FACULTY OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE

CS 401

2019 Fall

SENIOR PROJECT PROPOSAL

In Virtual Reality Environment Disabled Arms Training

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Objectives

- To implement hand and finger tracking and physics into the game engine as a tool by using Leap Motion
- To apply a virtual reality environment for arm training.
- To evaluate the effectiveness of environment.

Resources and Tools

- There are game engines which are compatible with virtual reality (VR) development. For this project Unity3D will be used. The engine is free to develop, which is available at https://unity3d.com
- Leap Motion will be used for hand and finger tracking camera.
- HTC Vive Pro will be used as virtual reality device that projects virtual environment to the user.

Method

- As the first step, leap tool will be implemented into the engine. After the implementation, new tool created for physics of hands and fingers of the user and tested by volunteers.
- In the second step, arm testing environment will be created and tested for user interactions.
- In the third step, evaluated tool will be ready to work in the virtual reality environment.

Project Advisor's Approval

Name   **:** Furkan Kıraç

Signature   **:**

Date   **:**