Tech Vision XR 2018 Setup and Operation Guide
Wired Version

Video Presentation:

Please watch this video for an overview of the Technology Vision XR 2018 presentation: [Yves Bernaert presenting TVXR](), it shows the full size "stage" version, which is ideal for large venues and stage presentations. The tabletop version - 50% size is best suited for smaller rooms. However, the presentation flow and required equipments are identical in both versions.

Tutorial Video:

[Marco Tempest behind the scenes of TV/XR]()

Shopping List:

Please have these items ready before receiving the Tech Vision XR 2018 app:

1. Unlocked [iPhone 8 Plus]() (TechVision XR is pixel perfect for **iPhone 8 Plus only**, older versions of iPhones will **not** work), (for public and client events an additional second backup iPhone is recommended).
2. [Gimbal]() (optional but highly recommended) for smooth camera movement
3. Balancing/ mounting accessories. The above gimbal is designed for camera use, you will have to use a small counterweight to properly balance. These are the parts we use:
   - [Beast Grip]()

- Small Counterweight attached with ¼ inch screw
- Cable Stopper

4. Print this Vinyl tracking target (122 cm diameter) on Vinyl non-glossy banner material. Use your local printing service provider.
5. HDMI adapter
6. Accompanying HDMI direct cable connection. We recommend a unidirectional high quality flexible cable that is tested for the required length based on your venue, for example this cable.

Other things you need:

Items to be provided by your A/V company or by yourself depending on your presentation environment and venue (see technical rider for reference):

1. Someone trained to operate the Tech Vision XR 2018 app
2. Audio de-embedder required if your AV setup does not support direct playback of the embedded audio in the HDMI signal.
3. A short round table (120cm diameter) if you planned to present the tabletop version.

Obtaining the app:

1. Setup your new iPhone 8 Plus as requested by the phone, you might need a SIM card for the initial setup, remove the SIM card after the new phone has been set up.
2. Send us the your device's UDID, you can locate the UDID by following these steps here
3. The app will be ready for you within 24-48 hours. You will receive a link and a QR code to install.

Initial Setup (after you received the app download link/ QR code):

1. Connect your iPhone 8 Plus to a WiFi network.
2. Open the camera app on your iPhone 8 Plus, and point to the QR code.
3. Tap "Open in iTunes", then tap "Install" to install the app.
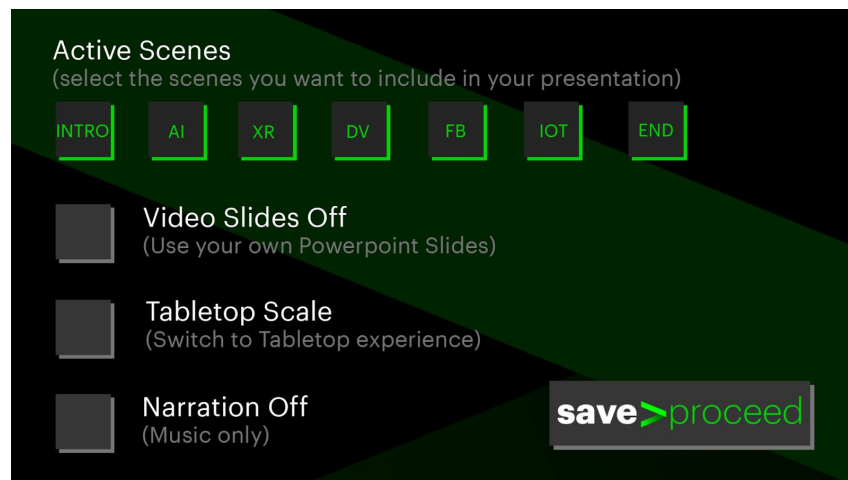4. Once download is completed, go to your WiFi setting and "Forget this network".

Presentation Setup (this part also serve as a checklist to prep your device for presentation):

1. Make sure the iPhone 8 Plus is:
    a. 100% charged
    b. No SIM card installed
    c. Airplane Mode on
    d. Bluetooth On
    e. Portrait Orientation locked On
    f. WiFi **enabled but not** connected to a network
    g. Mute button OFF (on the left side of the phone)
    h. Auto-Lock mode set to Never (go to Settings/ Display & Brightness/ Auto-Lock/ Never)
    i. No other apps or other version of TVXR are running in the background
    j. Do not install any other unrelated apps

2. Gimbal and wire setup:
    a. Mount the Beast Cage on to the gimbal
    b. Mount iPhone 8 Plus into the grip
    c. Balance the phone on the gimbal (use the counterweight where needed), once balance is achieved, you can keep the Beast cage and counterweight attached so you don't have to re-assemble it everytime.
    d. Connect the HDMI adaptor to the HDMI cable
    e. Connect the HDMI adaptor to the iPhone 8 Plus
    f. Secure the HDMI cable with the cable stopper
    g. Connect HDMI cable to your display screen

3. Follow the steps in this video:
   a. Turn on iPhone 8 Plus
   b. Check if the video and audio are transmitted as expected
   c. Stand about 2 meters away from the carpet edge
   d. Start the Tech Vision XR app
   e. Select the desired scenes and options

   f. Point camera to the floor to start initial tracking (no swipe needed) and slowly pan around the floor

   h. Slowly walk and point camera toward the tracking target

i. Once the tracking marker is acquired, a set of green numbers will appear on screen bottom (see video at 2:31)

j. Swipe left to confirm correct location of the target (see video at 2:36)
k. Keep watching the video and follow the steps
l. Have fun with it and enjoy the reaction of your audience :-)
m. **Important!** Properly exit the TVXR app after each use.

Tips for common stage issues

1. If the floor has very little pattern (ex: solid dark carpet floor), place pieces of color tape on the floor to help the camera track and make sense of the space.
2. Spike the stage:
    a. Mark the position and orientation of the carpet's placement with tape.
    b. Mark the positions of the presenter.
3. Rehearse TVXR in the exact conditions (lighting & flooring) as it would be during the presentation.
4. Ask the stage tech crew of provide you even, soft, and bright lightening, this can improve the camera tracking.
5. Once TVXR works well with the tested stage light setting, ask the tech crew to provide the exact same lighting condition during the presentation and not make any changes.

Tech Vision XR 2018 FAQ

1. **What is Tech Vision XR?**
   Tech Vision XR is an iPhone app developed to present Tech Vision 2018 in augmented reality, there are 2 sizes within the app: 1 is full size version, and the other is smaller (tabletop) version. It requires a two person team:

   1. The presenter trained in presenting the Technology Vision 2018
   2. The operator to: Setup the app and equipment, operate the AR camera, trigger the scenes and video transitions
   3. (Optional) If a teleprompter is required you will also need an experienced teleprompter operator

2. **What do I need to get started?**
   Refer to the shopping list for requirements, refer to the Tech Vision XR technical rider and talk to your local A/V team to be sure your venue or conference room is ready to host Tech Vision XR 2018.

3. **Tech Vision XR supported devices and OS requirements?**
   The Tech Vision XR app is optimized and pixel perfect for **iPhone 8 Plus only**, the visuals are designed and scaled based on iPhone 8 Plus aspect ratio. Please purchase a brand new iPhone 8 Plus for presentation use only (even if you have an existing device), this can lower the risks of disruptive pop ups (messages, notifications, carrier settings update) during presentation. Older versions of iPhones **will not work** because the app requires iPhone 8 Plus' superior processor to run the app smoothly. TechVision XR supports iOS 11.3 or above.

4. **What is the ideal environment for the tracking?**
   Non reflective floor with pattern, even and bright lighting, and tracking target which is printed on matte and non reflective material.

5. **How much space do I need to perform Tech Vision XR 2018?**
   The full size or "stage" version requires 4-5 meter space from the tracking target so that the operator has enough space to move and fit in all the visuals to the frame. The smaller 50% "table top" sized version requires half of that space.

6. **I cannot obtain the tracking.**
   Point the camera around the floor and pan around slowly so the device can learn the space, then slowly point to the target. This method should provide an very good initial tracking that will be used throughout the presentation. It is also possible to do an intermediate re-tracking while the app is in the "video use-case mode" by pointing the camera directly at the target.

7. **The tracking is misaligned.**
   Frame the target as close as you can without cutting off any parts, cover the camera with your hand for a second, uncover the camera, it will try to re-align the target. This might take several seconds.

8. **The target is lost during presentation.**
   Walk closer to the target, re-obtain the target by pointing the camera to the target, no swiping is needed.

9. **How long does the operator has to practice?**
   The more the better! We recommend the operator to practice 10-15 times to learn how to use the gimbal, familiarize with the visuals, framing and flow of Tech Vision XR.

10. **How long does the operator and the presenter need to practice together?**
    The more the better! It depends on how experienced the presenter and the operator are, as well as if the presenter has access to video output and prompter. We recommend you to practice together at least 5 times, to develop positioning in relation to each other, how to interact, cue each other, and how to simulate interaction with the visuals.