**Supplemental document-** The HABscope has an ipod attached to the eyepiece of the microscope. Volunteers use an app on the home screen to capture a video of the 20mL of beach water they collected. That video is uploaded to the GCOOS website and is analyzed by an alogrithm which will enumerate the number of Karenia brevis cells in the sample. The number of cells are then fed into a respiratory forcast that is available to the public so they can avoid respiratory irritation at affected beaches.











Below is an internal webpage at habscope.gcoos.org where videos are analyzed and enumerated into cells/L. This is not available to the public.

