CS 444 - Project 1 - Stage 5

purpose

* The purpose of this stage is to:
  * read about some other `NXTRegulatedMotor` methods in the leJOS API
  * design and write a leJOS application class that causes your robot from Project 1 - Stage 3 to move in a manner of the team's choice (but also making use of at least one "new" method from the `NXTRegulatedMotor` class)
  * demonstrate your resulting leJOS application class to the class, describing at least one of the "new" `NXTRegulatedMotor` methods that you used

program specifications for Project 1 - Stage 5

* LOOK OVER the methods of class `NXTRegulatedMotor` in the leJOS API -- we will be discussing more about motors and how to make use of methods such as these, BUT as a team, you should be able to select at least ONE of these methods NOT used in `Moving1.java` to try out.
* As a team, decide on a sequence of motor actions and write a leJOS application class `Moving2.java` that meets these specifications:
  * make sure you call the `NXTRegulatedMotor` methods `forward`, `backward`, and `stop` at LEAST one time each;
  * call at least one `NXTRegulatedMotor` method **other than** `forward`, `backward`, or `stop` in such a way that it has an observable effect when your application class is executed;
    * INCLUDE the names of this/these additional methods in the class's javadoc comment;
  * make at least TWO method calls (your choice) for EACH of your robot's two motors before your program is finished;
  * You can display as much or as little on your NXT display screen as you like.
    * Want to do more than just `System.out.println`? Check out the methods in `lejos.nxt` class `LCD`, whose methods also output to the NXT display screen.
  * You are welcome (but not required) to use `Button.waitForAnyPress()` to, ah, control WHEN your robot does what (as, essentially, we did in `Moving1.java`).
  * as always, make sure you include appropriate javadoc comments for the `Moving2` class, its `main` method, and any other classes or methods you write
    * as always, the class javadoc comment should also include a `@version` line including the last modified date and an `@author` line including the name of all team members present during this stage
    * and, as always, the `main` method should include a `@param` line nothing that argument `args` is not used
    * (IF you write other methods within `Moving2` -- friendly advice: note that they would need to be `static` to be able to be called within `main` -- then in such a method's javadoc comment,

include a `@param` line describing each parameter (if any) and include a `@return` line describing what the method returns (if it is not a `void` method).)

    * as always, follow the class indentation coding standards and other style-related coding standards

* Compile and link your class, and upload it to your robot (and of course debug your class as necessary) until you are satisfied that it is successfully meeting the above specifications.

program approval for Project 1 - Stage 5

* Write your team name on the NEXT list on the white board.
* I'll look over your source code to see if it meets the course style standards, and CHECK OFF when it does so (if it does not, you will be expected to modify it **before** proceeding).
* Once your class source code has been verified as meeting the course style standards, you'll SHOW me your running program on your robot, and I will CHECK OFF that I have seen it running;
* Once your robot's running program has been checked off as demonstrated to me, one of the team members should SUBMIT your resulting `Moving2.java` on nrs-labs using `~st10/444submit` with a homework number of `15` (project 1, stage 5).
* Plan/practice your live program demonstration (see below).
* IF you are at this point, and ready for your live program demonstration, and other teams are still finishing Project 1 stages, ASK ME what your options are for what you should do next.
    * (Class time with the robots is too scarce for you to simply leave, unless the class session is almost over -- if you simply leave, you may lose some credit for this project stage.)

live program demonstrations to the class

* when all of the teams are done with Stage 5, EACH team will demonstrate their program running on their robot to the class,
* ...and EXPLAIN (one of) the additional method(s) from `NXTRegulatedMotor` that you used:
    * WHAT this method expects,
    * WHAT it does,
    * HOW you are using it in your `Moving2` class,
    * and WHY you chose to use it.
    * (EACH team member should explain at least ONE of the above aspects, so that all participate in this short live demonstration.)
* NOTE that PART of your project grade for this stage is behaving professionally as an "audience" member as well as participating in your team's live demonstration! This means:
    * paying careful attention to the each demonstration
    * NOT talking during the demonstrations
    * NOT web surfing or doing work or etc. during the demonstrations

...and now you have completed STAGE 5 of PROJECT 1.