Robot IO

• Assignment 3 – Robot IO: Due February 17 th , 6:00 pm – 20 pts.

• Create a Transport Robot class. Use inheritance to extend from your Assignment 2b Robot class

• For the Transport Robot class:

• Add member variables to this class that track the height, width and length of the main cargo hold.

• Add a new public method that calculates the cargo area

• Add an attractive print routine to the TransportRobot class that leverages the Robot print routine from 2b, but add on information about the cargo area (hint: use ‘super’ to access parent class methods with the same method name)

• Create a RobotIO class: This class will permit Robot information to be stored (and possibly retrieved) from disk

• Create a private ‘save’ method for writing/storing a single Robot to an open file (pass the Robot and open file as parameters)

• Add public methods to load() and save() all Robot instances to disk. For both methods, pass in a Robot list and a filename as parameters. Implement the save() feature.

• For all IO operations, use a try-catch() block to capture and print appropriate error messages

• BONUS (+5 pts ) Implement the load() method functionality and read the contents written by your save() method back into a new Robot classes. Can you recreate the original Robot instances? What about a Transport Robot class?

• Upload your .java files to Blackboard . You should archive/compress (.zip or .tar) up the entire src directory. Include a copy of your program’s output captured in a text file.

机器人IO

•作业3 –机器人IO：2月17日下午6:00 – 20分。

•创建运输机器人类。使用继承继承您的Assignment 2b Robot类

•对于运输机器人类：

•向此类添加成员变量，以跟踪主货舱的高度，宽度和长度。

•添加一个新的公共方法来计算货物面积

•在TransportRobot类中添加一个有吸引力的打印例程，以利用2b中的Robot打印例程，但添加有关货物区域的信息（提示：使用“ super”访问具有相同方法名称的父类方法）

•创建一个RobotIO类：该类将允许从磁盘存储（并可能检索）机器人信息

•创建用于将单个机器人写入/存储到打开文件的私有“保存”方法（将机器人和打开文件作为参数传递）

•将公共方法添加到load（）并将所有Robot实例保存到磁盘。对于这两种方法，请传入机械手列表和文件名作为参数。实现save（）功能。

•对于所有IO操作，请使用try-catch（）块捕获并打印适当的错误消息

•奖励（+5 pts）实现load（）方法功能，并将您save（）方法写入的内容读回到新的Robot类中。您可以重新创建原始的Robot实例吗？那运输机器人课呢？

•将.java文件上传到Blackboard。您应该将整个src目录存档/压缩（.zip或.tar）。在文本文件中包含捕获的程序输出副本。