DESIGN AND BUILD VIRTUAL WRITING BOARD
APPLICATION USING LEAP MOTION

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Abstract

Leap Motion is a new tool that bring touchless interaction method between human and computer. This method, as well, could be implemented in software building. One of the usage is the creation of virtual writing board that use Leap Motion as the main input operating device. This writing board is mainly focused in gesture - user will do the writing in the air and whatever written will also appear in computer screen.

This application is built using precompiled library provided by Leap Motion Inc. The programming language itself written in C# with Windows Form technology that has been modified beforehand focused for touchless interaction. The design will mainly targeted to Ramer-Douglas-Peucker line smoothing algorithm, writing lines with touchless interaction, building controls for touchless interaction, and a new method to write using Handwriting Board for writing assistance.

Leap Motion itself is a new device, hence the development still running and being developed gradually from the developer. There will be some minor issues such as false reading, bright light incompatibility, low effectivity, or some features that will be deprecated or missing in future updates. I, as writer of this book, will do the best to create an application that will show the potential
of Leap Motion generally and the potentiality of Leap Motion as writing device specifically.

Keywords: Leap Motion, Writing Board, Human Computer Interaction, Latest Technology, Touchless Interaction.