Project 2: Trash Sorting Robot

Brief

- Due: Thu, Sep 21 at 11:59pm on Gradescope
- Hand-in: through Gradescope
- This project has **two** parts:
    - Part 1: Coding Assignment (Deliverable: *project2.py* on Gradescope)
    - Part 2: Report (Deliverable: Project 2 - Report on Gradescope)

Getting started for Part 1

The project2.ipynb notebook to be completed is available on Canvas->Files->Projects.
In order to use a file as your own:

1. Download the file to your computer
2. Upload the notebook to Google Colab (File > Upload Notebook)

Submission Instructions

In order to submit a file, once you complete the project:

1. **Comment out all the !pip install statements before submitting to Gradescope** - also indicated where necessary.
2. Click the “File” button on the toolbar at the top
3. Click “Download,”
4. And then click “Download .py”
5. You will now have the .py file on your local machine.
6. Make sure it is named `project2.py`
7. Submit the `project2.py` file to Gradescope (Make sure the **file name matches exactly**, otherwise Gradescope will not accept your file)

Introduction

- In this project, we will be building a (simulated) trash sorting robot as illustrated in the *Introduction to Robotics and Perception* textbook for this course.
- In this scenario, the robot tries to sort trash of some predetermined categories into corresponding bins.
- Please refer to Chapter 2 of the book for a more detailed description of the scenario. **This project is heavily based on Chapter 2 of the textbook. Please use the same values in the textbook for each TODO as also indicated where necessary.**
- This project also uses the GTSAM library. More details about this library and any relevant information can be found in Chapter 2 of the textbook.