Thermovision

See the heat

FOR TECH-SAVVY EXHIBITORS WITH ACCESS TO A LARGE TABLET THAT CAN CONNECT TO YOUR INSTRUCTOR'S THERMAL CAMERA

Materials
___Large tablet (the bigger the better)
___FLIR One Edge*
___FLIR One app installed on mobile devices
___charging devices and cables for the camera and the tablet

___ice cubes (small cooler + plates)
___warm water (Thermos bottle + cups)
___other: hand warmers? black plastic trash bag? what else? experiment with things to find groovy things and include them in your notes to the future

**Your instructor has one*

Introduction
Thermal imaging camera can show surprising things. These instructions are for those using a FLIR Edge or Edge Pro thermal camera. Modify as needed to accommodate other cameras.

Assembly
Turn the thermal camera on and connect it to the large tablet using the FLIR One app. My FLIR Edge Pro connects wirelessly to my 12.9" iPad Pro, for example. Keeping the camera and the tablet throughput the exhibition will require continuous charging.

Explore the app: toggle temperature display/s, choose from among the color palettes (Contrast, Rainbow, and Color Wheel are fun), toggle the display between full, thermal, and visual images, adjust the image calibration so visual and thermal images align.

To Do and Notice
1. See yourself in thermal imaging. Faces and hands are nice subjects. Glasses (or sunglasses) are fun. Make a thermal handprint on a nearby table and observe the residual heat after your hand is removed from the table. Can you see thermal through a black plastic bag?
2. Do things with ice and warm water. Hand warmers?
3. What else looks groovy? (Transparent glass acts like a thermal mirror.)

What's Going On?
Research thermal cameras to find out how they create visible images from infrared radiation. The FLIR Edge combines the thermal image with visible light image.