Assignment 2

ITE 351 – Introduction to Artificial Intelligence

DUE: Oct. 17. *Submit in Class*

Programming Assignment (version 1)

You will install and manipulate a simple Python robots (Pyro). Your goal is to create a simple robot (or agent), a new room, and video showing that your robot is moving well.

Task 1. (50%) – Install the Pyro simulation environment.

Download the attached source code: pyrobot.tar.gz

Your environment should be able to host the following requirements:

- Server: PyrobotSimulation, Tutorial.py
- Robot: PyrobotRobot60000.py
- Brain: Avoid.py

Please refer to INSTALL document. Study it carefully.

Tips: I tried it on Windows, Mac, and Linux. So I confirmed that they are working fine on these platforms. If you are installing Pyro under Linux or Mac, you don't need all the configuration options. Try to disable unnecessary options (by trail and error). For Windows, you need to find a right software package for your Windows version. Again, read the instruction very carefully.

Task 2. (20%) - Create a new room environment with four+ walls and two+ corner boxes. Submit your .py file.

Task 3. (10%) – Create a new brain other than avoid and explain briefly what you are trying to do. Your robot should be avoid all the barriers and maximize the covering area in the room. If you can, count the all the location (coordinates) of your robots and report. Submit your .py file.

Recommendations: If you have a good idea, that's great. Otherwise, don't worry too much about it.

Task 4. (20%) – Record (screen video capture) your robot movements for 1 minutes and UPLOAD it to YouTube. Report the URL of your video. If you want to record your explanation in voice, please do so.

SUBMISSION:

1. Print out a source code your Task 2 and Task 3.

2. Print out a screen shot of Task 2.
3. Write one paragraph explaining your program and any difficulty/experience you had. (No less than 200 words)
4. Report the URL address of your video.

IMPORTANT:

Do your best. Even if you can't do the whole assignment, submit as much as you can (with explanation why you can't do this). And to make sure that you do your own assignment, I will randomly select a few students in class and ask them to explain their code.

TRIVIA:

Google is your friend and teacher. Search!

Discuss with your classmates! (DO NOT send me an email first)