Grand Blanc High School Robotics Team

Team Member Training - Deliverables
Complete a Skill Challenge Run

If you run into roadblocks while working on this training:

ALWAYS REMEMBER: If you get stuck or have questions…

a. Try to find an answer within the resources provided to you. Re-Read the Instructions. Re-Watch the videos. Check out the resources posted in this document or in Google Classroom. Check the REC Library & VEX Library.

b. Check the #deliverables-first-year Slack to see if someone else has already asked the question you have

c. Ask a Veteran Student on your (or another) VEX Team BEFORE you approach a Mentor.

For this training, you will be working with YOUR VEX TEAM:

1. IMPORTANT NOTE: You must attend an event WITH your VEX Team to complete this training.
2. If you have not been assigned a VEX Team, or have not been given a VEX V5 brain/controller, please talk to Clinton, and he will get you what you need.
3. Read the instructions for the Robot Skills Challenge and familiarize yourself with the process of participating in a VEX Skills Challenge.
4. Instructions for current season Skills Challenge - VEX Robotics Competition Game can be found in the Game Manual, which is available for download on VEX's website by scrolling near the bottom of the linked page
5. For this training, you will be using YOUR VEX TEAM's Robot, so you will need to coordinate with the other members of your Team to schedule who is using the robot and when.
6.

Before Beginning This Training:

1. Read these instructions COMPLETELY - start to finish - before beginning work.
2. You'll be taking notes in your **DIGITAL NOTEBOOK** while you are working, so have your document out and ready:
   1. Each person on your Team must complete their own, individual Engineering Notebook Entry. You MAY NOT just write one entry and copy/paste it for each person. We WILL be checking for plagiarism.
   2. You may choose to utilize the template available in VEX's Notebooking Library Article or create your own.
   3. If you are creating your own Engineering Notebook template, use this naming format: FIRST NAME LAST NAME - YEAR - NAME OF THIS DELIVERABLE
   4. As you work, jot down anything that you think might be important, helpful, or interesting to you.
   5. You will also need to take photos or videos to document your experiences, and include them in your notebook.
   6. There are several questions listed below the build instructions. Be sure to answer those after you're done building.
3. You'll need to do a PEER REVIEW before you submit your Digital Engineering Notebook:

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1. Any <u>Veteran</u> Student (someone who has completed a year of FRC) can do your peer review
2. Once your entry is complete, ask a Veteran Student to take a look at your entry and give you feedback.

Deliverable Instructions - at the Event:
1. NOTE: Only the Driver Skills Challenge is required; you may choose not to participate in the Programming Skills Challenge for this deliverable;. If you would like to do both the Driver and Programming portions, you can.
2. At the beginning of the event, go with your Teammates to find out where the Skills Field is located, and familiarize yourself with how to get there, and what the waiting line looks like
3. Each Team will get up to 3 attempts to complete their Skills runs - determine a turn order to ensure that each Student on your Team gets an opportunity to participate.
4. Work with the Skills Field attendant to ensure that the field is set up in the fashion outlined in the instructions linked above.
5. Connect the robot to the field, and complete the Skills Challenge as per the instructions. The Scorekeeper Referee will record and upload the results of your challenge.
6. Write down the results of each of your Team's Skills runs, and who was driving the robot, acting as drive coach, and filling the Human Player role for each run.
7. If requested, reset the field for the next group to use.
8. Repeat the Skills run as many times as necessary (up to the tournament allotted amount) so each person on your Team has the opportunity to participate.
9. If you have more Team members than allowed number of skills runs, work with Clinton/Brandi/Cathy

Engineering Notebook Entry Instructions:
Answer the following questions (using complete sentences) in your Engineering Notebook:
1. What is the advantage of participating in an OFFICIAL Skills Challenge run at a qualifying VRC Event? *Hint: This may take a little research, I would start with the game manual if I were you. [Or maybe try the Qualifying Criteria](). Find the answer yourself - don't just ask another person.*
2. Why is it important to maintain communication between the DRIVER, OPERATOR (if applicable), HUMAN PLAYER and DRIVE COACH before, during, and after a match?
3. What did you learn (that you previously hadn't realized) while completing this Skills Challenge?
4. What was your score?
5. Without changing anything on the robot, what could you do to improve your score?

6. After completing these Skills Challenges, do you think you would enjoy being on a VEX Drive Team? Why or why not?
7. How have these Skills Challenges changed your impression of the roles, responsibilities, and emotions that come with being a member of the Drive Team?

To Complete Your Challenge and Sign-Off on your Deliverables:
1. Ensure that your Engineering Notebook entry is done, and all questions are answered USING COMPLETE SENTENCES
2. PEER REVIEW - Ask one of your VEX Team Captains or a Veteran Student to look over your DIGITAL Entry. Discuss any reasonable changes that need to be made, and update your entry as necessary.
3. Upload your Deliverables to Google Classroom and Submit.