Scanning dynamic water surfaces using a Kinect game console controller as a sensor

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In hydraulic research it is often informative to know the exact shape of an entire water surface. Measuring the entire water surface has always been costly. With the introduction of the Kinect game controller, structured light 3D scanners have become available to a broad public. Although the sensor is designed to be used with the Xbox game console, this research shows that it can also be used to scan water surfaces.
Interfacing with the sensor is done using the Processing environment and the libraries made by the community at http://openkinect.org