

Trireme Game Using Accelerometers

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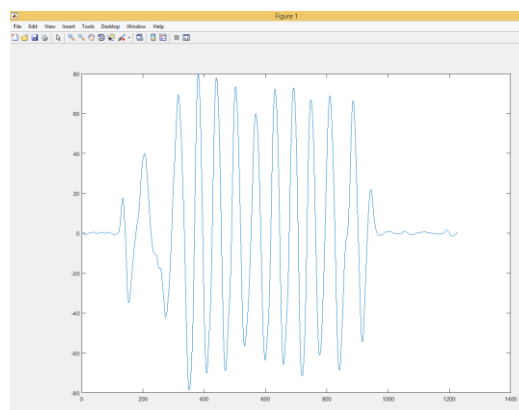
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ABSTRACT

This project aimed to create a 3D game which emulates a person or people rowing on water. The project originally planned to include multiplayer aspects, however this was quickly removed from the specification as it was felt the rowing model could be represented well enough with a single player. A game was created in the UNITY engine, using the X-IMU accelerometers. A basic model of rowing was created, and the input from the accelerometers was fit to that model. This produced behavior that represented an oar moving through the water, and could control a boat using it. This project could be linked with FES rowing in the future to help with their research, as well as providing exercise in a fun and challenging way.



2. Image of Sculling Machine Used In Project



3. Image Showing Polyfit position data in X-axis while rowing

Casey Singlehurst, Trireme Game Using Accelerometers, *Proc. 13th School Conf. for Annual Research Projects*, V F Ruiz (Ed), pp. xx–yy, University of Reading, 3rd June 2014.