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NATURAL USER INTERFACE SENSORS FOR HUMAN BODY MEASUREMENT

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Abstract. The recent push for natural user interfaces (NUI) in the entertainment and gaming industry has ushered i
new era of low cost three-dimensional sensors. While the basic idea of using a three-dimensional sensor for huma
gesture recognition dates some years back it is not until recently that such sensors became available on the mas
market. The current market leader is PrimeSense who provide their technology for the Microsoft Xbox Kinect. Since t
sensors are developed to detect and observe human users they should be ideally suited to measure the human bo
We describe the technology of a line of NUI sensors and assess their performance in terms of repeatability and accur
We demonstrate the implementation of a prototype scanner integrating several NUI sensors to achieve full body
coverage. We present the results of the obtained surface model of a human body.

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