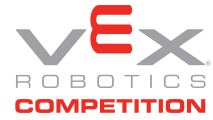




Clinton Bolinger
cbolinger@gmail.com
810.394.3273

Grand Blanc High School Robotics Team 2015 Programming Deliverable Deploy Default Code Challenge



Brandi Bolinger
bbolinger@gmail.com
248.249.1983

Mentors to ask if you have questions about this Challenge: Robin Barrie OR Sean Lynch

IMPORTANT NOTE: if you will be completing this task in the lunchroom, Team Members are required to sit so ALL laptop screens are visible from the lunchroom entrance.

Gather the following Materials:

1. Team Programming laptop with RobotC installed. (#2 Currently)
2. VEX Cortex Microcontroller with one 7.2V Robot Battery
3. VEXnet Joystick
4. 2x VEXnet USB Keys
5. 2 Motor Modules connected to MOTOR ports 2 and 3 on the VEX Cortex
6. 2 VEX Motor Controller 29 modules
7. 1 USB A-to-A Cable

Challenge Instructions:

You will be using one of the Team's Programming Laptops to complete this Challenge. We do not have enough licenses for Team Members to install our software on their computer(s).

1. Properly Pair a VEX Cortex with a VEXnet Joystick, using page one of the Cortex Microcontroller and VEXnet Joystick User Guide (attached)
2. Follow the attached "Downloading a Sample Programming" guide for instructions on how to download a sample program (aka deploy default code)
3. Downloading a Sample Programming tutorial, for your reference:
http://www.education.rec.ri.cmu.edu/products/teaching_robotc_cortex/reference/programs_over_usb.pdf
4. Cortex Microcontroller and VEXnet Joystick User Guide, for your reference: http://content.vexrobotics.com/docs/VEXnet_Cortex_UserGuide_081811.pdf

Engineering Notebook Entry Instructions:

Write an entry in your engineering notebook:

1. While you are working, and document your process
2. What problems or frustrations did you encounter while trying to deploy code?
3. Answer the following questions:
 - a. Did you enjoy this programming task? Why or why not?
 - b. What has this task taught you about programming that might help you, if you were a member of the mechanical or electrical team?
 - c. What do each of the LEDs on the Joystick mean?
 - d. Which ports on the VEX Cortex did you use for the Motors?
 - e. Did the motors stop after 3 seconds?



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To Complete Your Challenge

1. Print a copy of your code, and add it to your Engineering Notebook entry
2. Ensure that your Engineering Notebook entry is complete
3. Open the laptop you used to write the code, with RobotC visible and running. Ensure that your code has been deployed and is “working”
4. Find one of the Mentors listed on this challenge and escort him to your work station
5. Ask one of the listed Mentors to approve your Engineering Notebook entry and have your deliverables checklist validated.
6. Put the laptop, charger, and mouse away in the designated backpack, and return the bag to the appropriate bin in the conference room
7. Put all of the materials and resources back in the designated bin, and return this paper to the Programming binder in the green bin in the conference room.
8. Leave your workspace cleaner than it was when you found it