember, once you've had the chance to try making a few videos, many of these instructions will become second nature.



# Production Wrap Up

Once you've completed shooting don't forget to:

- Get a signed video release
- Get a signed location release
- Turn the fridge (or other appliances) back on
- Check that you've collected all your gear
- Thank interview subject for their time



# Post-Production

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6

**You're ready to start editing and actually pull your story together once you've finished field production.**



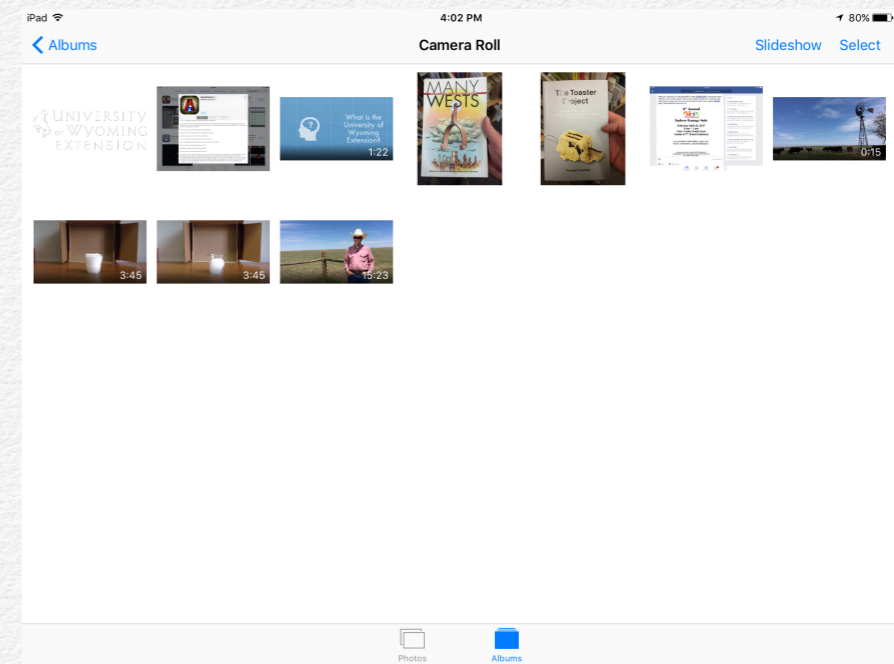
# Managing Footage

You will again want your pre-production materials nearby, particularly your storyboard/outline, to help guide your story building process during editing.

## Managing Footage

Understanding how your iDevice manages footage is important before we start actively editing. To use iMovie for editing we need all of our media—video files, photos, audio files—in one place. Our iDevice automatically recognizes the photos app/camera role (default app comes loaded on your device) as the repository of all photo and video files. If you've used any specialty photo or video apps for recording such as SloPro or FilmicPro you'll need to export/copy the files out of those apps into the photos app. If you plan to use material recorded on other devices, you can use Dropbox or iCloud (among other apps) to sync the material to your iDevice, but you'll still need to copy the files into the camera roll. You can setup folders to help better organize the footage by project once all material is in the

photos app/camera roll. On the audio side, you'll be using iTunes as your storage app. For any music or narration files you'll need to sync them to iTunes before you start your edit. It's also important you don't move or rename files once they are in the photos/camera roll/iTunes. iMovie will develop a link to these files to allow you to edit the videos without altering the actual footage, but in order for the linkage to work, files cannot be moved or renamed.



If you're thinking of editing on a computer, you'll want to download all your footage to a single folder and leave the folder and footage in the same location throughout editing. Editing software will develop the same linkages to the original files as iMovie on your iDevice.



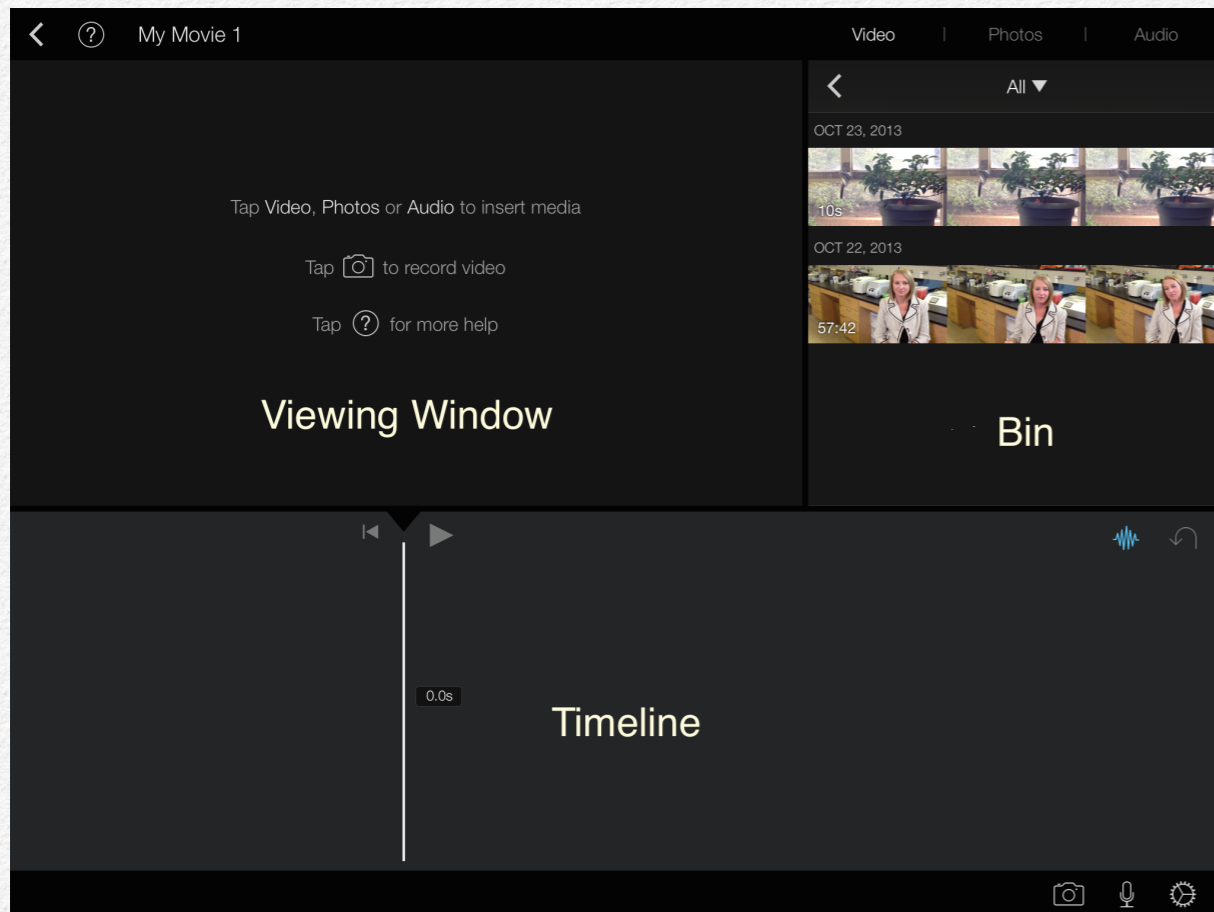
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Working on the same iMovie project on both an iDevice and a Mac computer is not recommended. Pick one or the other and stick with it. Moving the project file between the two devices is unreliable at best.









## Viewing Window

This is where you can watch your video as you edit and where you can preview clips.

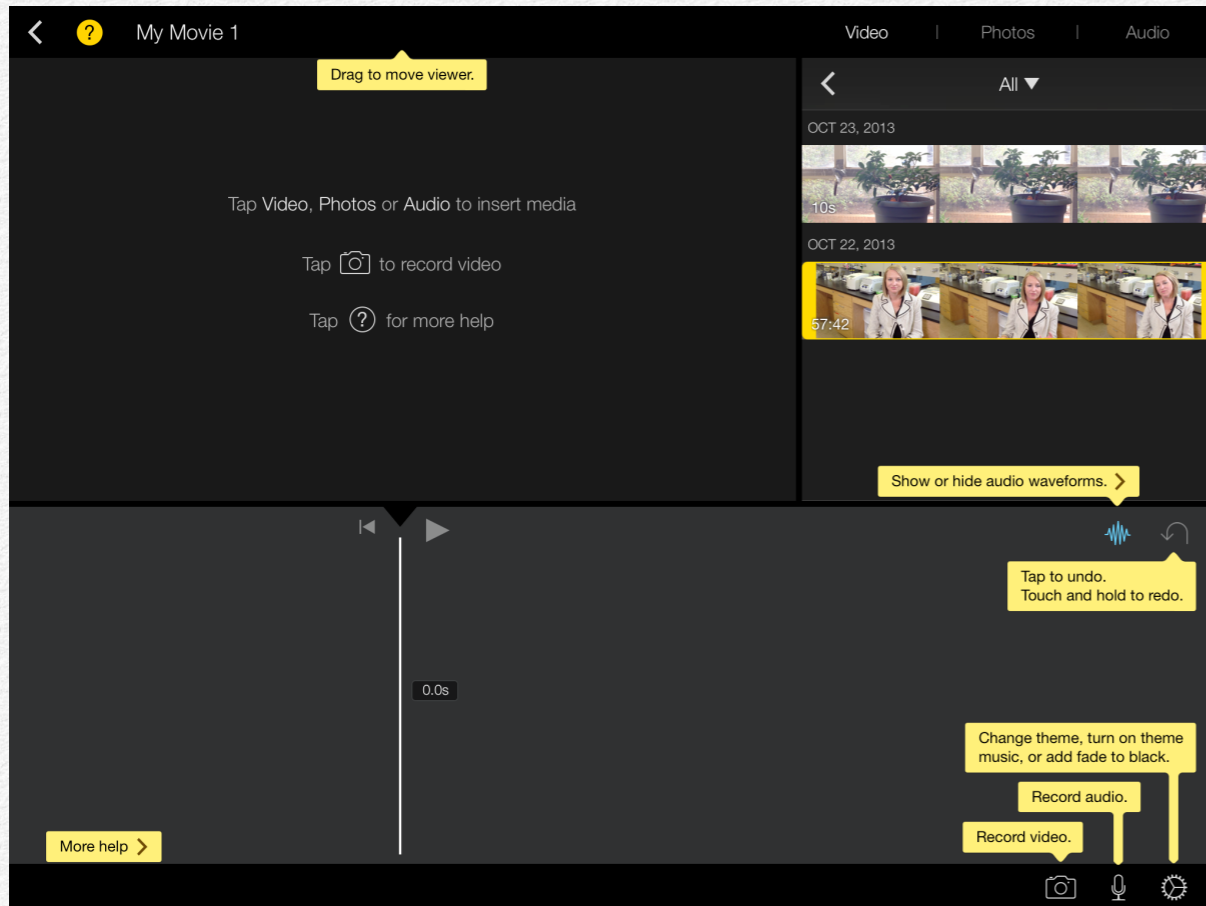
## Bin

This is where all of your media is stored by type. These are the files we previously synced to the photo/iTunes apps to make them accessible to iMovie.

## Timeline

This is where you will do most of your editing and where you'll see the clips that are creating your video. The white bar in the timeline is called the playhead. The clip or clips below the playhead are the edit point, so any editing action taken will affect the material under the playhead.





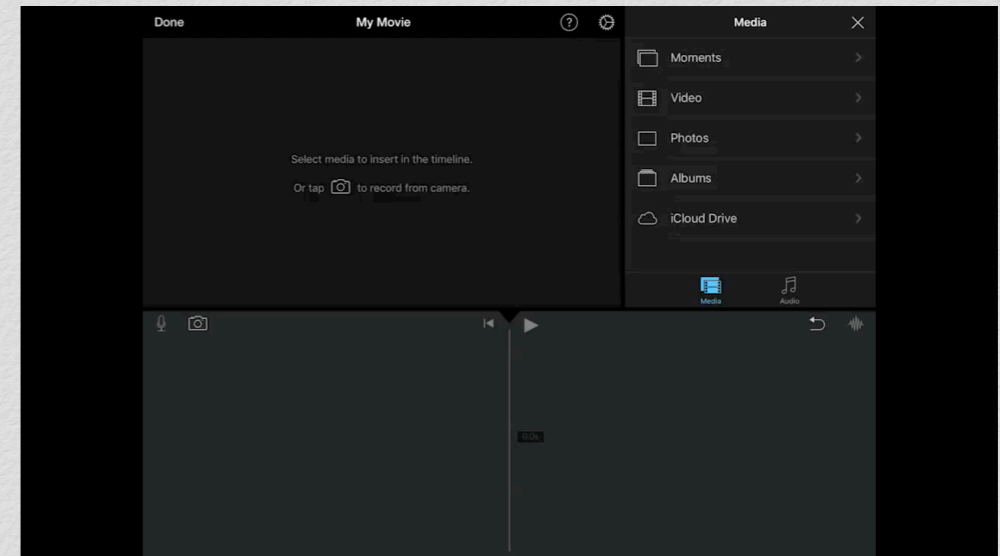
The help menu is another important element of the editing interface. Help can be accessed by tapping on the question mark in the upper left corner. When enabled, help explains all the important elements of the iMovie editing interface and gives you links to more detailed explanations. This is the first place to try if you get lost while editing.



# Rough Cut

The rough cut is the first stage of editing. You should focus on connecting larger chunks of your story together and start to put clips in order. We'll start by listening through the clips and making notes about what we think we want to use to build our video. We will want to remove portions of the clips where questions are being asked (in the case of an interview) and any misstatements or false starts. We are only focused on putting together clips of our talent/interview subject during the first stages of cutting, we will worry about additional footage (b-roll) later.

## MOVIE 6.2 The Rough Cut



<http://youtu.be/6gnteOC5zfQ>

Watching the video as you piece clips together in the timeline is important to ensure the story is flowing and makes sense. By the time you finish editing, you will have watched various parts of your video many times over.

You can begin tightening the story and adding b-roll once you've pieced together the clips you want to tell your story and watched it all the way through. B-roll is the additional shots used to illustrate the topics your talent is talking about. In a how-to video, b-roll will be used to demonstrate the process being described by the video host.



---

Two of our goals in video production is to be as succinct and engaging as possible. A video can always be shorter, so think about which clips are helping tell your story and which are not, cut the clips that are not helping your story. A shorter story clearly told will have the best chance of being watched and having impact.

### Adding B-roll

Once you have the initial stages of your rough cut on the timeline, you'll notice when you watch through there are jump cuts between clips.

B-roll will serve two important functions in our video, one of which is to cover jump cuts. Convention dictates that while we are editing we are trying to cover our tracks. We don't want to distract the audience from our story by leaving our editing process visible. Jump cuts are part of this editing process that we would like to hide, and b-roll helps us do that. We can add b-roll as a second track to cover our jump cuts.

The other purpose b-roll serves is to further advance our story and help visually show what our talent is talking about, so we can also build b-roll sequences to break up the talking heads being interviewed and to add more relevant visuals to the story we are telling. As we build b-roll, we want to start thinking beyond individual shots to thinking in sequences. We want our story to flow smoothly and logically.

---

### MOVIE 6.3 Adding B-Roll



<http://youtu.be/WEnOimWF-Sg>

There is one exception to covering jump cuts. If we are cutting from a wide shot to a close-up of our talent or vice versa, there is enough change in our composition our audience will not be distracted by the cut:

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### MOVIE 6.4 Cutting to Closeup



<http://youtu.be/YKNNCML8PEA>



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This is why we like to have a mix of wide and close-up shots available. If we've shot using the 2.5 shooting method mentioned above for an instructional video, we could theoretically cut the video with no b-roll at all. However, this is not recommended.

### **Adding photos**

Video and still photos can be used as b-roll, but they will have to be added differently. While video can easily be added as a second track, photos will require a more complex series of steps to add them to your sequence.

#### **MOVIE 6.5 Adding Photo B-Roll**



<http://youtu.be/AGmocbGoVXo>



# Fine Cut

We can transition to our fine cut stage once we have the basic structure of our story laid down and some b-roll added to cover our cuts and enhance our story.

During fine cutting we are much more focused on making smaller changes to improve the pacing and flow of our story. We will continue to tighten our edit and cut down our overall length, but we should be focused on small changes that make our video “feel right.”

By this time you will have watched your video a lot, so a fine cut stage is a great time to get a fresh set of eyes looking at your video. Sharing your video with project collaborators or other colleagues and clientele who can offer feedback is critical to ensure your story makes sense. Reviewers who are seeing your video for the first time without the benefit of knowing all the footage you cut out while editing will be invaluable in helping you make further decisions about how to tell your story. Be sure to

take this feedback to heart and don't be afraid to make adjustments if they make sense.

At the fine cut stage, we also want to start laying down any narration we need to help complete our story, and we can start playing with music to enhance our story.

### MOVIE 6.6 Recording Narration



<http://youtu.be/dezNjye3Pv4>

### MOVIE 6.7 Adding Music



<http://youtu.be/uAApWiOQ1f4>



# Final Cut

As you work toward the final cut you will be making minor adjustments to add the final polishing touches to your video. The final cut is the time to finalize your narration and music if need be. Make sure all transitions look the way you want them. You'll want to make sure your audio is balanced to your liking and the volume of your talent, music, and voiceover all blend together well. The final cut is also the time to add any logos, graphics, and credits you'll need.

## MOVIE 6.8 The Final Cut



<http://youtu.be/2HJ0EnBx93c>

Once you've nailed down a final cut you can export the project directly to YouTube or Vimeo or send it to your photos/camera or sync it to Dropbox.



# Wrap Up

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**A few additional  
considerations, thoughts,  
and final suggestions.**



# Final Considerations

### Additional thoughts

- Don't shoot vertical video—

#### MOVIE 7.1 No Vertical Video



<https://www.youtube.com/watch?v=Bt9zSfinwFA>

- Leave all your clips on your iDevice while you are editing.

- Once you've output your final product you can delete the footage, but it's still a good idea to sync it to your computer first in case you need to use the footage for something else later.
- You can leave the iMovie project on your device and if you needed to re-edit later, you could always resync your footage back to the photos/camera roll app if necessary.

### Copyright

Using someone else's footage, photos, or music without proper permission, licensing, and/or providing credit is unethical and potentially illegal. Copyright can get complicated rapidly, but the basic rule of thumb is that you need at least one, if not multiple, licenses to use someone's music in your video. When it comes to music, your best bet is to find someone to record an original track from an original score. If you plan to use clips of famous Hollywood movies, don't! In most cases, even if the use is educational, using clips from your favorite film, no matter how short, is not allowed. Unless you are a copyright expert stay away from trying to walk the line around fair use and educational use.

A better way to find useable footage and photos for your video is to look for creative commons content. Be sure to read about creative commons first and understand the various levels of licensing, but in most cases you can use creative commons content just by providing proper credit.



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## **And finally...**

Have fun. Producing videos should be a fun experience especially after you conquer the initial learning curve associated with using the equipment and software. Practice the process in low-risk situations such as making home movies. Video production is a combination of art and science, and while this manual provides an introduction to the nuts and bolts, developing the artistic side of video production will take time and practice. There are many ways to accomplish the same tasks throughout video production and in many cases you can use trial and error and work backward if need be. Good luck and don't be afraid to experiment.



# Appendix

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**Some useful resources,  
additional links, and  
sample documents.**





# Additional Resources

## Storytelling Resources

<https://storycorps.org/discover/storycorpsu/teacher-resources/>

<https://www.slideshare.net/acarvin/the-mechanics-of-documentary-storytelling>

<http://www.writersstore.com/documentary-storytelling-the-drama-of-real-life>

## Production Resources

<http://internettv.tamu.edu/video-production/>

<http://www3.nfb.ca/enclasse/doclens/btc.php?DLshown=true&language=e>

<http://www.desktop-documentaries.com/making-documentaries.html>

<http://www.mediacollege.com/video/>

<https://www.videomaker.com/how-to>

<https://www.theblackandblue.com/cinematography-apps/>

<https://vimeo.com/blog/post/10-iphone-apps-to-make-your-mobile-videos-shine>

<https://www.youtube.com/watch?v=fgvvFBOXmS4>

<http://streaming.discoveryeducation.com/>

## Other Apps to Try

<https://itunes.apple.com/us/app/hyperlapse-from-instagram/id740146917?mt=8>

<https://itunes.apple.com/us/app/slopro-1000fps-slow-motion-video/id507232505?mt=8>

<https://itunes.apple.com/us/app/8mm-vintage-camera/id406541444?mt=8>

<https://itunes.apple.com/us/app/tooncamera/id392538848?mt=8>



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<https://itunes.apple.com/us/app/lapse-it-time-lapse-stop-motion-camera-free/id539108382?mt=8>

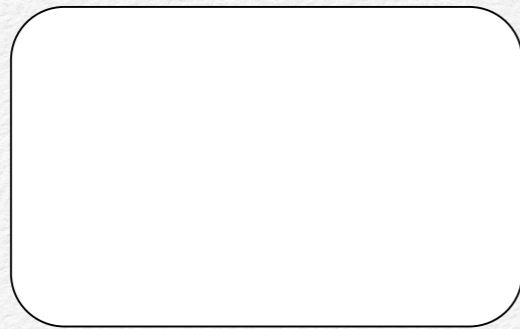
<https://itunes.apple.com/us/app/action-movie-fx/id489321253?mt=8>



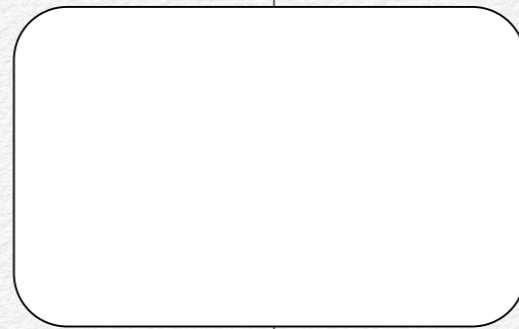
# Sample Documents

**STORYBOARD SHEET**

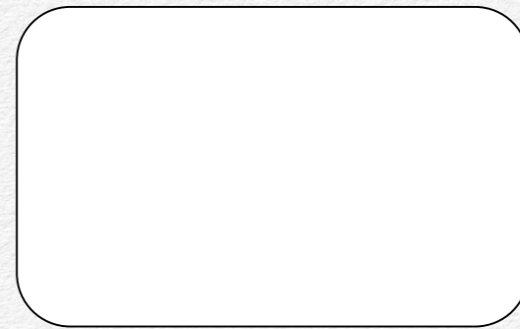
Program: \_\_\_\_\_  
Producer/Director: \_\_\_\_\_



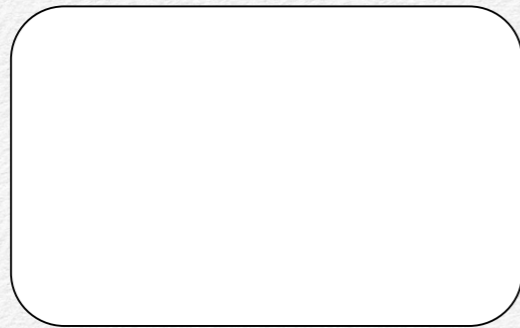
Audio:



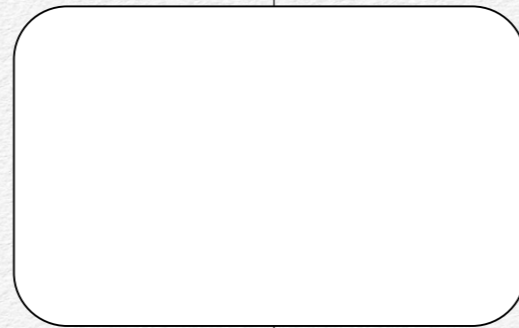
Audio:



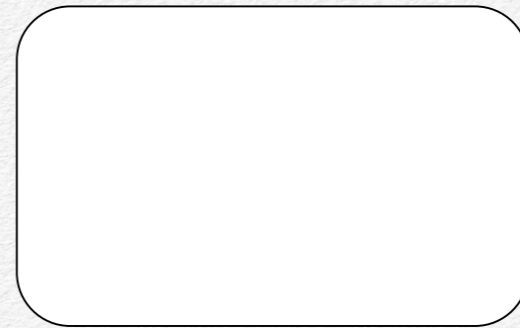
Audio:



Audio:



Audio:



Audio:



## Storyboard/Script

Crew Members: \_\_\_\_\_  
Name of Video Project: \_\_\_\_\_ Project approved by: \_\_\_\_\_  
Date began: \_\_\_\_\_ Check Point Date: \_\_\_\_\_ Check Point Date: \_\_\_\_\_ Date Completed: \_\_\_\_\_

Video	Script/Narration	Director's Notes
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Shot Notes: <hr/>
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Music: <hr/>
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Time Code: <hr/>
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Shot Notes: <hr/>
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Music: <hr/>
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Time Code: <hr/>
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Shot Notes: <hr/>
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Music: <hr/>
	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Time Code: <hr/>



# UNIVERSITY OF WYOMING

## Extension

College of Agriculture  
Communications and Technology  
1000 E. University Avenue • Dept. 3354 • Laramie, WY 82071  
(307) 766-2540 • fax (307) 766-3998 • [www.uwyo.edu/uwe](http://www.uwyo.edu/uwe)

## Release Agreement

I understand the photograph(s) or video or audio recording(s) taken of me by agents, employees or representatives of The University of Wyoming (hereinafter called "the University") shall be used in connection with the University's dissemination of information by its public service and academic programs to the general public.

I hereby irrevocably authorize the University to copy, exhibit, publish or distribute any and all such images and audio of me or wherein I appear, including composite or artistic forms and media, for purposes of publicizing University programs or for any other lawful purpose. In addition, I waive any right to inspect or approve the finished product, including written copy, wherein my likeness appears.

I hereby hold harmless and release and forever discharge the University from all claims, demands and causes of action which I, my heirs, representatives, executors, administrators or any other persons acting on my behalf or on behalf of my estate have or may have by reason of this authorization.

Project Title: (You may pre-enter the title on this line before printing.)

\_\_\_\_\_

\_\_\_\_\_  
(Signature) (Date)

\_\_\_\_\_  
(Printed Name) (Street Address)

\_\_\_\_\_  
(City, State, Zip Code)

If the person signing is under age 18, there should be consent by a parent or guardian, as follows:  
I hereby certify that I am the parent or guardian of \_\_\_\_\_, the minor named above, and do hereby give my consent without reservations to the foregoing on behalf of this person.

\_\_\_\_\_  
(Signature) (Date)

\_\_\_\_\_  
(Printed Name)

*The Extension unit taking the image and/or audio recording should retain the original of the signed form for as long as the photo or recordings may be used. Send a copy of the form to Extension Communication and Technology at the address above.*

## UNIVERSITY OF WYOMING PERMISSION FORM

**PART I: PERMISSION TO ENTER PROPERTY.** I, \_\_\_\_\_, give permission to \_\_\_\_\_, from the University of Wyoming to enter my property, as described below, during the time period specified below, for the purpose outlined below.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Property location: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Time period: \_\_\_\_\_

Purpose: \_\_\_\_\_

Additional comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_



---

# Sample Interview Questions

## Interview Questions for Ranchers:

1. How long has your family been on the land and involved in land management?
2. Can you provide a brief description of your operation?
3. What type of practices or management strategies have you tried on your property? What has worked and what hasn't?
4. What do you feel are/were the greatest rewards and greatest challenges you have experienced as a steward of your land?
5. What would you tell a new BLM or Forest Service range conservationist about your property/operation and the management of it?
6. What type of knowledge would you pass along to the next generation of landowners? Any specific advice you would give them?
7. How do you incorporate technology into your operation? What tools do you or have you used?

## Interview Questions for Agency Representatives:

1. How long have you been working in natural resource management?
2. Can you provide a brief description of your overall experience during your time in the organization?
3. Generally, what are some of the main activities you have done while working for the organization? Specifically, the work you have done with Wyoming landowners?
4. What do you feel are/were the greatest rewards and greatest challenges you have experienced during your service in the organization?
5. What would you tell a new landowner who has come to your organization for help with their operation?
6. What advice would you give someone who is new to your organization regarding your experience in the natural resource management field?
7. How do you incorporate technology (tools you have used?) into the work you do regarding natural resource management?



# Field Protocols

Co-written with Cody Sheehy, University of Arizona,  
CALIS, Cyber Communications & Technologies

## Equipment Checklist

- iPad/iPhone
- iPad download and charging cables
- iDevice tripod adapter
- Tripod
- Microphone
- Spare mic batteries
- Tascam mic control unit with adapter
- Headphones
- Lights or bounces

## Procedure

Travel to site, meet interviewee

From conversation, find out if:

- They have some old photos of their ranch management or interesting ranching events.
- If they plan on doing any chores or other interesting things around their ranch that day that might make a good opportunity to capture some b-roll of them.
- Determine if the b-roll should be filmed before or after the sit-down interview.
- Ask the subject if they have a neutral shirt that is NOT white, red, or with busy patterns.

For sit-down interview:

- Have interviewee locate the photos before interview starts. While they are locating photos, use this time to setup for the cameras and lights. It will take 20+ minutes.
- Locate interview location
  - Some best practices when selecting the site:
  - Locate a comfortable shaded spot with plenty of room.
  - The spot should not be windy, but if there is wind, put it to the back of subject.



- Background should be darkly colored and not too busy.
- Background should add context about the person being interviewed, but should not be too busy or distracting.
- There should be 20 + feet behind the interviewee to isolate the lights from the subject.
- If indoors, be sure ALL indoor lights can be turned off. Otherwise, choose outdoor location.
- Locate a fixed object or non-swivel chair for the subject to sit on and for the interviewee. Choose if the subject will be talking left or talking right. Try to alternate position between interviews.
- Have one crew member “sit-in” for the subject for camera setup.
- Assemble tripods, attach iPad, attach TASCAM unit, attach microphone, and attach headphones.
- Start with the iPad positioned for a wide shot.
- Open Camera app and set to video. Double tap to be sure you’re viewing full frame.
- Turn on mic battery pack, select correct mic port on the TASCAM unit, and monitor audio for the subject and the person

conducting the interview. Replace batteries or check settings as necessary.

- Setup the lights. Make sure lights are not visible in the iPad frame.
- Set the exposure and the focus on the iPad and lock it.
- Have the subject sit in the “hot” seat or interview seat.
- Hide the mic cord inside their shirt and neatly clip the mic 6 inches to 1 foot from their mouth.
- Have them tell you “what they had for breakfast.” “Count 1-30.” “What is your favorite book, tell me the basic outline.” Use this audio to calibrate their mic volumes to be correct at -12db (so occasionally touch yellow but NEVER in the red).
- Hit record on the iPad.

Begin interview. Best interview practices include:

- Ask them to state their name and what they do, title, position, etc.
- Wait until they finish speaking before you start the next question. Make very little noise while they are talking.



- 
- Try to keep the interview very conversational. Choose question from the list and reframe them so they sound natural in the course of the conversation.
  - Any dead time, or repeats of the same question or answer, is fine and can be edited later.
  - If an airplane, car, or off-screen voices are present, wait for the noise to stop and re-ask the question.
  - Ask them to describe what is happening in specific photos they provided ahead of time.
  - End interview

If they have photos to share:

- Setup lights so they are facing the floor. Place photos one at a time on the floor, capture them with a high-res iPad photo square on the camera.

After the shoot is finished:

- Download all video and photos from the iPad to the laptop. There should ALWAYS be two copies of the footage.