Sandpiper Training Session
Getting in the zone!

Preparing for tournaments

10/8/22

Presented by Rien Gupta, Kevin Li, and Rick Taylor

What is the progress of your team?

In the last few meetings, we have been talking about building a drive base and programming it to have basic controls. If you have done that so far, that is good, but you should still get a good function-packed robot! Tournaments are soon.

Presentations
=>

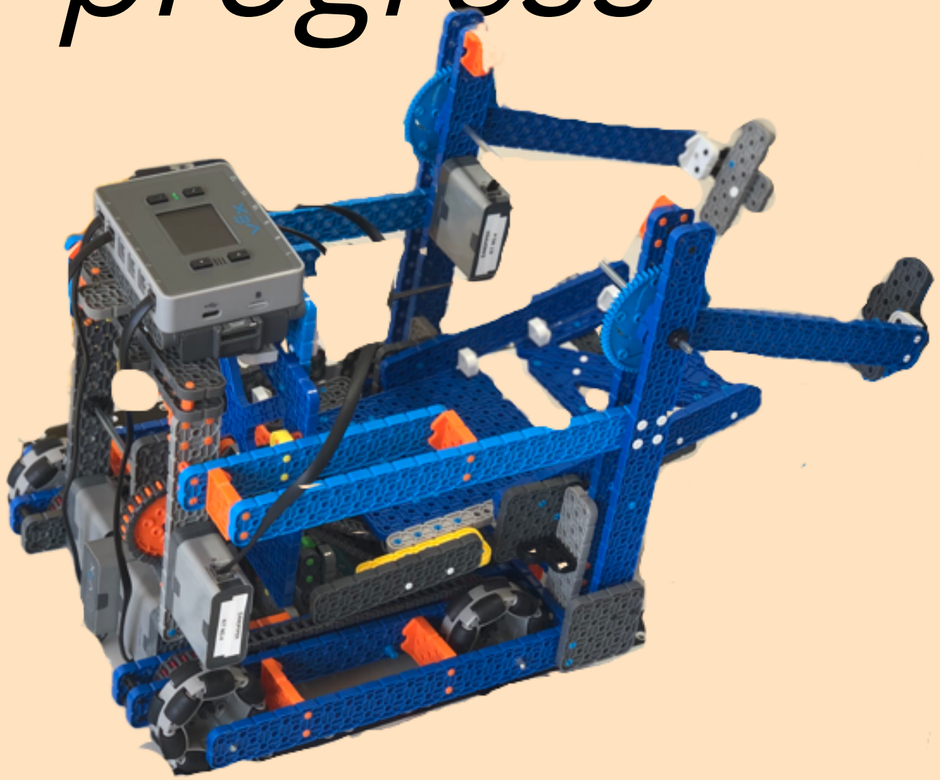
Presentations
<=

What is the progress of your team?

In the last few meetings, we have been talking about building a drive base and programming it to have basic controls. If you have done that so far, that is good, but you should still get a good function-packed robot! Tournaments are soon.

Send us a message of YOUR team's progress

My team's progress



1. Finished Building a Drive Base
2. Finished adding functions
3. Made a basic Controller Config
4. Need to practice driving
5. Need to make an autonomous

How do you persuade students in doing robotics?

The benefits of robotics are **significant**

Even being a plastic game, Vex can grow into something more. We believe that students are interested in either two things

- Learning how to do something new and fun
- Winning an award

You can win dozens of awards and learn a significant amount of topics in Vex's library. Vex has its massive Vex Worlds tournament at the end of the season, so if they want to compete with the best of the best from a laundry list of countries, scan the QR Code.

How did we persuade them?

We'd be lying if we said our students were not already committed, but here are some things we said to them so they buckled up and got ready.

1. Influence them on what they actually want.

2. Be able to level with them if they are not interested in robotics

3. Create an environment completely open to anyone, so that you can lean robotics in more.

When you have finished these, consider setting some rules

How do you get this far?

In order to get them ready, you will need to build good habits, so they can achieve the most:

01

Create plans for your meeting, and set goals for the team.

02

Be the one who understands everything beforehand, not learning with the kids

03

Make meetings consistent, no skipping days or weeks

04

Be able to make topics clear, separate programming, building, and driving rather than clustering them into one

How do we get this far?

01

We created plans before the meetings, and also were backed up by 6 years of Vex Experience

02

We planned ahead, but even we ran into problems. Some good ways to not leave an answer unfinished is to go home and look it up yourself after the meeting, rather than sticking to it for too long During the meeting.

03

We were pretty strict on those missing students, so we made them read the notebook and catch up with other students to pick up

04

We separated everything clearly, by having 2 of 6 member team working on the notebook and the other 4 working on the robot.

Now what about Competitions?

We highly recommend going to competitions, as missing out on them can be crucial to excitement for a lot of the members. In order to attend them, you must prepare and understand some basic things.

How do they work?

Get ready, as tournaments are entire day sessions with teams from across the city/state depending on the popularity joining in for a clash to win the glory.

Typical In-Person Event Timeline

All Judging Done In Person

TIME	EVENT ACTIVITY	TEAMS	JUDGES/JUDGE ADVISOR
Early Morning	CHECK-IN	Teams check in as present, hand in Engineering Notebooks. Once inspected teams can run their Skills Challenge Matches.	Judge Orientation/Begin Interviews Judges organized into groups and assigned to interview teams. Interviews can begin as soon as there are Judges assigned to groups, and any questions about the process have been addressed by the Judge Advisor. Notebooks can also start being evaluated at this time
	INSPECTION		
Morning	OPENING CEREMONIES/ EVENT MEETING	Teams attend and ask questions at Event Meeting	
	QUALIFICATION MATCHES	Teams are scheduled into Qualification Matches	Teams will be interviewed during breaks between their matches.
Lunch Break	LUNCH BREAK	Lunch Break: If event is running behind, teams may run matches through this time	Working Lunch discussion so far, each pair of Judges can name top picks for awards so far. Engineering notebooks can also be reviewed at this time.
Early Afternoon	QUALIFICATION MATCHES	Teams are scheduled into Qualification Matches	Finish Judging Interviews & begin final deliberations. Judge Advisor should collect the final Skills Challenge and Qualification Rankings from the Tournament Manager Operator, as well as any field notes to Judges. If additional interviews are needed, they should be done before qualification matches are over
Afternoon	ALLIANCE SELECTION/ ALLIANCE PAIRINGS	Teams undergo alliance selection (VRC) or Alliance pairings (VIQC) or have a short break before finals (VEX U).	Final Deliberations. Teams should not be interviewed during this time; decisions should be made with the data at hand. Once all awards are decided, Judge Advisor takes them to the Event Partner/Tournament Manager Operator to be put into Tournament Manager. Any Engineering Notebooks should be returned to teams.
End of Day	ELIMINATION/FINALS MATCHES	Teams play in Finals/receive awards. Some events may intersperse awards with finals matches, others may have an awards ceremony afterwards.	
	AWARDS/CLOSING CEREMONIES		Judge Advisor collects and destroys notes and rubrics, & clears the judging room of any identifying info. Judges may be asked to read award scripts, present awards, or just be visible for teams. Event Partner should plan this beforehand.

How to be ready for a tournament

- Get a good robot finished
- Document every process committed in the notebook.
- Practice some driving and make an Autonomous/TeleOp
- Prepare for the Design Interview

Rubrics for Notebook and Interview

CRITERIA	PROFICIENCY LEVEL			
ENGINEERING DESIGN PROCESS	**EXPERT** (4-5 POINTS)	**PROFICIENT** (2-3 POINTS)	**EMERGING** (0-1 POINTS)	POINTS
IDENTIFY THE PROBLEM	Identifies the game and robot design challenges in detail at the start of each design process cycle with words and pictures. States the goals for accomplishing the challenge.	Identifies the challenge at the start of each design cycle. Lacking details in words, pictures, or goals.	Does not identify the challenge at the start of each design cycle.	
BRAINSTORM, DIAGRAM, OR PROTOTYPE SOLUTIONS	Lists three or more possible solutions to the challenge with labeled diagrams. Citations provided for ideas that came from outside sources such as online videos or other teams.	Lists one or two possible solutions to the challenge. Citations provided for ideas that came from outside sources.	Does not list any solutions to the challenge. No citations provided for ideas from outside sources.	
SELECT BEST SOLUTION AND PLAN	Explains why the solution was selected through testing and/or a decision matrix. Fully describes the plan to implement the solution.	Explains why the solution was selected. Mentions the plan.	Does not explain any plan or why the solution or plan was selected.	
BUILD AND PROGRAM THE SOLUTION	Records the steps to build and program the solution. Includes enough detail that the reader can follow the logic used by the team to develop their robot design, as well as recreate the robot design from the documentation.	Records the key steps to build and program the solution. Lacks sufficient detail for the reader to follow the design process.	Does not record the key steps to build and program the solution.	
TEST SOLUTION	Records all the steps to test the solution, including test results.	Records the key steps to test the solution.	Does not record steps to test the solution.	
REPEAT DESIGN PROCESS	Shows that the design process is repeated multiple times to improve performance on a design goal, or robot/game performance.	Design process is not often repeated for design goals or robot/game performance.	Does not show that the design process is repeated.	
USEABILITY AND COMPLETENESS	Records the entire design and development process in such clarity and detail that the reader could recreate the project's history.	Records the design and development process completely but lacks sufficient detail	Lacks sufficient detail to understand the design process.	
RECORD OF TEAM AND PROJECT MANAGEMENT	Provides a complete record of team and project assignments; team meeting notes including goals, decisions, and building/programming accomplishments; Design cycles are easily identified. Resource constraints including time and materials are noted throughout.	Records most of the information listed at the left. Level of detail is inconsistent, or some aspects are missing.	Does not record most of the information listed at the left. Not organized.	
NOTEBOOK FORMAT	Five (5) points if the notebook has evidence that documentation was done in sequence with the design process. This can take the form of dated entries with the names of contributing students included. The notebook should also include a table of contents with entries organized for future reference."		ZERO POINTS (DOES NOT MEET CRITERIA)	
NOTES:				TOTAL

CRITERIA	PROFICIENCY LEVEL			
	EXPERT (4-5 POINTS)	**PROFICIENT** (2-3 POINTS)	**EMERGING** (0-1 POINTS)	POINTS
ENGINEERING DESIGN PROCESS *All Awards*	Students clearly explain all aspects of the design process	Students can explain most aspects of the design process	Students can explain only limited aspects of the design process	
GAME STRATEGIES *Design, Innovate, Create*	Students explain the entire evolution of their game strategy	Students can explain their current strategy with limited evidence of evolution	Students did not explain game strategy/strategy is not student-directed	
ROBOT DESIGN *Design, Innovate, Create*	Students can fully explain the evolution of their robot design to the current design	Students can provide a limited description of why the current robot design was chosen, but shows limited evolution	Students did not explain robot design /design is not student-directed	
ROBOT BUILD *Build, Create*	Students can fully explain their robot construction. Ownership of the robot build is evident	Students can describe why the current robot design was chosen, but with limited evolution	Students did not explain robot build/build is not student-directed	
ROBOT PROGRAMMING *Think*	Students can fully explain the evolution of their programming	Students can describe how the current programs work, but with limited evolution	Students did not explain programming/programming is not student-directed	
TEAM AND PROJECT MANAGEMENT *All Awards*	Students can explain how team progress was tracked against an overall project timeline, students can explain management of material and personnel resources.	Students can explain how team progress was monitored, and some degree of management of material and personnel resources	Students cannot explain how team progress was monitored or how resources were managed.	
TEAMWORK, COMMUNICATION, PROFESSIONALISM *All Awards*	Students can explain how multiple team members contributed to the robot design and game strategy. All students answer questions independently.	Students can explain how some team members contributed to the robot design and game strategy. Some students answer questions independently.	Only one team member answered questions or contributed to the robot design process.	
RESPECT, COURTESY, POSITIVITY *All Awards*	Students answer respectfully and courteously. Students make sure each team member contributes. Students wait to speak until others have finished.	Students answer respectfully and courteously. Some students attempt to contribute but are interrupted by other students.	Students do not answer respectfully and courteously. Students interrupt each other or the Judges.	
SPECIAL ATTRIBUTES *Judges, Inspire*	Does the team have any special attributes, accomplishments, or exemplary effort in overcoming challenges at this event? Please describe:			TOTAL POINTS

How we got ready for a tournament

- We have finished up our robot
- Progressively documented our progress every meeting, and have made homework for the notebook.
- Students created their own design interview and practiced for homework as well.

Tournaments coming up!

Slapshot Tounament
Oct 22nd in Modesto

Slapshot Tournament
Nov 19th in East Palo Alto

Slapshot Tournament
December 3rd in Dublin

2nd Slapshot Tournament
December 10th in East Palo Alto

Tournaments coming up!

Go to Robotevents.com for all the information necessary on tournaments, as that is where people sign up for tournaments.

Thank You

If you'd like to support,
connect with me on Linkedin! =>