CSEE5590-0005/490-0005

IOT / Robot Programming

LAB ASSIGNMENT # 4

Lesson Title: Integrating IOT platform with NAO Robot

Lesson Description: Create a dialog-flow system with NAO Robot and explore ways to Integrate your project with NAO Robot and report if any failures or success in the attempt.

Team 1: Ahmed, Cameron, Marajan, Syed Jawad

Contributions:

All the team members contributed equally to this task. Ahmed and Cameron worked on the coding perspective, whereas some internal Nao robot flows and motion activation paths were created by Jawad and Marajan. All the team members contributed equally to the wiki creation.

Lab Report:

In this lab assignment the task was to make an interface with Nao Robot that consist a dialog-flow system and to also integrate some functionalities with Nao Robot. The goal is to create a dialog-flow system with Nao robot and ask some questions from the Robot and the robot should reply and ask Robot to perform some functions or task for you and the robot should act upon.

In this assignment we used virtual Robot because the original was not available. The point to notice is that not all the functionalities and operations of Nao robot computer interface are compatible with the virtual robot. As a result, we were only able to work with few functionalities. In this assignment we have created and demonstrated a dialog-flow system with Nao Robot in which a human can say “Hello” to Robot and the robot replies back with “ Hello how are you”. Using this system, a user can also ask to a robot to retrieve some information. For example, in the video, that is attached to this report, it can be seen that the user has ask the virtual robot about the weather information and the robot has provided the relevant data about the weather back to the user. Below are the picture and video of this assignment:

**Youtube Link:**

[Nao Robot dialog system video link](https://youtu.be/gN7MRwMUluU)