Final Project Proposal

Team 4
b05902108 施承志
b05902036 夏瑜
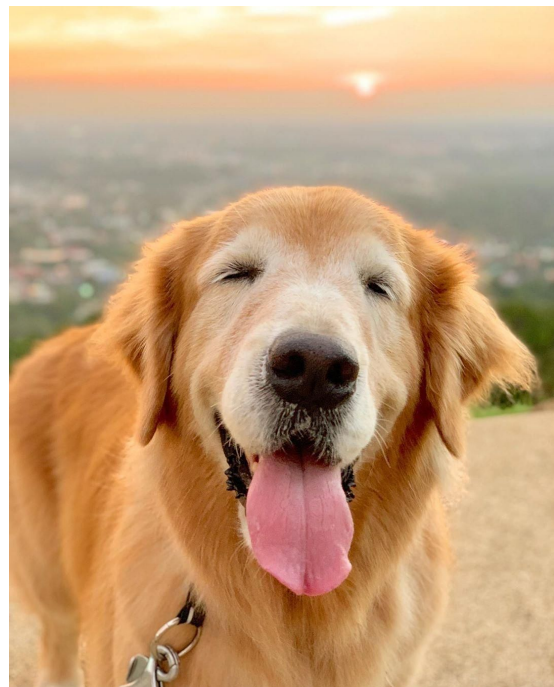b04502051 陳邦元

What

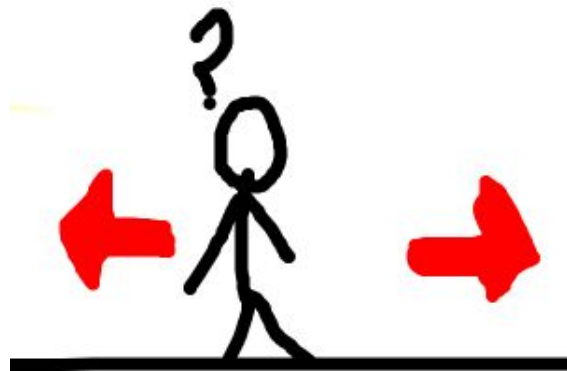We'll build an application on pioneer to achieve the followings:

1. Help people to **find the target location** they want to go
2. Guide people through the whole CS-building.
3. **Proactively** help people when they are in needs.

We call it CSIE-Retriver

Why

Sometimes, some people want to visit CS-building but they don't know **where bathroom or elevator is**. Additionally, lots of CS-students are **too busy studying to help those people out**. Therefore, with the aid of "CSIE-Retriver", newcomers can **immediately** find the target and furthermore, have a thorough understanding of CS-building.

How

- Hardware
  - Pioneer
  - Hokuyo URG-04LX-UG01
  - Realsense D435i
- Software
  - ARIA Library
  - ROS
    - ROSARIA
    - p2os
    - slam-gmapping
    - ...
- Simulation
  - Gazebo

When (Schedule)

11/18 ~ 11/24	setup environment for our pioneer (1)
11/25 ~ 12/1	setup environment for our pioneer (2)
12/2 ~ 12/8	survey speech recognition and natural language understandings
12/9 ~ 12/15	porting SR and NLP services on our pioneer
12/16 ~ 12/22	plan on how to guide people through CS-building
12/23 ~ 12/29	refine our works
12/30 ~ 1/5	add additional computer vision features (1)
1/6 ~ 1/12	add additional computer vision features (2)

Who

施承志：study topics mentioned, write codes
夏瑜：study topics mentioned, write codes
陳邦元：study topics mentioned, write codes