PERCEPTION NEURON GAME EXAMPLE MANUAL

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INTRODUCTION

This document provides an overview over the Perception Neuron Game Examples and how to operate the demo. The demo is intended to be used with HTC Vive or Oculus CV1 VR systems and the Perception Neuron motion capture system. If there is optical tracking available the demo will make use of it. The primary purpose of the demo is to provide different examples of what is possible with real-time motion capture data in a virtual reality environment.

STARTING THE DEMO

Before starting the demo make sure you are wearing the Perception Neuron either in full-body mode or single-arm, right hand mode. These two modes are the only ones supported by the demo. See in the "Examples" chapter for more details.

USING THE DEMO

The demo provides simple floating UI buttons which the user can touch with his hand. Touch any button long enough for it to charge-up to confirm the selection. If the position or orientation of the user is wrong, he can press the key "R" on the keyboard to reset the position and orientation of the tracking data from Oculus or Vive. Doing a thumbs-up gesture and holding it long enough will also reset the tracking pose.

THE TUTORIAL

The tutorial scene guides the user through the usage of the interaction system. Every new user should do it at least once.

THE EXAMPLES

The demo features a total of 4 different usage examples. Each one demonstrating a different way to use the real-time motion capture data from Perception Neuron.

HAND EXAMPLE 1

A simple game example in which the user has to knock off a tower of metal cans placed on a table by throwing pinecones at them. If the user manages to knock all the cans off the table with the limited amount of pinecones available then the game is won.

HAND EXAMPLE 2

Various barrels are floating in a river in front of the user. If a pinecone goes into a barrel the user is awarded with points. The further away the barrel is, the more points are awarded. A limited number of pinecones to throw limits the total possible score. How many points can you get?

HAND EXAMPLE 3

The user is free to play around with a number of different wooden shapes like a block, cylinder, rectangle or pyramid. Stack them to a big tower or smash them into the river. It's all up to the users choice.

FULL-BODY EXAMPLE

This scene requires the user to wear the full-body Perception Neuron system. Both 18 or 32 sensor configurations are ok. The user is given a soccer ball which he then can kick into a goal.