



ROBOTICS EDUCATION &
COMPETITION FOUNDATION

SUMMIT

| ROBOTICS PROGRAMS |



Mission

The Robotics Education & Competition Foundation's global mission is to provide every educator with competition, education, and workforce readiness programs to increase student engagement in science, technology, engineering, math, and computer science.

Vision

We see a future where every student designs and innovates as part of a team, overcomes failure, perseveres, and emerges confident in their ability to meet global challenges.



Coach Workshop and Discussions

Presented by



Pat Price

Senior Regional
Support Manager



David Brown

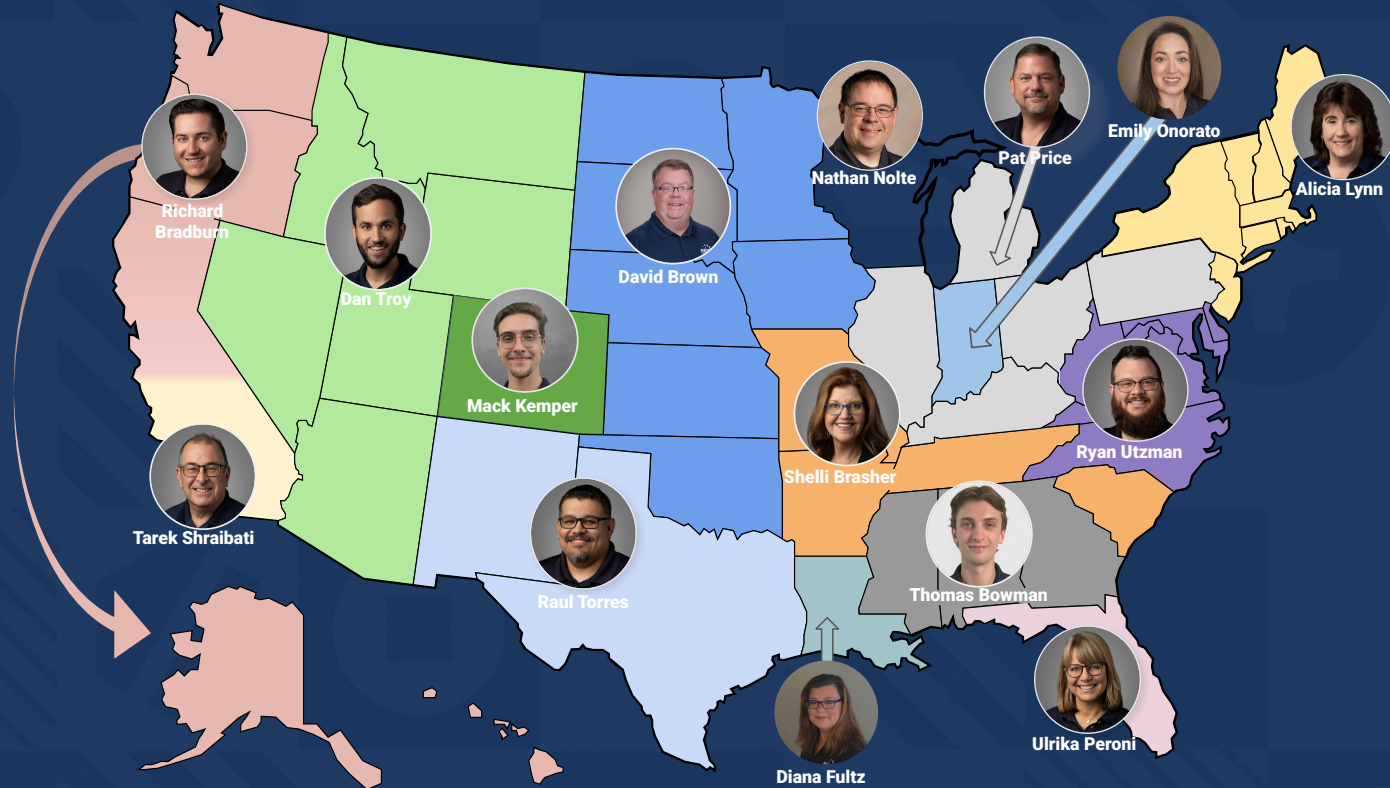
Regional Support
Manager

RECF Agenda

- 1 New RECF Competition Programs
- 2 Organizational Policy
- 3 Coach Professional Development
- 4 Student Centered
- 5 Team Organization and Leadership
- 6 Competition Readiness
- 7 Recruitment, Retention, and Sustainability
- 8 Competition Strategy
- 9 Coach/Event Partner Mentorship



Regional Support Manager Map



Canada



Richard Seniuk

Latin America & Caribbean



Issac Perez

International



Tarek Shraibati

RECF Competition Programs

RECF ENGAGE
ROBOTICS COMPETITION

RECF Engage

Elementary School (U12) /
Middle School (U15)

 **AERIALDRONE**
COMPETITION

Aerial Drone Competition (ADC)

Elementary/Middle School/High School

RECF ACHIEVE
ROBOTICS COMPETITION

RECF Achieve

Middle School (U15) /
High School (U19)

AERIALDRONE
COMPETITION
PRO

Aerial Drone Competition (ADC) Pro

High School/College

RECF INSPIRE
ROBOTICS COMPETITION

RECF Inspire

College/University



RECF Competition
Programs

RECF is not authorized to organize, promote, approve, or manage VEX Robotics competitions. Any competition organized, promoted, or managed by RECF that involves VEX products is not sanctioned by VEX Robotics, Inc. and will not qualify teams for the 2026–2027 VEX Robotics World Championship.

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RECF Organizational Policy

What is an Organization?

- Same event region from the same program
- Meet together consistently at a common location
- Each school in a single district = different organizations
- Each location of a private club = different organizations
- Multiple grade levels at a single location can choose
- Some organization types will require a supporting document

*All changes require Regional Support Manager (RSM) approval



Organizational Policy



If a coach leaves, the number belongs to the organization - not the coach

Grants

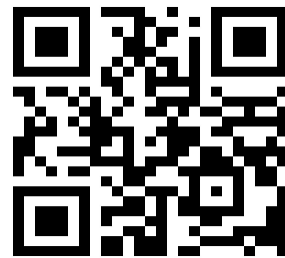
Grant funders generally request that teams meet one or more of the following criteria:

- Low Socioeconomic (Free/Reduced Lunch)
- Black
- Hispanic
- Native American/Indigenous
- Rural
- Girl Powered (50% or more females)

If you need additional support, please email grants@recf.org



RECF Grants



NCES.ed.gov

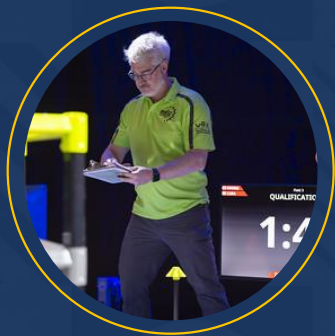
COMING SOON

Training and Certifications

ALL CERTIFICATIONS ACCESSIBLE - training.recf.org



**Drive Team
Member
Training Courses**



**Head Referee
Certification
Courses**



training.recf.org



**Event Partner
Certification
Courses**



**Judge Advisor
Certification
Courses**



RECF Coach Academy

Online training
located on
Moodle platform
training.recf.org

- Courses on
 - Administrative tasks
 - Registration procedures
 - Coaching resources
- New training courses added throughout the season
- PD hours available

Weekly Coach
Academy Office
Hours Calls

- Calls lead by the Training Team
- Different topics each week
- Coaches can sign up for as many calls as they'd like



Ways to Elevate your Robotics Experience



**International
Robotics
Honor Society**



**Alumni
Association**



**Lettering
& Rings**



Internships



Scholarships

Student Centered Programs



Student Centered

Behavior Guidelines for Team Adults

Student Led, Student Success!

We thank you for your cooperation and commitment to making this a memorable and educational experience for all students. For comprehensive information on the REC Foundation's Student-Centered Policy and Code of Conduct, please visit audience.recf.org.



Encourage Student Communication

Guideline: Students should be the only ones who communicate directly with judges, referees, and members of other teams.

Reason: Leading team communications gives students opportunities to practice their presentation, problem-solving, and negotiation skills.



Avoid Unnecessary Interference

Guideline: Do not interfere with the operations of other teams or the event staff.

Reason: This maintains the integrity and smooth operation of the competition.



Stay Behind the Scenes

Guideline: Adults should stay in the background during active problem-solving and match play.

Reason: When students are the primary participants and leaders in the competition, all teams are on a level playing field.



Respect All Participants

Guideline: Treat all students, mentors, volunteers, and other event attendees with respect and courtesy.

Reason: Respectful behavior promotes a fair and enjoyable experience for everyone involved.



Consequences for Non-Compliance

1. Teams will receive warnings or violations for adult interference.
2. Repeated offenses could lead to a team's disqualification.
3. Adults may be asked to leave the competition area.



A group of approximately 15 students, mostly young adults, are posed in three rows. They are wearing dark t-shirts with a diamond-shaped logo. In the front row, a white dog is sitting on the left, wearing a dark vest with a logo. The background is a solid blue color with a faint, light blue grid pattern.

Open Discussion

1

What would you expect to observe in a Student Centered team?

2

What impact should I expect as I shift from a leadership role to a facilitation role, and what potential pitfalls should I be prepared for?

3

How will my role be shared with outside observers?

Team Organization and Leadership

Building a Student-Led Team for Success

Why Team Organizations Matter

- Improves communication and collaboration
- Ensures all students have meaningful roles
- Increases efficiency during meetings and competitions
- Develops leadership and workforce-ready skills
- Creates a sustainable team for future seasons



A group of approximately 15 people, mostly young adults, are posed in three rows. They are wearing dark t-shirts with a diamond-shaped logo. In the front row, a white dog is sitting on the left, wearing a dark vest with a logo. The background is a plain wall.

Open Discussion

1

Application process (building, interview and observation) How do feel about handwritten responses?

2

What elements would you include in your Student/Parent handbook/contract?

3

What constraints will you need to consider when determining how many teams/students your program can support this season?

Building Success within a Student-Led Team

Recommended Team Structure

Team Captain	Leads meetings and coordinates team activities
Engineering Lead	Oversees robot design, building, and testing
Programming Lead	Manages coding, autonomous routines, and troubleshooting
Notebook Manager	Maintains engineering documentation and award submissions and delegates entries
Outreach/ Media Lead	Handles community engagement, sponsors, and team promotion



A group of approximately 15 people of various ages and ethnicities are posing for a photo. They are wearing dark-colored t-shirts with a diamond logo and the words 'Diamond Desert' on them. In the foreground, a white dog is sitting, also wearing a similar 'Diamond Desert' vest. The background is slightly out of focus, showing what appears to be an indoor setting with some equipment.

Open Discussion

1

Will you (or can you) support one-person teams within your organization?

2

Lead doesn't mean exclusive. How will you encourage cross-training?

3

What additional team/organization roles will you need during the season?

Competition Readiness

Preparing Your Team for a Successful Competition Experience

Before Your Event

- Complete registration and verify team information
- Review the current game manual and official Q&A updates
- Ensure Engineering Notebook is complete and competition-ready
- Conduct robot inspections using official requirements
- Practice driving, teamwork, autonomous routines, and match strategy

Competition Day Checklist

- Charged batteries and backup batteries
- Robot tools and spare parts
- Team laptop and programming cable
- Engineering Notebook
- Safety glasses (if required)
- Team schedule and scouting materials



Open Discussion

1

What other competition items need to be addressed by student team members in preparation for the Competition Day?

2

What communications does a coach/mentor need to share prior to competition day?

3

What Competition Day expectations do you have in place with your team members?



Competition Strategy

Before The Competition

- Thoroughly understand the game manual and scoring opportunities
- Design your robot around a clear game strategy
- Practice driver skills, autonomous routines, and teamwork
- Analyze successful robots and match strategies from past events
- Identify your robot's strengths and limitations

Competition Strategy

During Qualification Matches

- Focus on consistent scoring rather than risky plays
- Communicate and coordinate with alliance partners
- Adapt your strategy based on opponents and match conditions
- Maximize ranking points and performance opportunities
- Learn from every match and make adjustments





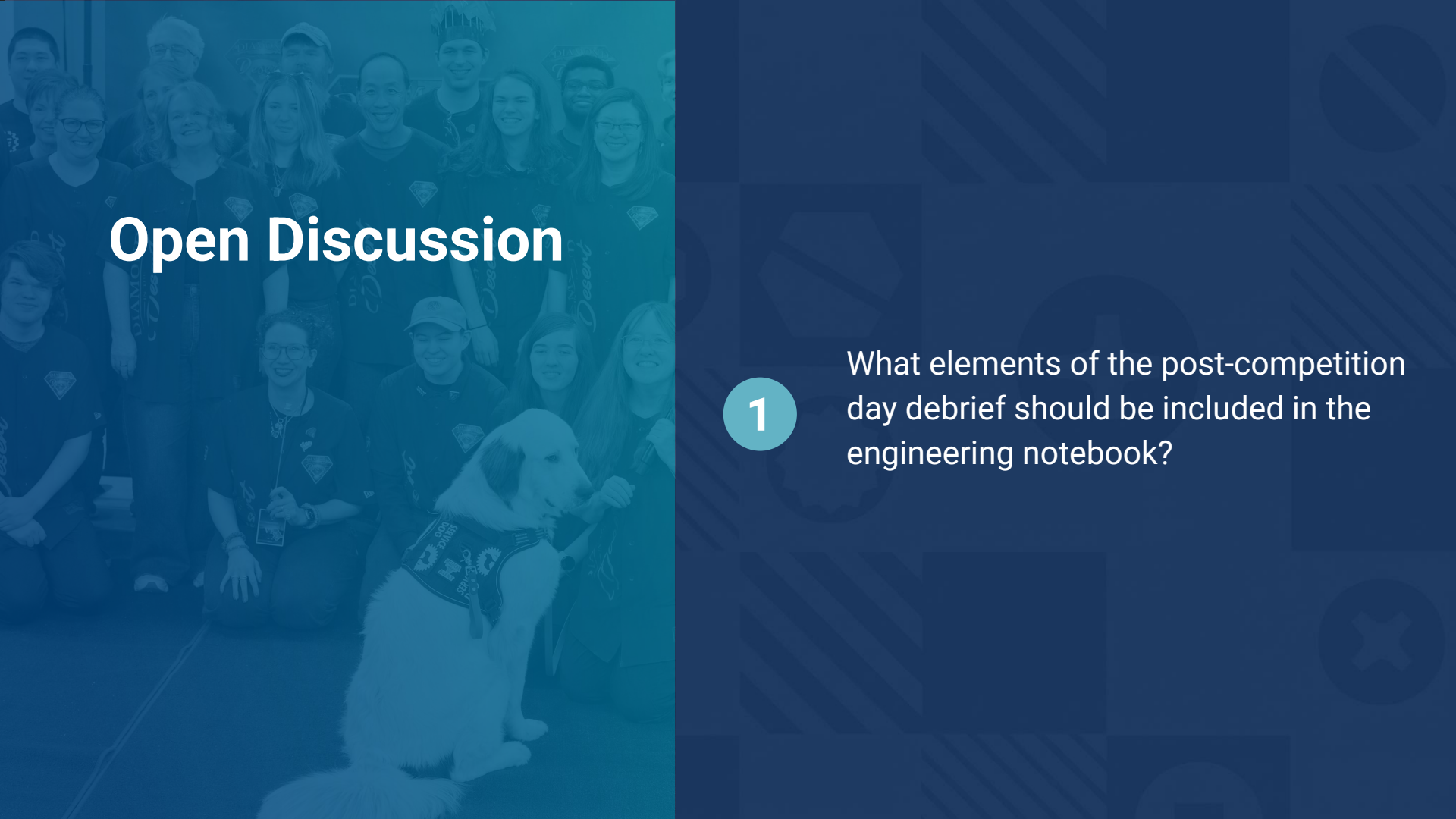
Competition Strategy

Alliance & Elimination Strategy

- Scout teams throughout the event
- Look beyond rankings—consider reliability, skills, and teamwork
- Select alliance partners that complement your robot's abilities
- Develop a match plan before entering the field

Strategic Questions to Ask

- What scores us the most points consistently?
- What can we do better than most teams?
- How can we support our alliance partners?
- What adjustments should we make after each match?

A group of approximately 15 students, mostly young adults, are posed for a group photo. They are wearing dark t-shirts with a diamond-shaped logo. In the foreground, a white dog is sitting, wearing a dark vest with a logo. The background is a solid blue color with faint, repeating geometric patterns of squares and circles. The text 'Open Discussion' is overlaid on the left side of the image.

Open Discussion

1

What elements of the post-competition day debrief should be included in the engineering notebook?

Recruitment, Retention and Sustainability

Building and Growing a Long-Term Robotics Program

Recruitment: Attract New Students

- Host robotics demonstrations and STEM nights
- Partner with schools, community organizations, and local businesses
- Encourage current students to invite friends and classmates
- Promote opportunities through social media and school communications
- Highlight the fun, teamwork, and career pathways robotics provides

"The strongest robotics programs don't just build robots— they build future leaders and lasting opportunities for students."

Formula for Success

Recruit



Engage

Develop Leaders

Sustain Growth

Recruitment, Retention and Sustainability

Building and Growing a Long-Term Robotics Program

Retention: Keep Students Engaged

- Create meaningful roles for every team member
- Celebrate achievements and milestones
- Foster a positive, inclusive team culture
- Provide leadership and mentoring opportunities
- Focus on student growth, learning, and ownership

"The strongest robotics programs don't just build robots— they build future leaders and lasting opportunities for students."

Formula for Success

Recruit



Engage



Develop Leaders

Sustain Growth

Recruitment, Retention and Sustainability

Building and Growing a Long-Term Robotics Program

Sustainability: Plan for the Future

- Create meaningful roles for every team member
- Celebrate achievements and milestones
- Foster a positive, inclusive team culture
- Provide leadership and mentoring opportunities
- Focus on student growth, learning, and ownership

"The strongest robotics programs don't just build robots— they build future leaders and lasting opportunities for students."

Formula for Success



Mentoring Other Coaches and Event Partners and Growing Your Area.

How Coaches & Event Partners Can Make an Impact

Mentor New Coaches

- Guide first-year coaches through registration, season planning, and student-centered coaching.

Support New Event Partners

- Share event planning, volunteer management, and competition best practices.

Develop Student Leaders

- Encourage students to mentor younger teams, volunteer at events, and lead within their teams.

Build Your Robotics Community

- Host workshops, scrimmages, coach meetups, and share resources with neighboring teams.

Grow New Programs

- Help schools start teams, connect them with funding, and provide ongoing support.

Engage Industry & Volunteers

- Recruit mentors, judges, referees, sponsors, and community partners to strengthen local programs.

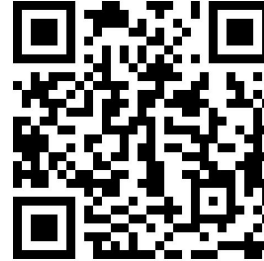
REC Foundation Resources



About
Team Grants



RECF
Trainings



RECF
Events



RECF
Library

The Ripple Effect

One mentor can inspire dozens of students, strengthen multiple teams, develop future leaders, and create a sustainable robotics community.

"Strong communities aren't built by one successful team—they're built by teams helping teams succeed."



Thank You



RECF Support