

Training Session for Hybrid Meetings (In Person and Zoom):

Presenter: Ian Baikie, Rotary Club of Campbell River

Purpose:

To provide participants with equipment requirements, setup information and operating procedures to deliver hybrid meetings using Windows based laptops on Zoom, as used by the Campbell River Rotary Clubs.

Assumptions:

- Zoom operators understand how to 'Share Screen', 'Spotlight for Everyone', 'Add Spotlight' and 'Remove Spotlight'.
- The meeting space has adequate wireless internet capabilities to support two computers on Zoom with possible streaming video on one computer.
- Many clubs meeting in locations with built-in public-address systems (PA) equipped one or more microphones.

Four hybrid setups to be demonstrated:

- a) PA, large room, with dedicated in-person Zoom operator
- b) PA, large room, with podium user operating Zoom in room
- c) No PA, with dedicated in-person Zoom operator
- d) No PA, with podium user operating Zoom in room

Equipment Requirements (PA, large room, with dedicated in-person Zoom operator, maximum equipment):

- 1) 2 Laptops:
 - each logged into Zoom, one named 'Podium' and one named 'Hall'
 - Podium Laptop must be Host or Co-Host
- 2) LED Projector with screen or large screen monitor
 - connected to Podium computer by HDMI cable of sufficient length to avoid tripping hazard
- 3) Public Address system (PA), preferably with 2 microphones connected, with available 'Mic In' and 'Line Out'
- 4) Steinberg UR22C USB 3 Audio Interface (or equivalent) to be the audio interface to Podium laptop
- 5) Blue Yeti USB Microphone (or equivalent) with mic stand, optional USB Extension Cable (up to 20')
- 6) USB 4 port hub for Podium laptop
 - optional: Podium laptop may need 4 or more USB connections
- 7) 3 balanced audio cables
 - 2 - ¼" (3.5mm) male to appropriate jacks for PA connections, usually ¼" connector with adapters
 - 1 - ¼" (3.5mm) male to 2.5 mm male (Yeti), (1/4" by 2.5mm adapter is an option),
 - Cable lengths per setup situation, minimum 20', no tripping hazards
 - All cables are mono, not stereo.

- 8) 2 Webcams (USB)
 - at least 1 wide angle ~120 degrees for Hall laptop
 - 2 USB Extension Cables (up to 20' to avoid tripping hazard)
 - with tripods or mic stands
- 9) Small table for Hall laptop (may share with LED projector)

Setup Information (See Diagrams)

- A) **Setup a) and b)** require connections to PA (usually existing in facility).
 - i) Set up the Podium laptop with the Steinberg UR22C Audio interface (UR22C) connected by USB cable. Install the USB hub if required.
 - ii) One of the outputs on the UR22C is connected to a "Mic In" connection on the PA. 'Mic In' inputs are often XTR connector or ¼" (3.5mm) connectors. Adapters between these 2 standards are available usually at your local music retailer or online.
 - iii) The cable from the 'Line out' is connected to one of the US22C front inputs. 'Line out' or 'Pre amp out' jacks can be ¼" connectors, RCA connectors or 2.5 mm connectors. Again, adapters are available between ¼" connectors and RCA or 2.5mm connectors.
 - iv) To achieve good audio levels from the PA to the UR22C from the PA, microphone input levels are preferred above 5, best at 7-8. To achieve these levels, turn down the master or main volume control and turn microphone inputs to these levels. Then using a PA microphone, adjust the master or main volume control for good sound levels in the room.
 - v) Connect the Yeti microphone first with a USB cable to a computer to power it. Then connect the headphone output to a US22C front input. Set Gain and Headphone levels to half (vertical / 12 o'clock), select Mic Pattern (default circle), and ensure Mute is off (no flashing light).
 - vi) Place screen or monitor on either side of the podium (about 5 or 6 feet away) so viewers can see the speaker and Zoom screen without turning their head. Set up and connect LED projector or monitor to Podium laptop with HDMI cable.
 - vii) Set up a webcam (wide angle not required) on a stand to capture podium. Connect to Podium laptop by USB cable(s).
 - viii) Set up the Hall laptop so the screen is visible to podium speaker.
 - ix) Set up wide angle webcam on stand to capture the room, with profile of speaker at podium if possible (usually beside screen / monitor at front room). Connect with USB cable(s) to Hall laptop.
- B) **Setup for b)** PA, large room, with podium user operating Zoom in room
 - i) Use Setup a) & b), but set up the Podium laptop on a table beside podium for presenter operation.

- C) **Setup for c)** No PA, with dedicated in-person Zoom operator
 - i) Use Setup a) & b), but delete UR22C and connections to PA.
 - ii) Connect Yeti microphone by USB cable(s) to Podium laptop (no audio cable required) and use large monitor, or LED projector, or powered speaker connected to Podium laptop headphone jack, as speakers for room to hear Zoom.

- D) **Setup for d)** No PA, with podium user operating Zoom in room
 - i) Use Setup c), but set up the Podium laptop on a table beside podium for presenter operation.

2) Operating Procedures

- A) For all hybrid meetings there can only be **one** user with audio enabled in Zoom in any room. Users being muted does not work; audio must not be connected for other Zoom user in the same room – i.e., user must join zoom without audio.
****Critical requirement****
- B) With equipment setup complete, log into the Zoom meeting with Podium laptop. Podium laptop must be either the host or a co-host for the meeting.
- C) Log in the Hall laptop to Zoom, being careful to select “Connect without audio”. Zoom will ask to connect audio multiple times. Always select **no**. Sometimes you must select right top ‘x’ in dialog window.
- D) Operating **a) PA, Large room, with dedicated in person Zoom operator**
 - i) Test audio
 - (1) Using microphone(s) for PA, set room sound levels to comfortable level (Input audio controls to ~7-8 with master / main audio adjusted for appropriate room levels).
 - (2) Set the master output control on the UR22C to 5 (vertical). Input levels off.
 - (3) Using Podium laptop, in Zoom, select the up arrow beside the microphone icon, select ‘Audio Settings...’ ensure that the Steinberg UR22C Audio interface is in use for both the Speaker and the Microphone, close window. Then select the up arrow beside the microphone icon, select ‘Test Speaker and Microphone...’.
 - (a) Zoom will then play tones at a standard level to the speaker (PA). Adjust the input on the PA that has the UR22C output connected to it to an appropriate level for the room. When satisfied with the level select ‘Yes’.
 - (b) Zoom will now record what it hears on the microphone (UR22C connected to PA and Yeti mic) and play it back when it hears silence. Use a PA microphone to set the input level on the UR22C that is connected to the PA. When appropriate level is determined for PA to Zoom, note input position and turn off. Next set the level for the Yeti from various areas of the room, and note the input position and turn off. Set the PA input on the UR22C back to the desired level and select ‘Yes’ and ‘End Test’
 - (c) Check a presentation or video on the Podium Laptop for levels. Ensure the volume in the application playing the audio is set high (7-9) and computer

speaker levels are also 7-9. If results are not appropriate you can adjust speaker volume in Zoom 'Audio Settings...' and test.

ii) Video Testing

(1) Adjust both webcams. Hall webcam should show entire room, with profile view of the podium, Podium webcam should show at least 3 feet on either side of podium, and be set high enough for tallest speaker.

(2) Options for multiple screen display on Podium laptop:

Extended Desktop: Results in the screen that the in-person audience views be only the Zoom participants. Activities such as Participants, Chat and Zoom setting windows will appear only on the laptop screen. Extended display introduces complexity to operating the meeting, but provides for a better in-person viewing experience.

- With Display settings set to Extend display, place the LED projector or large monitor image above the laptop image. Move the Zoom Meeting image up to the display for the room (Default view is Fullscreen – Gallery View).
- Now open Participants and Chat windows and drag on to laptop screen. You can also open Audio Setting and drag it to laptop screen (unfortunately it will not resize at this time).
- Here is the complexity: in Extend display, Zoom will open Share Screens on the display where they are opened. So, any window you would like to Share must be placed on the upper room display to be Shared. Ideally you open all windows you might Share during a meeting and move them to the upper room display and re-open the Zoom Meeting image on top of them. Anytime you want the Zoom Meeting image on the upper room display, hover over the Zoom icon on the Task Bar and select the Zoom Meeting image.
- Another complexity is that during a Share Screen, if you 'click' the mouse on the laptop screen the Shared Screen presentation will stop. 'Clicking' the mouse on the upper room display will start the presentation again, but avoid using the mouse on the laptop screen during Share Screen.

Duplicate Display: Simpler operation, but in-person audience views all interactions with Zoom and presentations.

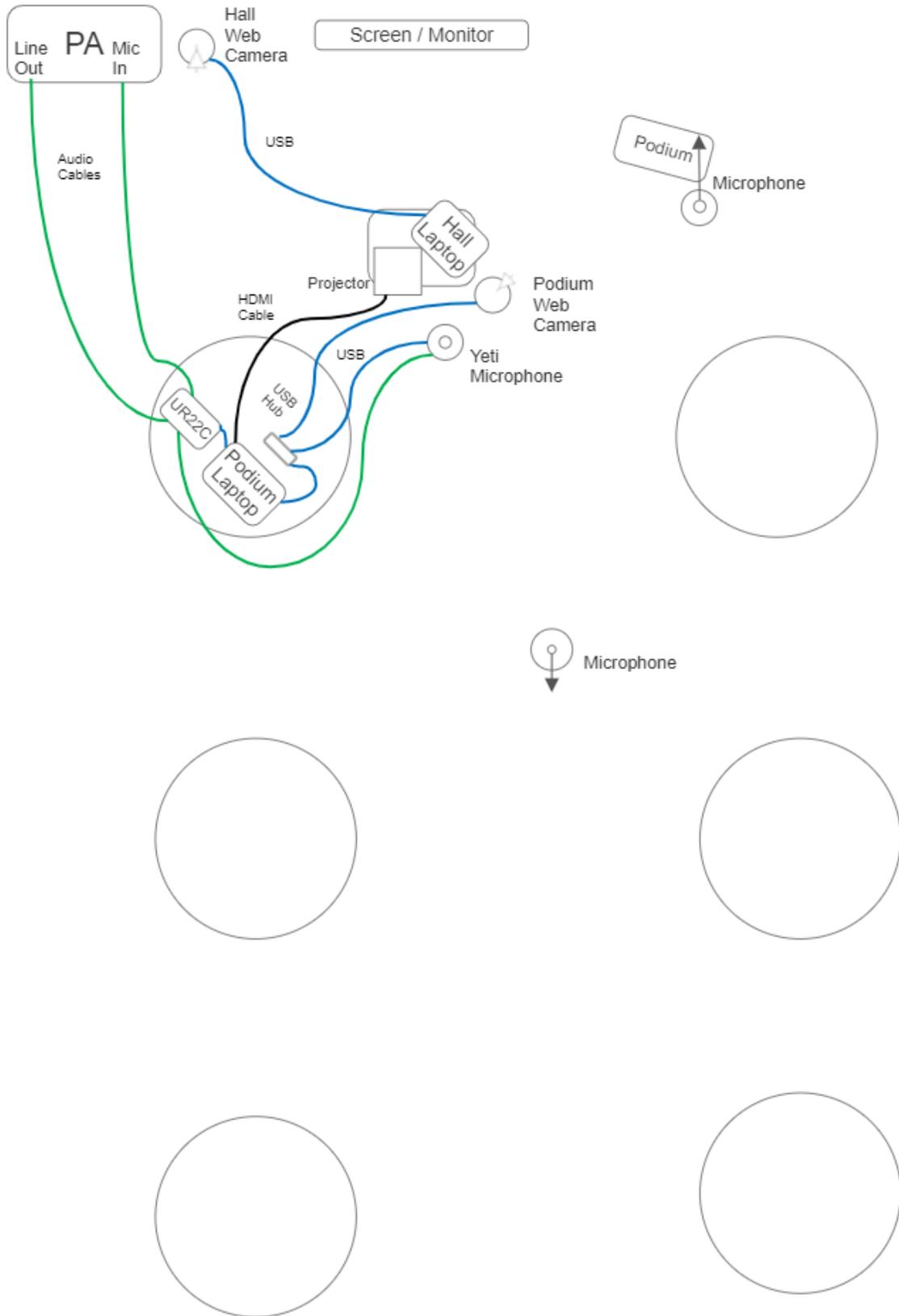
- In Display setting select Duplicate display in Multiple display. Move the Zoom Meeting image up to the display for the room (Default view is Fullscreen – Gallery View).

iii) Operator can Spotlight Hall, Podium and Zoom users to produce the best results for all. The Podium user can only be Spotlighted by right 'clicking' over the image in the Gallery and select Spotlight options. Operator Screen Shares as required.

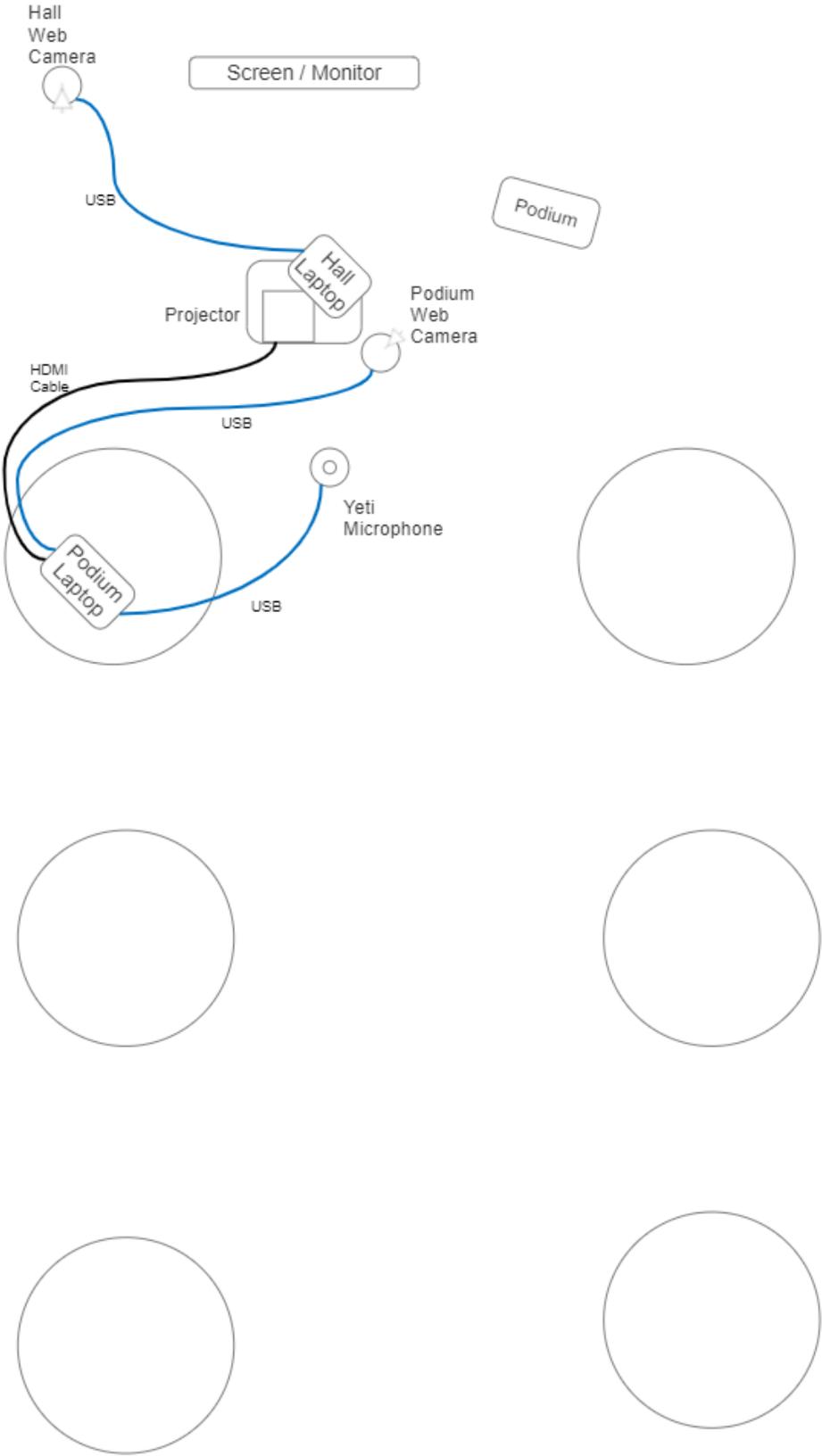
iv) Operator can adjust the Yeti input on the UR22C to the noted position during activities such as Happy Bucks, group discussions or question sessions to increase Zoom experience for instances where members do not use a microphone correctly.

- E) Operating **b) PA, large room, with podium user operating Zoom in room**
- i) Audio test same as Operating a) PA, large room, with dedicated in person Zoom operator
 - ii) Video Testing
 - (1) Webcam same as Operating a).
 - (2) Recommend use Duplicate Displays in Display Setting, with room display above laptop display.
 - (3) Recommend that default view be Hall and Podium Spotlighted, and room view set to Gallery.
 - iii) Presentations are Screen Shared and run by presenter. (Typical for Zoom)
- F) Operating **c) No PA, with dedicated in person Zoom operator**
- i) Testing audio
 - (1) Using Podium laptop, in Zoom, select the up arrow beside the microphone icon, select 'Audio Settings...' ensure that the Speaker is set to the appropriate item (Projector / monitor/ System Speakers) and the Microphone is set to the Yeti microphone, close window. Then select the up arrow beside the microphone icon, select 'Test Speaker and Microphone...'
 - (2) Zoom will then play tones at a standard level to the speaker. Adjust the level to an appropriate level for the room. When satisfied with level select 'Yes'.
 - (3) Zoom will now record what it hears on the microphone (Yeti mic) and play it back when it hears silence. Set the level for the Yeti from various areas of the room, and select 'Yes' and 'End Test'.
 - (4) Check a presentation or video on the Podium Laptop for levels. Ensure the volume in the application playing the audio is set high (7-9) and computer speaker levels are also 7-9. If results are not appropriate you can adjust speaker volume in Zoom 'Audio Settings...' and test.
 - ii) Video same as Operating a) PA, large room, with dedicated in person Zoom operator
 - iii) Operator can Spotlight Hall, Podium and Zoom users to produce the best results for all. The Podium user can only be Spotlighted by right 'clicking' over the image in the Gallery and select Spotlight options. Operator Screen Shares as required.
- G) Operating **d) No PA, with podium user operating Zoom in room**
- i) Audio test same as Operating c) No PA, with dedicated in person Zoom operator
 - ii) Video same as Operating b) PA, large room, with podium user operating Zoom in room
 - iii) Presentations are Screen Shared and run by presenter. (Typical for Zoom)

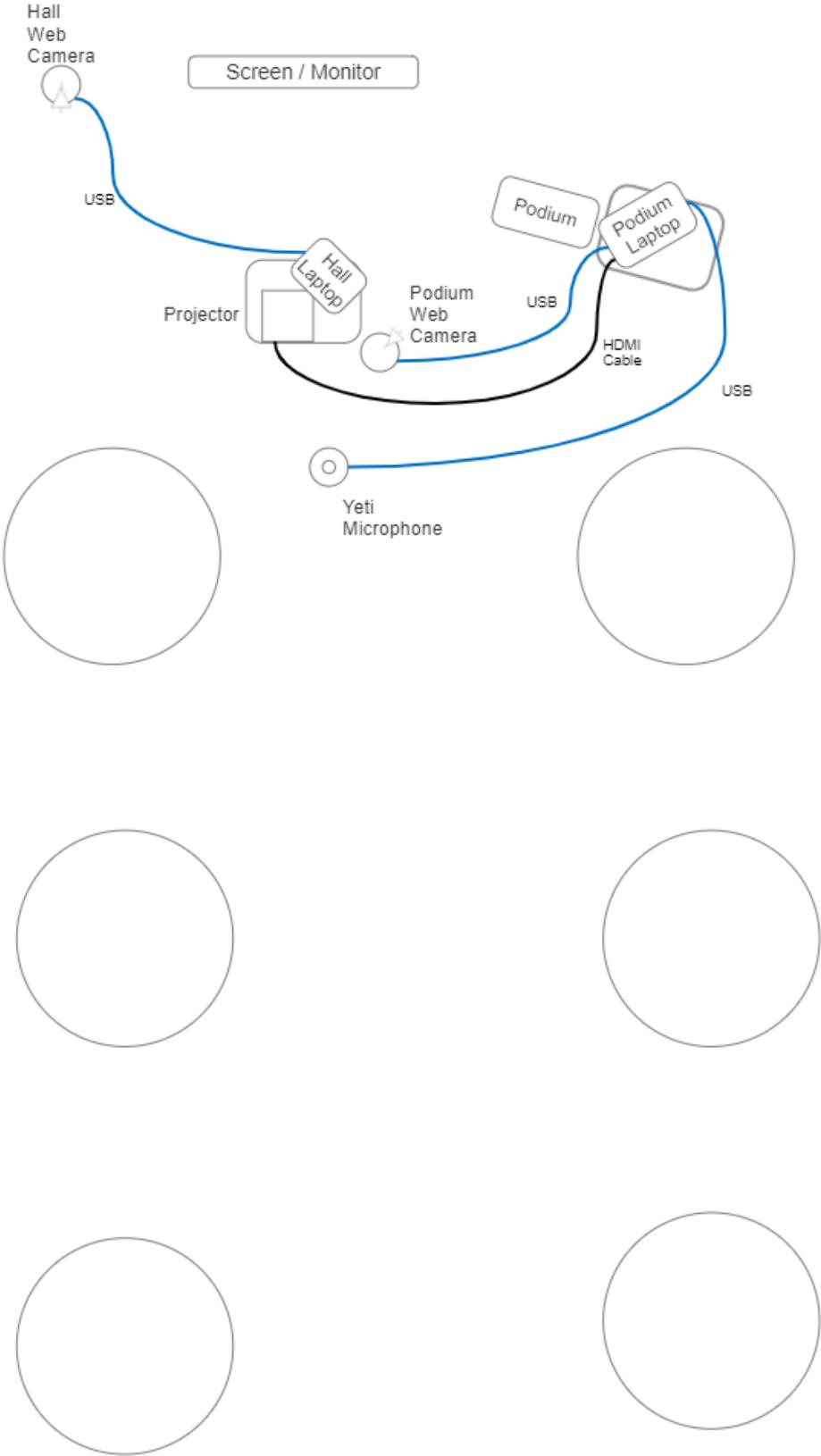
a) PA, large room, with dedicated in person Zoom operator



c) No PA, with dedicated in person Zoom operator



d) No PA, with podium user operating Zoom in room



Guide to Expenses to Conduct Hybrid Meetings

No Public Address System – Room with good acoustics

- A. 2 Laptops: Many clubs pre-COVID had one laptop, new laptop ~C\$700
- B. LED Projector & screen or large monitor & HDMI cable – Probably existing \$0.00.
- C. 2 Webcams (USB) wide angle (~120 degrees) C\$70/ea. 2-C\$140
- D. Blue Yeti USB Microphone (or equivalent) C\$120 (Staples)
- E. Tripods or microphone stands C\$60/ea. 3 – C\$180
- F. 20' USB extension cables C\$21/ea. 3 – C\$63

Total additional expense, if required to purchase all of above, C\$1,200

Public Address System, large room added expenses (add following items)

- G. Steinberg UR22C USB 3 Audio Interface (or equivalent) ~C\$220
- H. 3 balanced audio cables C\$25/ea. 3 – C\$75
- I. USB 4 port hub for Podium laptop (optional) C\$20

Addition expense C\$315

Total Expense for PA solution if required to purchase all of above, C\$1,515