Robotics Programming Module

This module is graded mostly on participation and problem solving. If you are a student that misses school often, your grade will reflect this as work can only be completed when you are present. This is a group project and when you are not in class or do not work as a group, everyone is affected. You may choose to work through another independent module instead. If you are very later finishing module 2, you may have to complete the independent module. Make good decisions. Make a plan. Break the project up into smaller tasks and assign roles to your group members.

You will be assembling and programming the ClawBot as your final project. We only have enough materials to make one which is why we need to work as a group. Your grade will be calculated as follows:

Inventory and Organization of Materials (Before and After) – 20%

* Before you begin any assembly, make a list of parts that you need.
* Pick through the tool box and put aside the pieces that you need (based on the guide on my weebly). Record how many of each piece that you will be using.
* At any time during the module, I should be able to open the tool box and find your materials organized. I will check routinely and what I find will be reflected in your grade.
* At the end of the semester, you must take everything apart, organize the pieces and complete an inventory.

Assembly of Robot – 20%

* At the end of the module, you should have a complete ClawBot assembled.

Programming of Robot – 20%

* At the end of the module, you should have a program code that will allow your robot to run.

Challenge (Creation of and completion of challenge) – 20%

* At the end of the module, your robot should complete a basic challenge that is designed by your group. You should be able to direct the robot, pick an item up, put the item down in a different place. The rest is up to you.

Problem Solving Journal OR Problem Solving Video Journal – 20%

* The group should produce a journal or a video journal which documents problems that they face and how they solve them. For example, one set of tires is running in the wrong direction. You would explain this problem with a clip of what is happening and then explain your problem solving and show a clip of the robot working in the way that you want. You can assign this task to a set of students, you can have a different person work on it each day, etc. At the end of the semester, I want a written journal or a video compilation handed in to be graded. Monty, Trace and Dmitri can help you with the overall project. Ask them when you have problems.

Participation will be built in to each grade. Basically, I will record who is working towards a goal each class. I don’t care how you assign tasks as long as everyone has something to work on AND the work is getting done. I will not be completing the tasks for you or telling you exactly what is wrong when your robot isn’t working. There is enough of you in the group that you can work together to get this to work. I will give you a participation grade each day. If you are on task for half the class, you get half the participation grade for the day. If you don’t come regularly, you get 0 on participation for those days. At the end of the module, I will find your total participation percentage (your participation total possible points) and you will get that percentage of the groups total grade. For example, if the group scores 90% on the project altogether but you only participated half the time, you get 45% on the module. NO EXCEPTIONS. If you feel like you cannot do well because of the group component and high value of participation, complete another individual module.