



The Government of the Republic of Trinidad and Tobago  
**MINISTRY OF EDUCATION**



## **NIHERST Preliminary Robot Challenge**

### **HINTS and Suggestions**

- 1) Break up your program into multiple sections, each performing a different task and returning to the safe zone. In between each section you can reposition your robot inside the safe zone and press a button to start the next section.
- 2) Have multiple programs available on the competition day (each with a different name). You have 3 runs to get your best score. A good suggestion is to have a simpler program go for a smaller guaranteed score. Then try for a more advanced program for high points later on.
- 3) It's easy to get some basic points. Just pressing the seesaw (to push the wall garbage into the bin) and doing nothing else will gain you 216 points. Doing nothing at all will give you 96 points.
- 4) Before each match, make sure all the technicians know what they are supposed to be doing. The timer can't be paused, so wasted time can mean wasted points.
- 5) You can modify your robot during the match once it is inside your safe zone. So you can have a slightly different version of your robot performing different tasks on the field. (But remember the timer doesn't stop when you're doing this).
- 6) If you have multiple hardware designs to try for different attempts at the competition, make sure you can make your changes quickly. There will be a natural gap between each of your runs (at least 15 minutes) but once this time has passed you won't be given extra time if you haven't finished your alterations.
- 7) **BACK UP YOUR PROGRAM OFTEN** on separate flash drives. If your computer crashes or your file becomes corrupt, you don't want to lose all your work. Make sure to back up your program often and keep old versions of your program. It can also help to take a picture of your robot before you make hardware changes, in case you screw things up.



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- 8) You can use other parts not in the basic EV3 Kit. All parts must be made by LEGO with some exceptions (listed in the rules). [Please note that you can't use the EV3 IR receiver sensor, or any Bluetooth functions].



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