



# **FIRST<sup>®</sup> GLOBAL**

## **VIDEO PRODUCTION GUIDE**

### ***FIRST Global: Video Production Guide***

This is a document to help guide FIRST Global teams in planning, executing, and producing video content for the upcoming FIRST Global Challenge. Thank you in advance for all the hard work you're about to do to make this project a reality. Creating good video is easier than ever do to better technology becoming readily available all over the world. Still, creating quality products requires hard work, planning in advance, and knowing the right skills and techniques.

FIRST Global is a resource for you to accomplish your project. When you are ready to begin the project set up a meeting with Colin ([colin@first.global](mailto:colin@first.global)) to talk through this guide and the plan for the production of your video. Colin and others at FIRST Global are a resource to help you make the best video possible, so feel free to reach out at any time with questions, comments, or concerns.

### ***Why We Are Producing Videos?***

We have a lot of goals here at FIRST Global, and one of them is to inspire students the world over to pursue their interests in STEM. We feel one of the best ways to inspire others is to tell each teams unique story. A well done video, even if it's a minute or two long, has the potential to be shared all over the world, and to be viewed by students who do not have the opportunity to participate and compete in the inaugural FIRST Global Challenge. Seeing FIRST Global teams compete from all over the world will inspire these students to pursue their own interest in STEM.

These videos will be shared via our social media (Facebook, Twitter, etc.), our website ([www.first.global](http://www.first.global)), and will be part of our live stream at the FIRST Global Challenge in July. Finally, our hope is that collecting quality video from all over the world will help us better tell the FIRST Global story, growing the organization beyond what it is today.

### ***Gathering Your Resources***

The first step to producing a good video is finding the right people to make it happen. Begin asking friends, family, and professional contacts for individuals who have experience in shooting video. These individuals can be amateurs or full-blown professionals: as long as they have access to quality equipment, and the time and skills required to produce quality video.

In addition to recruiting a volunteer to help shoot video, you may also want to consider hiring a local professional videographer. Usually these professionals come with better gear, experience and training, which can lead to a better video. Professionals can usually be hired for a couple hundred US dollars for a day of filming (with exceptions), and frequently give discounts to non-profits, schools, and other educational groups.

Finally, if you cannot recruit skilled volunteers or hire a professional, you may want to explore doing the video yourself with the assistance of your team. Although this isn't recommended, it is possible (although difficult) to quickly learn the skills necessary to produce a workable product.

Regardless of what option you chose, contact Colin ([colin@first.global](mailto:colin@first.global)) to talk over your options in producing the video before you make your final decisions. He will be more than happy to offer advice and talk over details on how to best proceed.

## Planning Your Shoot

Your next step is to begin planning your video shoot. Good planning ahead of time will help ensure a quality video, and prepare you for any problems that may occur.

The purpose of your planning will be to give your videographer as many opportunities as possible to capture quality video. Broadly speaking, there are two “types” of video that need to be captured, and thus taken into account before the shoot takes place:

### Interviews

The core of most documentary videos are interviews by individuals related to the subject or story you are trying to tell. For our purposes interview subjects will be students, mentors, and other individuals helping the team in preparation for the FIRST Global Challenge. Interview subjects will be placed in front of a camera and be asked questions related to FIRST Global and their teams preparation for the event.

When planning interviews, please take the following into consideration:

- **Location:**
  - **Size:** Be sure the location is large enough to accommodate the camera, interview subjects, and other equipment the videographer will need to set up a quality interview.
  - **Noise:** The location should be free of as much random noise as possible.
  - **Lighting:** If possible, try and secure an area that has ample natural lighting.
  - **Power:** Videographers will likely need electricity to charge batteries and power lights.
  - **Interesting Background:** The best interviews are conducted with interesting backgrounds. Avoid sticking your subjects against a blank wall, and instead try and find a background that has depth or interesting features. Examples are attached in the appendices of this document.
- **Time:** Please plan enough time to conduct the interviews. A good suggestion is to plan at least 20min per subject. Additionally, if you’re depending on natural light be sure to conduct the interview during the day.
- **Interview Subjects:** Your interview subjects should usually be your students and mentors participating in the FIRST Global Challenge, but the sky is the limit on who you can interview. Other examples include parents, other mentors, school officials, and local community leaders. As long as they have something interesting to say about your team and FIRST Global, they are worthwhile to bring in for an interview!

Note on Languages: When planning interviews, please make every effort possible to conduct the interviews in English. If this is difficult for you to do, please contact Colin at [colin@first.global](mailto:colin@first.global) to discuss alternative options on conducting interviews and translations.

### “B-Roll”

B-Roll is shorthand for any video that isn’t an interview. B-Roll’s place in a video is to make the videos more visually interesting and to help support the story being told by the interviews. For example, while a student is talking about building a robot, we will then cut to video of him actually building a robot, thus supporting what he is talking about. The possibilities here are endless.

When planning b-roll, please take the following into consideration:

- **Where to Capture B-Roll:** By far the best place to get quality b-roll is during a meeting (or several meetings) of your robotics team preparing for the competition. Although this will likely be the best setting, you can also capture b-roll in other locations as well.
- **More Is Better:** Try and capture as much b-roll as possible. The more options we have to make great videos, the better!
- **Try and Capture Something Unique to Your Country:** If you are set up in an iconic city, a rural village, or typical suburb, try and capture some b-roll that helps communicate the setting of your video. Examples could include iconic landmarks, flags, etc.
- **Audio Isn't As Important:** We strongly encourage you to capture good audio while shooting b-roll, but it is not as important as interviews. Feel free to shoot in noisy locations.
- **Photos Work Too:** If you have any high quality photos of your team, those can also be used as b-roll! Please send any photos you have that you think will work well for the video, and we will be able to use them!

Note on Robots: We hope you have the opportunity to conduct a shoot with your team interacting and using robots. However, before you plan your shoot, contact Colin at [colin@first.global](mailto:colin@first.global) to discuss your options for executing these shoots.

## **Executing the Shoot**

### ***Plan Ahead, but Feel Free to Improvise***

Having a plan in place is key, but feel free to improvise during the shoot to get good content. For example, if it's a nice day, you may want to film some in the outdoors. Or, if the power goes out during your shoot, you may want to make that a feature of your story; you're so dedicated to the FIRST Global Challenge you'll work in the dark!

### ***Interview Questions***

Please prepare a quality list of questions to ask your interview subjects before the shoot. We have a strongly suggested list in the appendices of this document.

During the interviews, please keep these suggestions in mind:

- Feel free to repeat questions, ask follow up questions, and improvise when conducting an interview.
- Avoid "yes" or "no" questions. Ask questions that are open ended, and will prompt your subject to talk at length.
- Ask them to repeat the question you asked, and stay on them to follow through. It's easier to edit a video if the subject states the question, thus providing context.
- Try and make the subject as comfortable as possible. They'll be more likely to open up if they don't feel under pressure.
- Try not to talk over your subject. Once you ask the question, do not say anything until they are finished speaking.
- Don't provide the questions ahead of time to the subjects. These can lead to "fake" sounding answers.

## ***Executing the Shoot***

After you have finished your shoots, now is the time to produce a final video! We here at FIRST Global have a stellar team of video editors who will be more than happy to take your footage and produce a final product. You may also want to edit the video locally as well. If you can find a local volunteer to shoot the raw video, you may also be able to find a volunteer to edit the video as well (it may even be the same person). There are also professional video editors for hire as well.

Regardless of the path you choose, we ask that you collect all the raw video you shot and send it to FIRST Global. To do so, contact Colin at [colin@first.global](mailto:colin@first.global), and he'll be able to walk you through the best methods of transferring the raw video.

## ***Thank You!***

Thank you for all your hard work in making our project a reality! Please review our attached appendices which will provide additional resources on how to produce the best quality video possible. At any time, feel free to contact Colin at [colin@first.global](mailto:colin@first.global) with any questions, comments or concerns you may have. Happy filming, and good luck!

## ***Appendices List***

1. Sample Interview Questions
2. Video Tech Standards
3. Interview Framing Examples
4. B-Roll Examples
5. Past Country Video Examples

## ***Appendices One: Sample Interview Questions***

A Please use this a starting point for developing interview questions for your subjects. Begin developing your own list, and what questions that will help tell your teams unique story. If you have any questions, or would like some advice on developing specific questions, contact Colin at [colin@first.global](mailto:colin@first.global).

### ***Mentors:***

1. Why do you think getting young people engaged in robotics / engineering / science is important?
2. Why specifically is FIRST Global a good program to engage young people in robotics?
3. What is your dream for these young people and how FIRST Global will impact them?
4. What do you feel about the opportunity to compete on a world stage?
5. What unique challenges are there in your country that keeps young people from being successful in STEM?
6. Give a specific story from your team of success or failure and what that taught them.
7. How has science and/or robotics impacted your own life?
8. How is the engineering field impacting your country? Is engineering a beneficial field of study and career for your students?
9. What challenges are you encountering in preparing for competition?
10. What are you most excited about when it comes to being part of FIRST Global?

### ***Students:***

1. Why are you excited to be part of FIRST Global robotics?
2. How will you take what you are learning in this competition and use it in your life?
3. What made you interested in engineering and STEM?
4. What about your mentors inspires you?
5. Why do you think your team is going to be successful?

## ***Appendices Two: Video Tech Standards***

This appendices page is focused towards videographers on how to set up their camera and equipment to achieve the best quality video possible. If you have any questions, or believe you are not able to meet these standards, contact Colin at [colin@first.global](mailto:colin@first.global).

Interviews are to be shot on in a two-camera setup. If using a DSLR or camera with low quality audio recording options an external recorder should be used.

Interviews are to be shot documentary style (the subject does not look into the camera) with a normal lens and a tighter lens. For full-frame sensors we suggest a 50mm and 85mm lens. Shoot with good depth of focus but not so shallow the subject is often out of focus.

Please refer to the appendices 3, 4 and 5 on examples of interview framing, b-roll, etc.

### ***Video:***

- Accurate white balance (do not use auto white balance)
- Use manual exposur to ensure the best possible picture
- Shoot in a “flat” picture profile – for modern Canon DSLRs this is known as “Neutral”
- Shoot in the highest resolution and codec possible – for modern Canon DSLRs this is 1920x1080 ALL-I
- You must shoot in at least 1080p at 30 frames per second
- You may shoot in 720p, if shooting at a higher frame rate to achieve a slow-motion effect. Do not shoot interviews in 720p or any frame rate other than 30 fps.
- It is highly suggested the interview be filmed first – to give insight into what b-roll needs to be filmed.
  - At least 30 b-roll scenes need be filmed. More is preferred.
  - Each scene should last at least 30 seconds.
  - Allow a scene to have 5 seconds of no movement in the beginning and end.

### ***Audio:***

- Record the subject with a livelier or boom microphone. Do not use the built-in camera microphone
- Record the highest audio quality possible – preferably a 48kHz uncompressed format (like .wav) at 24-bits or better.
- Do not set audio levels to automatic – monitor at all times to ensure you are getting around -12 dB at all times.

### ***Lighting:***

- Interviews should have at least supplemental lighting on the face.

### ***Data Management:***

- Copy all data (video, audio, etc.) to at least two separate hard drives.
- Contact Colin ([colin@first.global](mailto:colin@first.global)) on how to transfer the film to FIRST Global.
- Keep files organized.



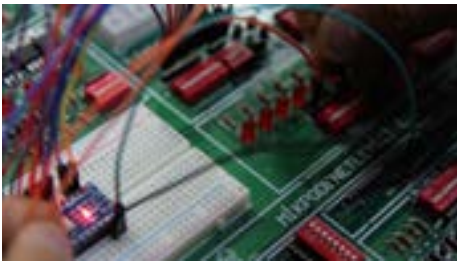
## ***Appendices Three: Interview Framing Examples***

Use these as examples as a guide to set up your interview shots. Please don't limit yourself to just these examples. Feel free to experiment to find the best framing available.



## Appendices Four: B-Roll Examples

Use these as examples of quality b-roll shots you can capture. Please don't limit yourself to just these examples. Feel free to experiment to find the best shots available.





## **Appendices Five: Past Country Video Examples**

FIRST Global and local teams have already produced several videos a wide range of countries. These can serve as a good starting point to see what type of videos we are trying to produce. Please only use these as a starting point, we want each national video to have its own unique production and perspective.



### **Team Nepal**

<https://youtu.be/g7Hmd8WivZc>



### **Team Honduras**

<https://youtu.be/BeErtkv7eDM>



### **Team Bangladesh**

<https://youtu.be/j9A0RKJ4GuM>



### **Team Rwanda**

[https://youtu.be/Y\\_EHpqA1TOg](https://youtu.be/Y_EHpqA1TOg)



### **Team Turkey**

<https://youtu.be/DZG4UnXtIH4>



### **Team Peru**

<https://youtu.be/RVpLzPXZdMM>