

Homework 1 for Einstein group

William Harrington, David Hernandez, Waleed Alhaddad
ECE478

November 17, 2015

Introduction

This report contains a detailed explanation of the homework 1 assignment for the Einstein group.

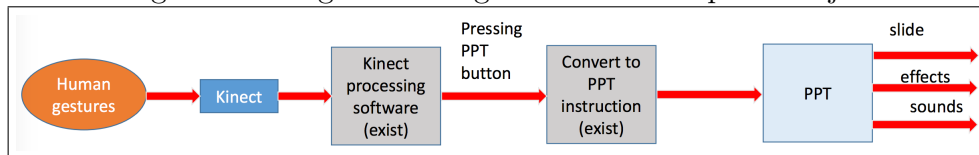
Learning Outcomes

The purpose of this homework was to fulfill the following learning outcomes.

1. Use of Kinect to control a robot, to create commands and data for a robot.
2. The concept of state machine in robotics
3. The concept and use of fuzzy logic in robotics
4. Using Powerpoint for scenario prototyping
5. Dialogs with robots

First phase explanation

Figure 1: A high level diagram of the first phase objectives



The objective for the first phase of this homework was to:

1. Figure out how to use a Kinect to control the mouse on a computer
2. Figure out how to use Kinect to control a powerpoint presentation
3. Create a powerpoint presentation with info, effects, figures, pictures, and videos about Einstein and the "Quantum Debate" play
4. Record voice with German accent that is suppose to be Einstein for the powerpoint presentation

1. **Software to control mouse and powerpoint presentation with Kinect:**

[https : //kinectmouse.codeplex.com/](https://kinectmouse.codeplex.com/)

2. **Software for interacting with robot and powerpoint:**

[https : //github.com/wrh2/ECE478/tree/master/Einstein](https://github.com/wrh2/ECE478/tree/master/Einstein)