Showing video to screen

In this lesson we are going to use some of the capabilities of the Kinect to show video on the screen.

Tasks:

- To do this we need to use a library. Libraries are external code that we can use in our projects. We will learn more about these later. **To get the library we need you will select "Sketch → Import Library… → Kinect V2 for processing". Do this now in a new sketch.** You should see this.

```
import KinectPV2.*;
```

- Next we are going to create an object. An object is like a variable so we have to declare it at the top. **Write the code below under the previous line.**

```
KinectPV2 kinect;
```

- **Add in void setup(), void draw() and size as normal.**

- Because an object works slightly differently from a variable we have to initialise it in a different way. **Initialise the kinect object in void setup() using the code below.**

```
kinect = new KinectPV2(this);
kinect.enableColorImg(true); //This enables normal video
//We can enable more modes here, we will see this later
kinect.init();
```

- Finally to draw the image we use the image function. **Use the code below to show an image to the screen.**

```
image(kinect.getColorImage(), 0, 0, width/2, height/2);
```

- **Change the numbers in image to see what they do.**

- The kinect can also output a black and white image that depends on the distance from the camera. **Add in the following commands, "**kinect.enableDepthImg(true);" and "image(kinect.getDepthImage(), width/2, 0, width/2, height/2);" **in your sketch. (NB: You can figure out where these lines go based on what you already have)**

- The kinect can output more than just those two types of images. **Add at least one more of these video types to your sketch.** Here is the code you need. Look at the previous examples to see where to add them.

  kinect.enableBodyTrackImg(true); → kinect.getBodyTrackImage()
  kinect.enableDepthMaskImg(true); → kinect.getDepthMaskImage()
  kinect.enableInfraredImg(true); → kinect.getInfraredImage()

- **Hint:** The kinect is usually looking for a person standing in front of the camera, so when testing what each of the commands do stand about a meter away from the camera and see if anything changes.