ABSTRACT

Along with advances in computing technology, human life is very closely related to the computer. Therefore, developed the study of the interaction between human and computer or better known as the Human-Computer Interaction (HCI). HCI is a part of computer science that studies about the design, evaluation, and implementation of interactive computer systems for humans along with other matters related there.

This bachelor's thesis has designed a new interaction between humans and computers, especially in the field of game software. The introduction of motion-based accelerometer (accelerometer-based gesture recognition) as a controller in software. For that we used Memsic 2125 Accelerometer as a low-cost interaction devices to recognize the movement. This accelerometer will provide data acceleration in 2D space (axis x, y) which can then be used to identify the movement.

As for this game software is built using open-source processing. Processing is a programming language and programming environment (development environment), an open source to program images, animation and interaction. The gesture recognition at this final project is only limited to four: right movement with the percentage of 94% accuracy, move left 90%, 91.33% of motion forward and backward motion of 93.33%.

Keywords is accelerometer-based gesture recognition; Memsic 2125 accelerometer; Processing.