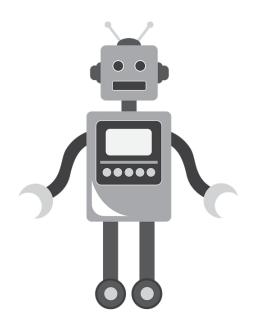
# **Princeton Robotics**

**HS/V5RC** 

2025-2026



**Welcome to Princeton Robotics!** 

Princeton partners with VEX Robotics for our robotics program. VEX is a worldwide program that integrates STEM learning into robot building and competition.

### **Educational Robotics Opens Minds.**<sup>1</sup>

Here's what VEX has to say -

At VEX, we envision a world where every student has the opportunity to be inspired by the excitement of hands-on, minds-on STEM learning and the feeling of creating something with technology. Here are some other amazing effects of teaching and learning with educational robotics:



Understanding our world more fully



Integrating STEM education in novel ways



**Becoming comfortable with iteration** 



Valuing the importance of learning from failure



Learning about jobs of the future

<sup>&</sup>lt;sup>1</sup> https://www.vexrobotics.com/

## **Practices:**

All HS practices take place at the high school in room #174. High school students will go directly to the robotics room at the end of the day and practice until 5:30. Parents will pick up their children outside the main door of the high school promptly at 5:30.

 Only sealable drinks will be allowed in the practice room. All other snacks must be cleaned up properly, or snack privileges will be revoked.

#### High School Practice - Tuesday & Thursday 3:00 - 5:30

\*HS practice doors will be locked at 3:15 you will be considered late if you arrive after the doors have been locked. Repeated lateness will result in suspension or expulsion from robotics.

### **HS Attendance Expectations**

• Teams are expected to be at practices as scheduled. We understand that other activities may at times interfere with practices. That being said, practicing at a different time/location instead of attending school practice is not acceptable. Teams are encouraged to practice outside of scheduled practices as well, but teams are required to attend scheduled practices. Failure to attend practice or communicate with the coaching staff may result in removal from events.

\*When we get closer to tournaments, extra practices may be granted to both MS and HS teams who are actively participating and working on their robot and need extra time. You must get permission from one of the coaches.

### At Practice I Am Expected To:

- Participate as a TEAM MEMBER
  - All team members should be included in:

problem solving, creative thinking, active listening, decision making, time management, & effective communication

- All team members should display:

integrity, empathy, compassion, etc. when working with others.

- inappropriate language, harassing others, belittling, physical altercations, etc. are not acceptable behaviors at robotics.
   Depending on the severity of the behavior you, or your team may be sent home from practice and/or not able to participate in tournaments. Individual's actions may not affect the entire team, but may result in removal from practice, future competitions or the program as a whole.
- Actively work on my robot
  - Roles to fill on each team:
    - Team Leader/Captain
    - Builder
    - Programmer
    - Notebook Manager
    - Media Manager
    - Research & Development
    - EVERYONE should be working on something related to their robot at practice. Playing around, unwillingness to follow directions, unwillingness to clean up, not contributing to the development of your robot, distracting others from contributing to the development of your robot, etc. are not acceptable behaviors at robotics.
    - The continuation of these behaviors lets the coaches know that you are not yet ready to compete at tournaments, as you are not fully able to represent your team or Princeton Robotics.
    - Coaches continually talk with individuals & teams about expectations, if behaviors continue over several practices parents will be contacted.
- Interact respectfully with other teams
- Follow safety guidelines
- Respect all property and PARTS (destroyed parts will be replaced by individuals at their own cost)
- Clean my area at the end of practice (tools & parts put away, trash & recycling put where they belong, floor free from parts and trash, etc.)

\*If you are disruptive and/or disrespectful and/or not working on your robot during practice, a parent will be called to come and pick you up early.

\*Parents are encouraged to volunteer to help out at practices. You do not need any experience with robotics, just a willingness to guide teams in the right direction. You must have a background check completed before you can help out.
\*If you are ever curious how your child is doing, please feel free to contact coaches.

## **Tournaments:**

Tournaments usually take place on a Saturday, with a few exceptions. Robotics teams will ride the bus to and from the tournament. Students are NOT allowed to drive themselves to tournaments. **Students are expected to remain at the tournament for the entire time.** Exceptions to leave early will be granted if permission is obtained from a coach **BEFORE** a tournament takes place. Parents are encouraged to attend all tournaments!

Robotics is a team sport and students are expected to be with their team during the tournaments. If your team is not actively solving an issue with your robot during the tournament, then your team should be watching the competition. Hanging out in the pit area playing electronic devices or games is not part of robotics.

Teams must also work together at the beginning and end of tournaments so that each team member is participating in the unloading and reloading of robots and supplies and making sure that your pit area is cleaned up at the end of the day.

Please remember that when you are traveling to different schools for tournaments you are not only representing Princeton Robotics, but you are representing Princeton High School or Princeton Middle School. As such, the **school code of conduct applies** to all students participating in the tournaments, including while you are traveling to and from tournaments. In addition to the Princeton Code of Conduct, the <u>REC Code of Conduct</u> and any additional rules that are in place at the venue we are using also apply.

\*If you cannot behave according to the Code of Conduct, and/or any other rules that are in place, you will be asked to leave the tournament. Repeated offenses may result in suspension or expulsion from robotics.

### Which Teams Are Going To Tournaments?

Not every team will qualify to attend every tournament, and there are only so many tournaments available to attend, also factor in the cost of registration and bussing. \*Middle School teams are only guaranteed one event, (Princeton Rum River Rumble in February); if robots/teams are ready and prepared for a competition. We will do our best to get teams into at least 2 events for the regular season. If a team is actively working and ready, coaches can decide if that team has earned a spot to compete in more tournaments, and if the budget allows.

\*High School teams are guaranteed 2 events provided they are ready and prepared for a competition. More opportunities will be added if scheduling, travel, and cost line up. If teams want additional competition opportunities, they are able to work with the coaches to register and pay for an event not being attended by the school. As students are only able to compete on one registered team, the schools Robot Events account registered with the RECF will be used. No school funds will be used for registration or transportation to or from these events should they arise.

### In Order To Qualify Middle School & High School Teams Must:

- Actively work on the robot during practices
  - Designing
  - Building
  - Coding
  - Troubleshooting
  - Writing in the TEAM engineering notebook
- Demonstrate TIGER PRIDE when using the school's tools and materials.
- Demonstrate TIGER PRIDE when interacting with:
  - Coaches
  - Team members
  - Other teams during practice
- Clean up after every practice

- Tools and parts are put away
- Trash and/or recycling are put where they belong
- Be on track for having a working robot by the tournament day
  - Robots can complete tasks required to play the game, as determined by the coaching staff.
  - Drivers are able to drive the robot
  - Coding is in place for autonomous driving and skills driving

\*Robotics is a highly competitive activity. It is our job as coaches to give the program the best chance to win. Teams will be continually ranked by the coaches in order of competitiveness, as well as competitive opportunity, based on other teams registered for each tournament. In the event that we do not have the ability to bring all competition teams to an event, coaches will decide which teams have the best opportunity to be competitive at that event and register teams accordingly.

#### Criteria:

- Continually progressing on the development of the robot
- Team keeps a detailed engineering notebook
- In house skills school of ranking score resets after each tournament

## How to Letter in Robotics:

#### **Student Must:**

- 1. Compete on a registered High School team for at least 2 tournaments.
- 2. Qualify and compete in the State Tournament (high skills ranking, tournament champions, excellence award, and design award)

# Communication: This is a requirement!

Remind App: Please log in to the Remind App - CODE isd477vex

\*Parents please list your full name and in the settings connect your child to you

### \*THIS IS THE MAIN WAY THAT COACHES WILL COMMUNICATE.

#### Coach Contacts:

High School - David Wittwer - david.wittwer1@gmail.com

- AnnMarie Brockhouse - amtb827@yahoo.com

#### What if a parent has a concern about their child, or their child's team?

As laid out in the student handbook, the procedure for dealing with an issue with the program is as follows:

- 1. Request an informal meeting with the coaching staff
- 2. Request a formal meeting with the coaching staff
- 3. Request a meeting with the coaching staff and the Activities Director

\*These steps are to be taken on an individual basis and not as a group.

# Supplies:

Items to be supplied by the school/robotics program: (this does not include any items that may be purchased by the booster club or program sponsor)

- Robot brain/radio/controller and batteries
- Steel and Aluminum frame pieces and parts
- Nuts, bolts and assorted hardware
- Standard and Omni directional wheels
- Motors with standard cartridges
- High speed motor cartridges
- Flex wheels
- Pneumatics (we have limited availability and these will be limited to teams demonstrating a need and effective design for utilization)
- Chain, track and associated parts that we have
- Axels both regular and high strength (high strength hardware is limited)
- Access to fields and programming laptops (school chromebooks are recommended for programming)

\*If a student or parent wishes to purchase additional items that are not provided by the program, they are able to do so. These items remain the personal property of the student or parent; they must be inventoried and clearly marked. If they wish to donate these items to the program, a donation form will need to be completed to ensure our inventory is accurate.

### Student-Centered Ethos:

<G2> V5RC is a student-centered program. Adults should not make decisions about the Robot's build, design, or gameplay, and should not provide an unfair advantage by providing 'help' that is beyond the Student's independent abilities. Students must be prepared to demonstrate an active understanding of their Robot's design, construction, and programming to judges or event staff. Students should build, design, and code the Robot with minimal Adult involvement.

- Some amount of Adult mentorship, teaching, and/or guidance is an expected and encouraged facet of VEX competitions. No one is born an expert in robotics! However, obstacles should always be viewed as teaching opportunities, not problems for an Adult to solve for the team.
- When building or designing the Robot, it is...
  - Okay for an Adult to help a Student consider why something failed, so it can be improved.
  - Not okay for an Adult to provide step-by-step instructions or photos for the Student to copy.

When a mechanism falls off, it is...

- Okay for an Adult to help a Student consider why it failed, so it can be improved.
- Not okay for an Adult to investigate or put the Robot back together.

When a Team encounters a complex programming concept, it is...

- Okay for an Adult to guide a Student through a flowchart to understand its logic.
- Not okay for an Adult to write a premade command for that Student to copy/paste.

During Match play, it is...

- Okay for an Adult to provide cheerful, positive encouragement as a spectator.
- Not okay for an Adult to explicitly shout step-by-step commands from the audience.
- This rule operates in tandem with the REC Foundation Student Centered Policy, which is available
  in the REC Library for Teams to reference throughout the season.
- Violation Notes: Potential Violations of this rule will be reviewed on a case-by-case basis. By
  definition, all Violations of this rule become Match Affecting as soon as a Robot which was built or
  coded by an Adult wins a Match. All reported and/or suspected <G2> Violations should be
  reported to the Event Partner during the event, and should be reported to the REC Foundation
  Rules and Conduct Committee following the event.



# **Robotics Commitment**

| Please sign, date, and return once you have read the robot   | ics handbook |  |
|--|--------------|--|
| AND have had all questions answered. By signing              | you are      |  |
| stating that you understand and agree                        | to the       |  |
| handbook requirements and expectations.                      | Welook       |  |
| forward to an exciting year of fun and competitive robotics! |              |  |

| Parent  | Date |
|---|------|
| Student   | Date |
| Parent/guardian phone number where y times in case of emergency or if your chil | 91   |
| Name(print)   | #    |