**Getting Started**

**Download and save**

[pset2.zip](https://courses.edx.org/assets/courseware/v1/08474dca92f419fd79431242447f6230/asset-v1:MITx+6.00.2x+1T2021+type@asset+block/pset2.zip): A zip file of all the files you need, including:

* ps2.py, a skeleton of the solution.
* ps2\_visualize.py, code to help you visualize the robot's movement (an optional - but cool! - part of this problem set).
* ps2\_verify\_movement35.pyc, precompiled module for Python 3.5 that assists with the visualization code. In ps2.py you will uncomment this out if you have Python 3.5.
* ps2\_verify\_movement36.pyc, precompiled module for Python 3.6 that assists with the visualization code. In ps2.py you will uncomment this out if you have Python 3.6.
* ps2\_verify\_movement37.pyc, precompiled module for Python 3.7 that assists with the visualization code. In ps2.py you will uncomment this out if you have Python 3.7.

**REVIEW OBJECT ORIENTED PROGRAMMING AND CLASSES**

This and future problem sets will require you to know OOP. If you need a refresher, please [visit this link](https://greenteapress.com/thinkpython2/html/thinkpython2019.html) and make sure you are familiar with these topics.

* Implementing new classes and their attributes.
* Understanding class methods.
* Understanding inheritance.
* Telling the difference between a class and an instance of that class - recall that a *class* is a blueprint of an object, whilst an *instance* is a single, unique unit of a class.
* Utilizing libraries as black boxes.

**Note:**If you want to use numpy arrays, you should add the following lines at the beginning of your code for the grader:

import os  
os.environ["OPENBLAS\_NUM\_THREADS"] = "1"

Then, do import numpy as np and use np.METHOD\_NAME in your code.