



# LECTURE / LAB / TUTORIAL

# Video Capture Kits

July 14, 2020

This presentation will include video production best practices and technical set-up instructions when using School of Engineering's portable video capture kits



THE UNIVERSITY OF BRITISH COLUMBIA

**School of Engineering**

Faculty of Applied Science  
Okanagan Campus

## FOCUS OF ONLINE TEACHING THROUGH VIDEO:

- Quality (visuals / audio)
- Pedagogy
- Consistency
- Branding

## WHY IS THIS IMPORTANT?

We have an obligation to provide students with the best learning resources possible. Embrace this challenge, and help the School of Engineering offer best-in-class content.

## WHERE TO START?

- Before you include video in your online teaching, ask yourself:
- Why are you including video? Will it augment the student experience?
- Who is your audience?
- Can you convey the material in a clear and succinct manner?
- Does the whole lecture/lab/tutorial need to be a video or can you use video to emphasize certain content?
- Do you have all the appropriate course content and brand assets?

## PRE-PRODUCTION

- Start with your presentation notes and slides
- USE SCRIPT TEMPLATE
- The slides can serve as a “storyboard” for assembling your video
- Consult with CTL, UBC Studios and/or Sam Charles to ensure you are meeting pedagogical and production standards
- Review <https://ctl.ok.ubc.ca/teaching-remotely/>

## OPTIONS FOR BUILDING YOUR VIDEOS

- Borrow a camcorder, microphone and lights from UBC Studios Okanagan (free)
- OBS Project and Camtasia are also options for creating your videos
- Editing software (iMovie for MAC & Moviemaker for PC)
- Videoscribe is free for all faculty and staff. Once you are in Connect, click the “Resource” tab, then scroll down to the bottom of the page to register for Videoscribe. Register at <https://lthub.ubc.ca/guides/videoscribe/request-license/>
- Keep your videos under 6-minutes if possible (for file size and accessibility reasons)

# PREPARATION IS KEY TO SUCCESS

Ensuring that you have a script (even a partial script) pays dividends:

- Efficiency
- Set-up
- Shot selection
- Understanding how video fits into your canvas or method of distribution

## TEMPLATE VIDEO PRODUCTION SCRIPT School of Engineering Lab

Please complete the script and requirements sections of this document before scheduling a shoot

Video title (include course title, experiment name):

Purpose of video:

Audience:

Ideal length:

Stakeholders (who needs to be involved including instructor, presenter and technician if applicable):

Location:

Tools, Safety Equipment, Props, etc.

All sequences of the video MUST be scripted to ensure the camera operator and the presenter do not miss any steps.  
Follow the script format below.

Visual	Narration	Graphics/Text	Time
Full screen slate (white text with blue background)		ENGR 101 Making Toast with a Toaster Required equipment: slice of bread & toaster	00:00-00:06
	The following safety precautions must be followed	Safety Precautions for making toast lab...	00:06-00:30
Presenter in lab (establishing W wide shot – cut to M5 medium shot)	Welcome to our lab making toast with a toaster  (presenter can adlib narration but this section needs to include all pertinent points that must be covered).	Name key of presenter	00:30 – 01:00 (Ideal length of this section)
Presenter highlights materials (CU close-up of bread and toaster)	Today, we will be using a slice of bread and a toaster to create toast  The process takes three steps	(List 3 steps)	

All videos will end with a School of Engineering tail bumper.





## VIDEO CAPTURE KITS

The School of Engineering has assembled two lecture/lab/tutorial capture kits.

Priority will be given to lab videos

Booking will be handled by the SOE Technicians (email Emily Zhang to book)

*We are working on an online booking system*



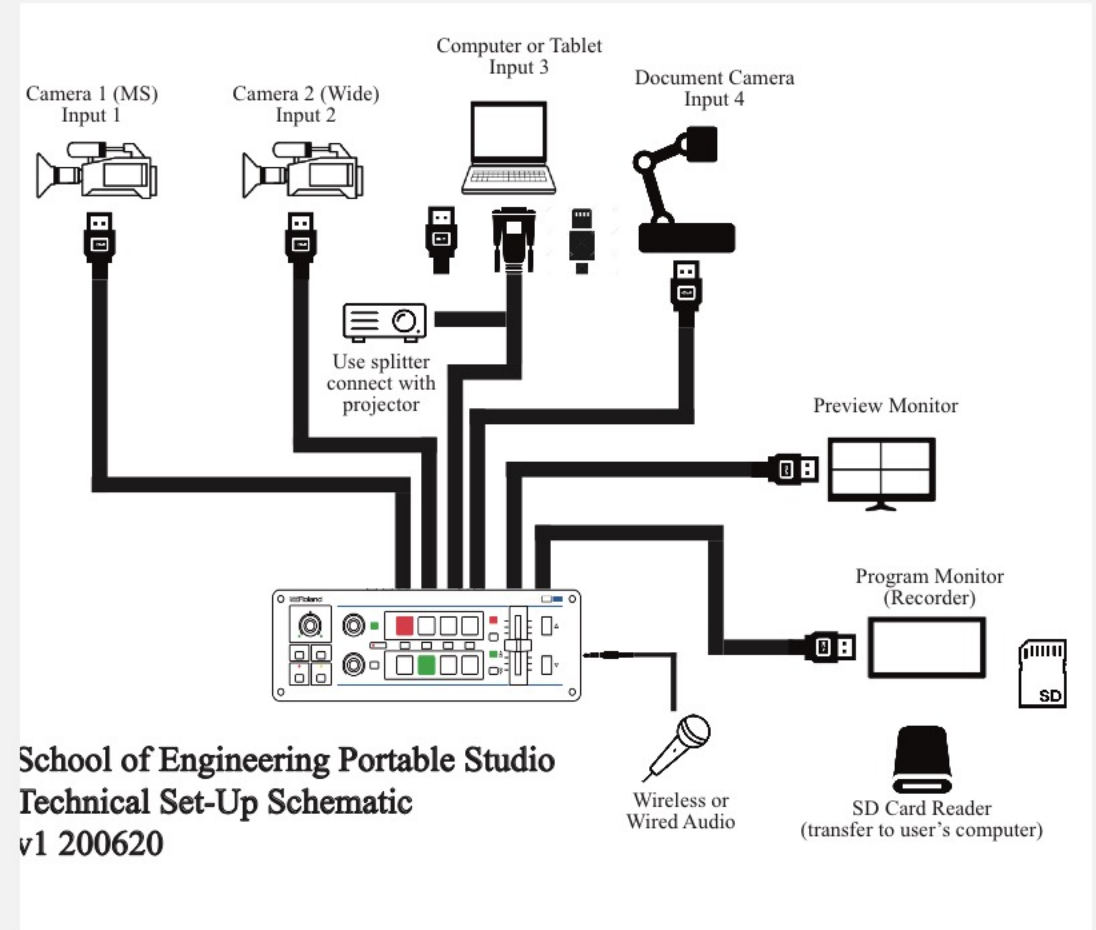
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## SOE VIDEO CAPTURE KITS

- Two kits are available
- Both kits include an extension cord reel and 2 tripods
- Nearly identical with the difference being one has a AA battery charger and memory stick recorder





## BREAKDOWN OF EQUIPMENT

The set-up uses a physical switcher that includes 4 inputs/sources

Operator switches between the 4 inputs and can record the program feed (switched video) onto SD card

File sizes are large so compression is required



## PRODUCTION BASIC

- Keep the cameras on auto-exposure and auto-focus
- Zoom controllers are available to smooth operation
- White balance should stay on auto
  - You can adjust inside the menu (if you adjust put it back to auto at the end of your shoot)
- There is one video light kit available (includes 3 lights)
- You can add graphic (text) overlays but we could recommend you use PPT slides with photos if you are identifying tools, etc.

## PRODUCTION DETAILS

- Plug the wireless microphone into channel one of the camera
- XLR adapter is a bit sensitive
- On switcher press audio button select (non-follow, HDMI 1 as the audio source)
- Adjust the audio on the camera and on the switcher
- WEAR HEADPHONES (not supplied) plugged into switcher to monitor audio

# PRODUCTION

- Hit record on the monitor and/or memory stick recorder
- SD card reader available in kits for transferring files to computer
  
- You may wish to trim the intro and extro, so use a video editing software of your choice.
- Export as MP4 H.264
  
- SD card files will be large so use Handbrake (free software) to compress to an MP4

- Set-up gear and record from that gear
- SET-UP AUDIO into camera? Test for audio into switcher
- Recording presentation - document cam set-up over switcher
  
- Discuss compression and editing
- -moviemaker
- -Adobe Premiere
- -Kaltura
- -Final Cut
- Handbrake
  
- Importance of video script template and rehearsing
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- THE WHOLE IDEA OF THIS APPROACH IS CREATING DYNAMIC AND ENGAGING CONTENT WITHOUT THE NEED FOR EDITING





# **PLEASE TAKE CARE OF THE EQUIPMENT, AND RESPECT THE NEEDS OF YOUR COLLEAGUES**

If you require any assistance regarding the kits or video production please don't hesitate to email [sam.charles@ubc.ca](mailto:sam.charles@ubc.ca)



When shooting your videos:

There is a slight delay in the synch (7-frames) between the audio plugged directly into the switcher and the video

Best practice is to use the 3.5mm to XLR connector / plug into camera 1 and link the audio to the HDMI 1 (HDMI for camera 1) by pressing the AUDIO button and adjusting through the menus

Double-check that picture-in-picture is configured the way you would like  
Using the MEMORY button and adjusting through the menus

If you have any issues, consult the manuals (in each kit) and/or email Sam at [sam.charles@ubc.ca](mailto:sam.charles@ubc.ca)