

VEX Robotics 24-25

September 10th, 2024

Educational Robotics Opens Minds

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:



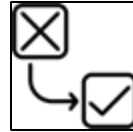
Understanding our world more fully



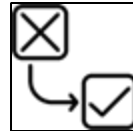
Integrating STEM education in novel ways



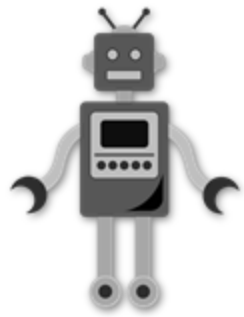
Becoming comfortable with iteration



Valuing the importance of learning from failure



Learning about jobs of the future



Practice Days & Times

IQ

Day:
Wednesday

Time: 2:00-
4:00

Middle School

Days: Monday &
Wednesday

Time: 3:15-5:30

High School

Days: Tuesday &
Thursday

Time: 3:00-5:30

Expectations at Practice:



- ❑ **How do I 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 when working with others.

- ❑ **How do I actively work on my robot?**

Roles Within Each Team

- Team Leader
- Builder
- Programmer
- Notebook Manager
- Media Manager
- Research & Development

- Coaches continually talk with individuals & teams about expectations. If inappropriate behaviors continue over several practices parents will be contacted.

Expectations at Practice Continued:

- ❑ Interact respectfully with other teams
- ❑ Follow safety guidelines
- ❑ Respect all property and PARTS (Destroyed parts will be replaced by individuals. For example: Aluminum C channel = \$39.99/6)
- ❑ Clean my area at the end of practice (tools & parts put away in the correct location, trash & recycling put where they belong, floor free from parts and trash, etc.)
- At the end of the year your team is responsible for COMPLETELY taking apart your robot and putting all supplies away

What game do we play this year?

IQ:

Rapid Relay

<https://youtu.be/aa0B7kNHpg8?si=WHyGY30iZU-xwJnl>

VRC:

High Stakes

<https://youtu.be/Sx6HJSpopeQ?si=v4gGrLEpB7UhdDg>

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.**

TOURNAMENT SCHEDULE MS & HS

HS League Dates: Oct 24, Nov 7 & 21, & Dec 5 & 19
- North Junior High - STC

Nov 23rd -SCLA

Dec 7th - Apollo

Dec 20th - MSU

Jan 4th- Tech or Windom

Jan 18th - Princeton IQ

Jan 25th Kimball

Feb 1st - Princeton MS & HS

Feb 8th - Sauk Rapids

Feb 27/28 **VRC STATE** - St. Cloud

Mar 1st - **IQ STATE** - St. Cloud

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TOURNAMENT SCHEDULE MS & HS

Create US Open - Council Bluffs, IA

Mar 24th – 26th – Middle School VRC

Mar 27th -29th – High School VRC

Mar 31st – Apr 2nd – Elementary IQ

Worlds - Dallas, TX

May 6th – 8th – VRC – HS

May 9th – 11th – VRC - MS

May 12th-14th - IQ

***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.**

Tournament Expectations

VEX G1 Rule

<G1> Treat everyone with respect. All *Teams* are expected to conduct themselves in a respectful and professional manner while competing in VEX V5 Robotics Competition events. If a *Team* or any of its members (*Students* or any *Adults* associated with the *Team*) are disrespectful or uncivil to event staff, volunteers, or fellow competitors, they may receive a *Disqualification* from a current or upcoming *Match*. *Team* conduct pertaining to <G1> may also impact a *Team's* eligibility for judged awards. Repeated or extreme violations of <G1> could result in a *Team* being *Disqualified* from an entire event, depending on the severity of the situation.

<https://content.vexrobotics.com/docs/2024-2025/v5rc-high-stakes/HighStakes0903-2.0.pdf>

- Robotics is a team sport. You should always be with your team, or let your team know where you are (bathroom break, concessions, etc.).
- All teams should be either actively working on the robot, practicing driving, improving code, etc. OR watching the tournament.
- Hanging out in the pit area on electronic devices is NOT a part of robotics.
- Team members must be present before and after tournaments in-order to load and unload robots and supplies into and out of the robotics room.
- Team members must help clean up the pit area at the end of the tournament.
- Team members must help load all robotics supplies and equipment onto the bus trailer at the end of the tournament.
- At tournaments you represent Princeton Robotics & Princeton MS or HS; the Code of Conduct applies to you.
- The REC Code of Conduct also applies to you at all tournaments.
- If you cannot follow the Code of Conduct, and/or any other rules that are in place, you will be asked to leave the tournament.

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* IQ teams are guaranteed ONE tournament - Princeton IQ
Tournament - January 18th

* MS teams are guaranteed ONE tournament - Princeton Rum
River Rumble - February 1st

- We will do our best to get IQ & MS teams to at least 2
tournaments depending on the BUDGET and the completion of
robots & success of teamwork at practices

* HS teams are guaranteed 2 events (if the BUDGET
allows)

- 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 school's 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.

Criteria for Tournament Selection



How to Qualify

- ❑ Actively work on the robot during practices
 - ❑ 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
 - ❑ Be on track for having a working robot by the tournament day
 - ❑ Robot can play the game
 - ❑ Drivers are able to drive the robot
 - ❑ Coding is in place for autonomous driving and skills driving
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Robotics is a highly competitive activity. It is our job as coaches to give the program the best chance to win. Teams will be 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.

Budget:

Robotics is a very expensive activity. The parts, the transportation, registration of teams with REC, and the registration of teams for tournaments, all add up quickly. In the past, our budgets have been small, but we've still been able to make sure that all teams have the base parts, register all teams with REC, provide transportation to 2 away tournaments and state, and pay for the registration for teams to attend (most teams) 2 tournaments each. With the budget cuts in place for this year, we will need your help to make some of these things a reality. Booster Club is ready to fundraise!

Budget & Supplies

School Supplies:

- 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 and torque 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 allowed for programming

Personal Supplies:

Due to the limited budget, and the large number of teams, supplies are limited. If you would like to purchase any supplies on your own, for your own robot, you are welcome to do so.

- These items should be properly labeled, and accounted for, by the student.
 - It is not the responsibility of coaches to ensure the safety and return of personally purchased parts.
 - The school is not responsible for replacing any personally purchased parts or equipment that are lost, damaged, or otherwise rendered unusable.
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How to Letter in Robotics

Students 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, & design award)

Communication

ALL IQ, MS, & HS parents must sign up for

Remind App

CODE for MS & HS: **isd477vex**

CODE for IQ: **47721IQ**

Coach Contacts:

Elementary School IQ – Mike Rittenour - mikerittenour50@gmail.com

Middle School – Dale Carlson - dalecarl1@gmail.com

High School - David Wittwer - robotics@isd477.org



Booster Club Opportunities

- Our Purpose
 - Fundraisers
 - Tournament Volunteers
 - Help Wanted
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Please:

- Read the handbook
- Ask any questions
- Sign the last page
- Turn it in to your coach

by September 25th
