

Creating Videos for the ADST Classroom



Michael Holbrook

Delta School District

Seaquam Secondary School

[Youtube.com/webuildstuff](https://www.youtube.com/webuildstuff)

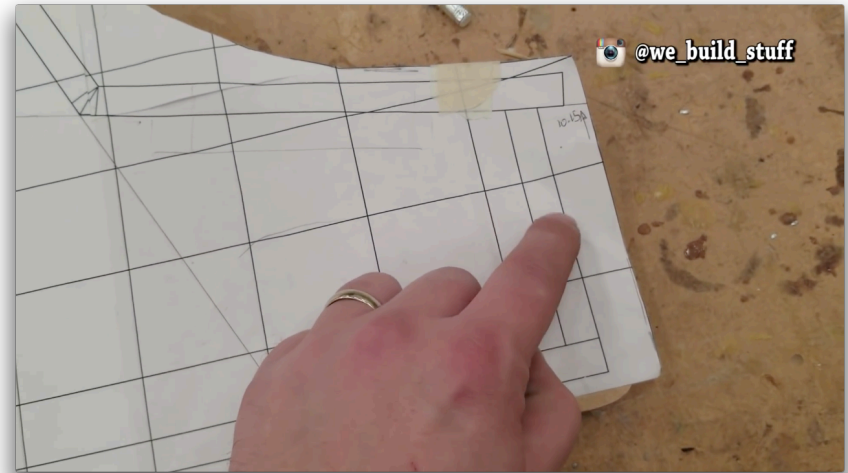
mholbrook@deltasd.bc.ca



What are we doing here?

- This workshop covers the basics and introduction to creating video resources using digital cameras or/your phone and a computer that can be viewed by your students and other teachers for either safety, project tutorials, demonstrations, etc.
- We cover the basics of script preparation, audio capture, camera setups, and simple editing, and online sharing that makes your video enjoyable and easy to learn from.

- Just about every student has the ability to pull out their phone or use a classroom computer to research projects or to learn new information. Creating your own video tutorials ensures your students are learning **THE WAY YOU WANT THEM TO LEARN** and they aren't picking up bad habits from other video tutorials or the wood teacher.
- So with the time and potential **HOURS** that can go into producing videos or even just filming one why would we do this rather than only teaching in our class?

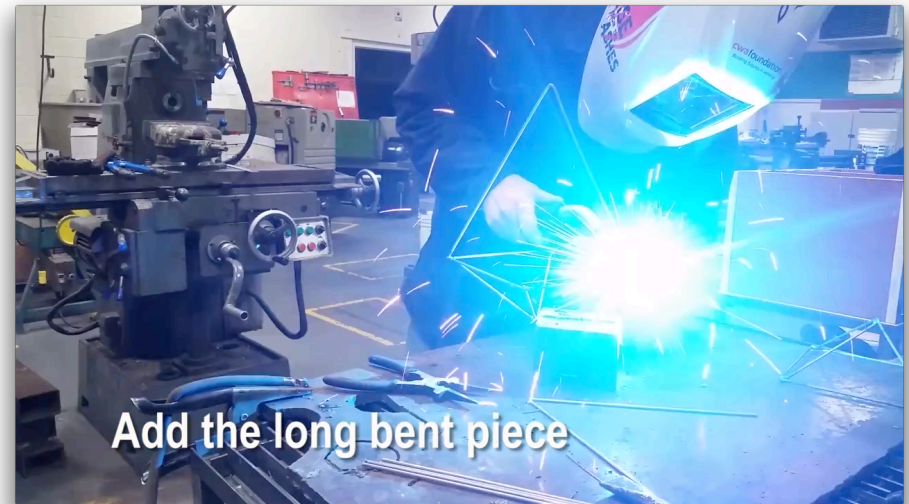


Rationale:

- Students that are hard of hearing or have a learning disability may need lots of repetition that we don't always have **time** for. Direct them to the video. You have an ESL student who needs extra instruction? Youtube allows for subtitles in any language (sometimes automatically if your audio is clear enough) that a student can watch to help their understanding. An EA can watch with their students in their "other classroom" to help a student study for their safety test or feel more prepared.

My original and selfish rationale!

- How often have you taught a simple lesson only to be asked the same questions you answered 5 times already? Direct them to your YOUTUBE video and have them come back if they still need help.



Today's content

- 1. Script Prep
- 2. Audio capture and lighting
- 3. Camera setups
- 4. Simple Editing
- 5. Online Sharing

1. Script Prep

- We can all tell when a presentation from a student or teacher at a Staff meeting hasn't been properly prepared. They stutter, say uh a lot, are missing points, and put you to sleep within the first 20 seconds if they make it that far.
- Preparing a script or an outline of your shot list, materials needed, etc will help the actual filming go smoothly and prevent you from having to re-film things later when you start editing.
- I personally use point-form notes.

1. Script Prep

- CONTENT IS KING!
- Regardless of how the video is filmed if the content is bad or not delivered in a way the audience can understand then it is pointless.
- ie. My original lost wax casting video is embarrassing for me to watch since half the information is wrong... but the students never knew that!

Good content

- Problem: My wife's van engine light came on.
- The first thing I did seeing code P0128 was typed it into Google along with the year, make, and model.
- This was the first video I found and it had all the important information I needed to complete the 'project'
- Recommended tools, some safety talking, how to do it, etc



<https://youtu.be/YPpmDUxNuq8>



Code P0128

- The bad part of the video for me was that the person was holding their phone in one hand and trying to work with the other.
- The thermostat was in a tight spot so it is understandable that putting it on a tripod may not have worked but a steadier shot would have been sweet.
- But.....

Code P0128

- But all the information and content was there in order for me to complete the job!
- We should always assume our students have no skill or prior knowledge so cover the important information so they can get the job done efficiently and without too much wasted material!

For a project video that I haven't built before I treat it as a build log and edit it into a tutorial later.



Arcade Build Log - super fast



- For projects I do every year I try and include links to the plans, subtitles for important/key information. I try to plan out where and how I want the camera angle to be so that it shows the important information. The final video also **doesn't and shouldn't** need to be the same length as the actual build.
- A 5 minute video instead of 3 hours is manageable for a student and they can't stare at their phone for too long without a good excuse!

Geometric Shapes Video



https://youtu.be/g6_q9ZdffGw

2. Lighting and Audio Capture

Lighting:

- If your room/area is too dark you won't be able to show anything in your video!
- Put a lamp beside you, open a window, use an LED VIDEO LIGHT
- Use a flashlight
- JUST ADD LIGHT!



Audio Capture

- If the room you are in isn't loud, doesn't have a dust collection system running, screaming students, etc then the onboard mic on just about any camera or phone should be fine.
- Just stay close to it as it won't pick up your voice very well if you are over 10 feet away in an big room. ECHO!!!

Audio Options

On Board Mic

- built in to your device

Shotgun Mic

- External and attaches to top of a camera/tripod/stand

Lavalier Mic and portable recorder/phone

- Plugs into a recording device and the sound file can be synced to your video by editing.



Watch Audio test video

- <https://youtu.be/MGFZ2jlbglo>



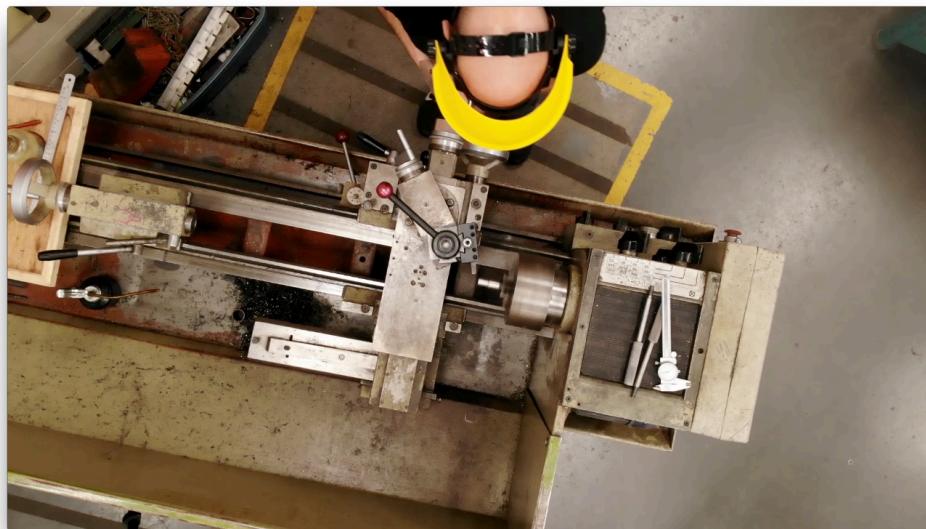
Audio test video recap

- What did you see/hear?
- The audio from the lav-mic was way nicer than the other audio sources!
- I should have raised the camera pointing at the stock while filing since you couldn't see anything

3. Camera setup

- The best camera is the one you have with you
- Mobile device, handy-cam point and shoot, DSLR or mirrorless, etc
- Regardless of which you choose make sure it is easy to use and easy to edit with!
- The only reason I have some more expensive gear is because that is what I've chosen to spend my money on... and I do video and photo work on the side ;)
- I do still prefer using my Cell phone for the majority of stuff. I don't like bringing expensive gear to school

- You can get fancy and use two cameras to record at once. An overhead view as well as a front facing mid view of you working if you were doing a breadboarding demo for example. Cut back and forth when editing.



- Get a tripod for cheap! Should be sturdy enough to handle shop abuse.
- One in photo is \$23 on amazon.ca
- You can get awesome phone adaptors for super cheap online.
- I 'upgraded' the part I ripped off a dollar store selfie stick for a \$12 one on amazon



Cell Phone adapter with ¼" threaded bottom (fits on most tripods)



Cell Phone Tripod Adapter, WixGear Universal Smartphone Holder Tripod Adapter for ALL Smartphones

by WixGear



29 customer reviews | 5 answered questions

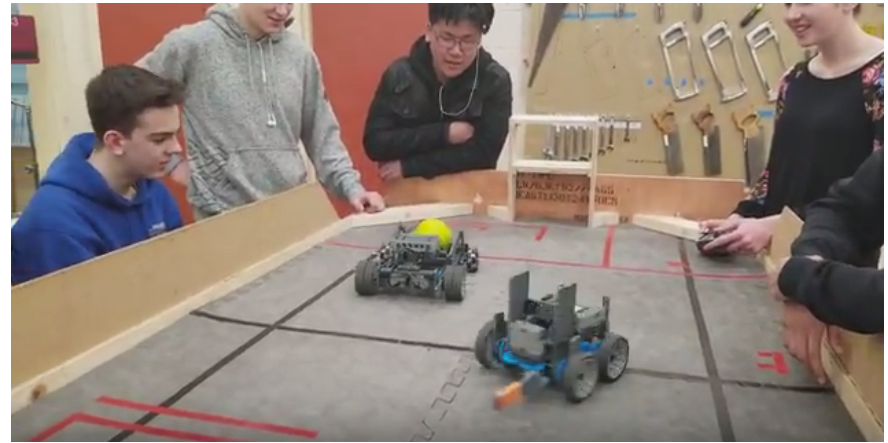
Price: **CDN\$ 11.99** ✓prime

13 new from **CDN\$ 11.99**

- Compatible with all Android, Windows, Blackberry and Apple Smartphones. Mount seamlessly with any iPhone 6, 5, 5C, 5S, Samsung Galaxy S5, S4, S4 mini, Note 3 and lots more
- Made from premium quality plastic and soft protective rubber for extended durability and protection
- Features tripod screws on both sides, a soft foam bumper, arms and protective rubber lips
- Fits any standard tripod with a ¼ inches-20 threading. Extremely easy to use and super convenient to setup
- FITS ALL SIZES SMARTPHONES: This can be extended to use it for all size smartphones for smaller size and the bigger size smartphone

[Report incorrect product information.](#)

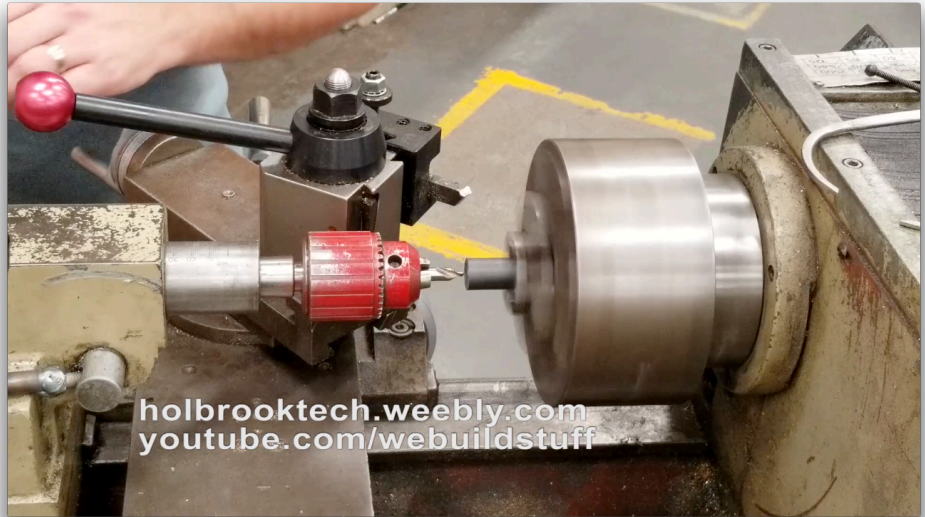
- Get your students involved in the process. Why do all this work yourself if you have some keen students with knowledge. If students are featured in the video and it is made available publicly (youtube, etc) make sure to get a parental consent form allowing the use of their image in media. If not make them wear masks so their face is not recognizable.



- Monitor your angles and make sure the content is in focus. Clean up distracting backgrounds so your students or viewers can concentrate on the content that matters.

Hammer Build Clips

- https://youtu.be/Z5CgV_kW8js
- In this video you see lots of different camera angles. I was concentrating on the video rather than the audio as I plan on dubbing over my voice and having the important information using on screen text or basic subtitles.



Bees Wax/Pirate safety

- <https://youtu.be/gNt9IzOBrIY>

Devin Reece made a great video and posted it this week on the BCTEA facebook page

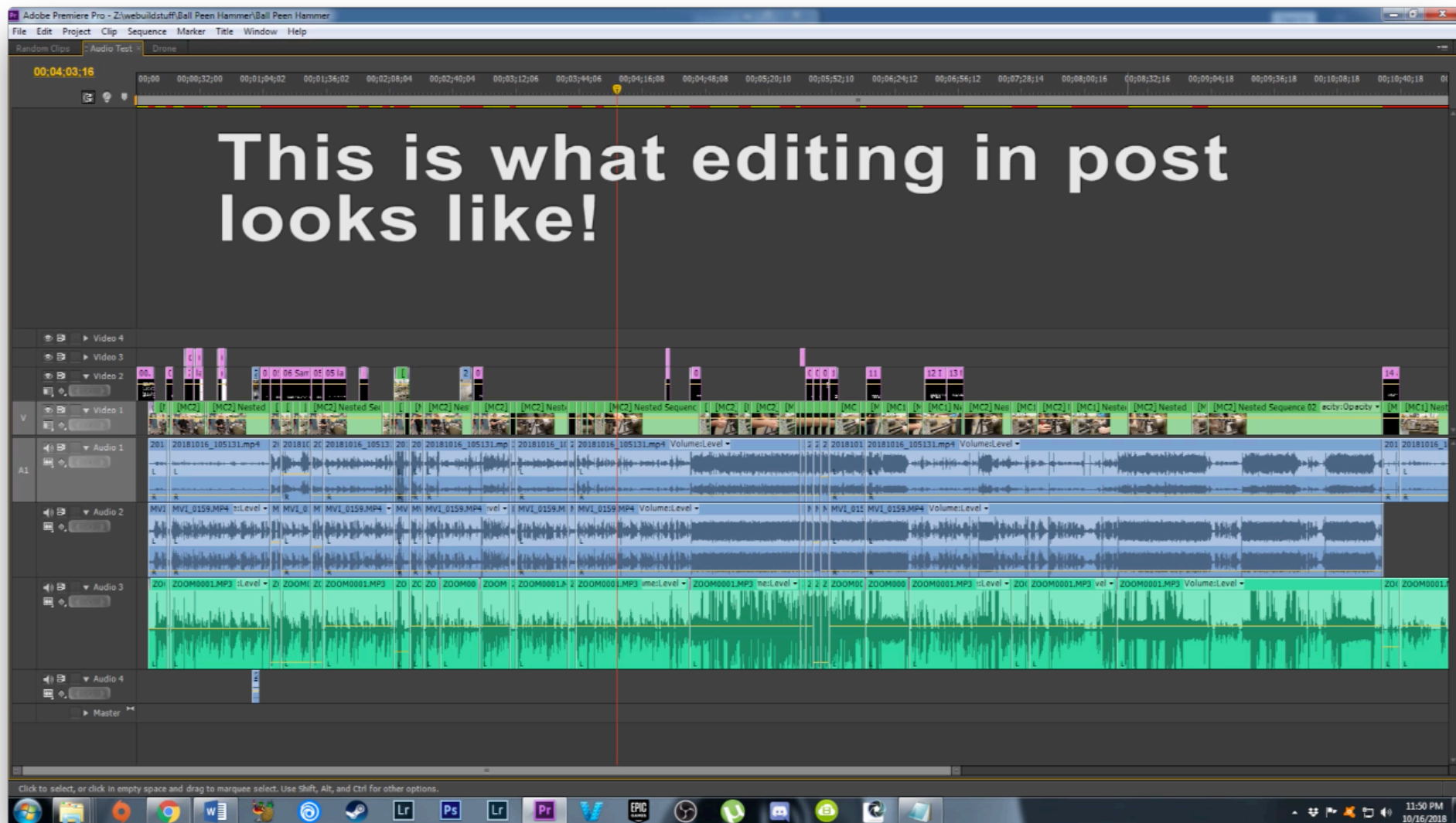
- Good camera angle
- Information easy to understand
- Entertaining to listen to!

4. Editing

- Most school provided computers will come with video editing software in some form or another. My school computer has a tiny hard drive so I have to use an external drive for storage. While this is out of my own pocket sometimes I do find it helpful as the video tutorials make my life easier in the long run. I have used windows movie maker, iMovie, and for the last few years Adobe Premiere Pro Cs6 exclusively as I like the way I can organize folders, clips, text/titles, multiple layers of video and audio, multi-camera setup, etc.

Editing

- iMovie, Premiere Pro, Final Cut, Windows Movie Maker, apps for your phone.
- Most of these don't require a super steep learning curve.
- **Edit out the boring stuff, add text for key information or if you forgot to say it while recording**
- Editing is way easier if you filmed it right and didn't add in meaningless content



5. Online Sharing

- **BACK UP YOUR FOOTAGE!!**
- External hard drive, cloud, etc
- You have worked hard on making videos so make sure you don't lose it!
- Share it with the world if you can handle public abuse and online trolls!



Dropbox



Google
Drive

ME

Mega

OneD

OneDrive



iCloud



Box



Nextcloud
Nextcloud

- You've put all this hard work into creating videos. Share them with the world and be prepared to get brutally honest feedback from strangers.
- 90% of the comments on my videos are good. There is always 10% of people who are ***** or don't realize they are being ***** with their 'constructive criticism' or feedback. Deal with it. Answer their questions or ignore them!
- Sometimes you deserve the abuse though. Have someone give you some constructive criticism before posting to make sure it is a good video!



Online Sharing

- Don't want it available for public and only for your students? Set the videos privacy to unlisted and share the direct link on your teacher website or with the URL written on your project handouts or posters.
- YouTube is probably the most popular place to share videos. Other place like Facebook and Vimeo are good too but you won't have as wide of an audience and most students will already have the Youtube App on their device.
- <https://support.google.com/youtube/answer/157177?co=GENIE.Platform%3DDesktop&hl=en-GB>

Computer screen capture

- OBS (Open Broadcast Software) is free and extremely easy to use. Check out Youtube videos for how to set it up for what you need!
- Works on Mac, PC, and Linux
- In addition to recording you can also livestream!
- <https://obsproject.com/>

Big Questions

- Won't creating video tutorials make my job obsolete so any robot can do it?

Nope!

- I use my videos as a reminder for students as well as a way to watch myself and improve my craft. 5 years later watching some old videos I have made I have changed things up and learned new things. I still leave the video up because it may still be useful for some people.

Checklist for making a video

- Script or plan. CONTENT IS KING!
- Some sort of video camera
- Tripod if you need it
- Audio capture (in camera or external) and lighting
- Basic Editing software
 - edit out mistakes, etc. The students don't need to know!

Homework: This is school darn it!

- In the next month I want each of you to try and make a short (3 minutes-ish) instructional video and send it to me or share on the group BCTEA Facebook page.
- I want each of you to force yourself to try this and put yourself out there for comments and constructive criticism.
- We all build and teach differently. Having each other as mentors can help with ideas, or things we may not have even thought of during our teaching and classroom processes.
- Email me! mholbrook@deltasd.bc.ca
- Send a link to your video. Don't send me the file as my inbox has a MB limit!

Q & A!

- If we have run out of time please message me through email or find me on the BCTEA facebook page.
- Check out my Youtube Channel and leave a comment!

Michael Holbrook

Delta School District- Seaquam Secondary School

[Youtube.com/webuildstuff](https://www.youtube.com/webuildstuff)

mholbrook@deltasd.bc.ca

