

How to build a homemade visualiser (a cross-platform solution for Android or iOS phones)

This short guide aims to take you through the steps for how to build a table-top visualiser at home, using any mobile phone. This setup will use a second Blackboard Collaborate guest user to share the camera video from your mobile phone suspended above your drawing surface.

Requirements

- Any **iPhone** or **Android** phone and its power charger. You could also use the camera from a tablet device, although this may be harder to suspend above your drawing surface.
- A laptop connected to a power source, or a desktop machine.
- A means to secure your phone with its rear camera pointing over your drawing surface.
- You may need a power extension cable to your work area, and additional lighting.
- **[Recommended]** High-contrast pens, such as felt-tip or very black "uni-ball" pens.

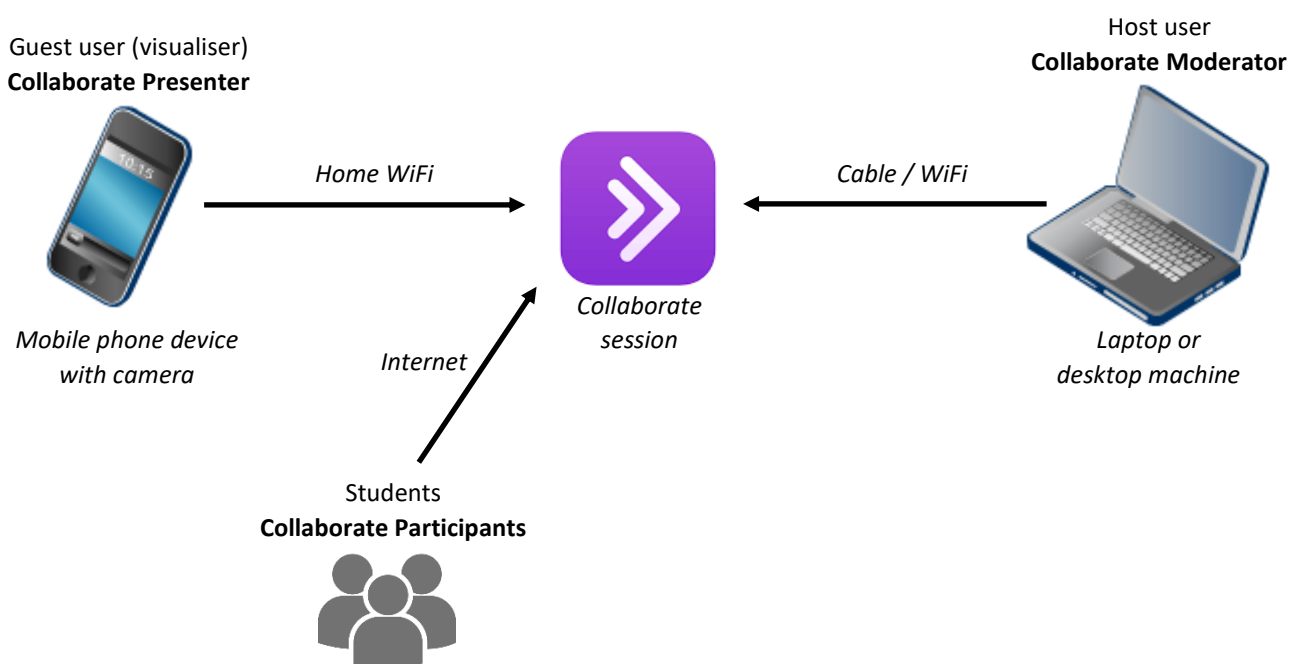
How does it work?

Your mobile phone will act as the visualiser camera. This will need to be securely positioned above your drawing surface.



A Blackboard Collaborate guest user will be launched on your mobile phone and given the presenter role with video and audio enabled. Participants will see whatever is under the camera of your mobile phone.

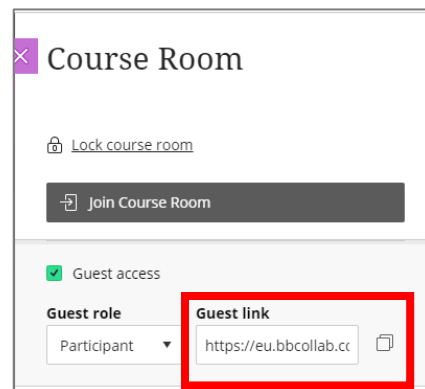
When presenting, speak into the microphone of your mobile phone. The speaker and microphone on your laptop/desktop will need to be muted to ensure there is no audio feedback.

Collaborate user setup



Home visualiser setup

1. From the Blackboard Collaborate Session list page in your course unit, select the session you want to run your mobile visualiser in. Copy the **Guest access link** for the session and email this to an email account you can access on your phone.
2. On your mobile phone, open the Collaborate Guest link from the email to launch Collaborate into your mobile phone web browser. Register your guest name as something meaningful to you, such as **“Your Name (visualiser)”**.
3. Returning to your laptop/desktop, join the Collaborate session as a moderator and promote the second (mobile) user to have the **“Presenter”** role.
4. You should also **mute** your laptop/desktop audio and **do not** enable the laptop/desktop microphone in the Collaborate session. This is because you will use the microphone on your mobile phone and you need to avoid an audio feedback loop between your mobile and laptop/desktop.
5. On your mobile phone, select the **“Share video”** icon  to start up the camera on your mobile phone. Also select the **“Share audio”** icon  to enable the microphone on your mobile phone. This is because your mobile phone microphone will be closest to where you will be presenting.
6. Now **build a support frame** for your camera to be positioned above your drawing surface. You will need to ensure that your phone is the right height above your drawing surface so that the A4 paper just fits within the video image, as you will not have any control over the zoom level on your mobile camera.



You will need to be creative – use small tables, kitchen equipment, Lego, anything to secure your phone above your writing surface (A4 paper). Take care not to clamp your phone so tightly that it scratches or breaks it, or so loosely that it can easily fall out if the setup is knocked.

You will also need to ensure the **phone charger** is plugged in to your phone as the video broadcast will drain your phone’s battery very quickly.

Your phone support will also need to be placed **next to your laptop/desktop machine** so you can communicate with your students at the same time as driving the web conferencing software.

In this example setup, a few boxes have been used to set the height of a strip of wood from which the phone is suspended using soft Velcro straps. Add additional lighting (a desk lamp) if required.

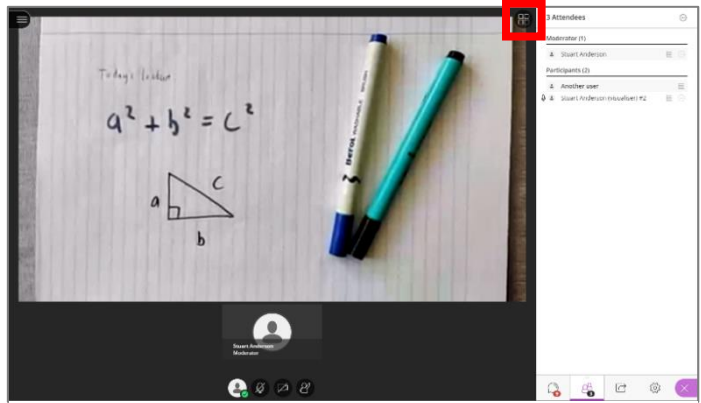


7. To use the visualiser during a lecture, tutorial or presentation recording, all you need to do is set the current presenter in Collaborate session to be the guest user on your mobile phone and the camera feed from your mobile will be shared with the audience.

If you are presenting to a *live* audience, instruct your participants to select

"**Follow the speaker mode**" icon  in

the top-right of the presentation area to the switch their Collaborate layout view. This will make the presentation video from your visualiser much larger and therefore easier to see text and drawings.



Visualiser presenting while viewing in "Follow the speaker mode"

It is strongly recommended you use high-contrast pens such as felt-tip or very black "uni-ball" pens to help your viewers clearly see what is written or drawn.

Remember that if you switch the presenter away from the visualiser on your mobile phone, you may need to change your audio settings on your laptop/desktop (unmute audio and enable the microphone).

8. Finally, when your session is completed, select "**Leave Session**" on both your mobile phone and laptop/desktop.

Important note:

When using the "**Share video**" option in Collaborate the video resolution (quality) is lowered to help with performance. This means that your visualiser video won't be as sharp as you are used to when using dedicated visualiser equipment. You may need to write larger than normal and use thicker or stronger contrasting pens to help your viewers see what you are writing/drawing.

Other methods of creating a visualiser for Collaborate are possible where the video is shared via the "**Share Application/Screen**" option. This usually results in *better* quality video assuming you have a reasonable quality camera on your mobile phone to begin with. Other support guides may be available to help you set this up (depending on your phone type), but such setups depend on you having a reasonably good quality phone to cope with the extra performance demands. Contact the FSE eLearning team for further advice on this.