



**2021 VIRTUAL**

**REC FOUNDATION  
SUMMIT**

**WELCOME, VISION & MISSION**

**Ruby Pontbriand**





# Inspiring students, one robot at a time.

## OUR MISSION

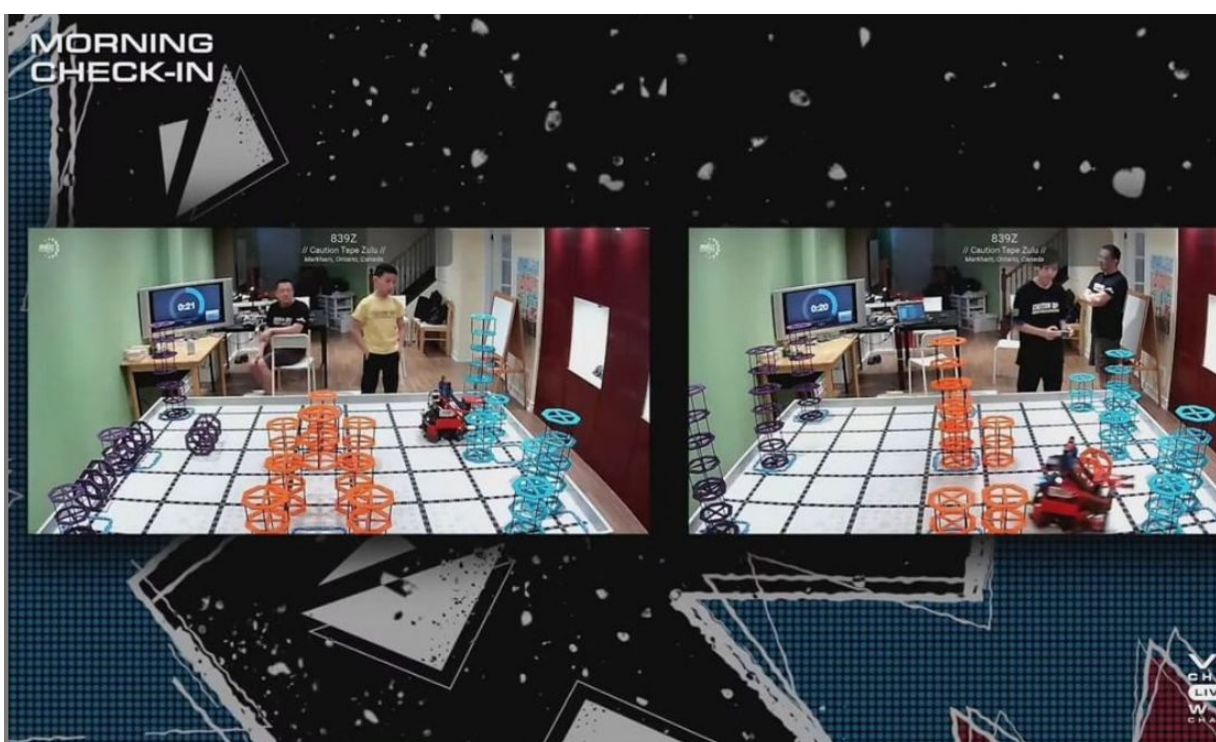
Increase student interest and involvement in science, technology, engineering, and mathematics (STEM) by engaging students in hands-on, affordable, and sustainable robotics engineering programs.



ROBOTICS EDUCATION & COMPETITION FOUNDATION  
Inspiring students, one robot at a time.

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Inspire and motivate  
students to excel in  
STEM education.



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## OUR VISION

We **create** programs  
so all students  
**develop** and **thrive**.



We see a future where all students design and innovate as part of a team, experience failure, persevere, and embrace STEM.



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# 21st Century Workforce

Educating Tomorrow's Innovators

**NEARLY  
7 MILLION  
STEM JOBS ARE GOING  
UNFILLED**

- The REC Foundation's education programs provide a pathway to STEM careers
- VEX Robotics students earn manufacturing industry certifications 50% faster than other students. (RAMTEC, 2018)

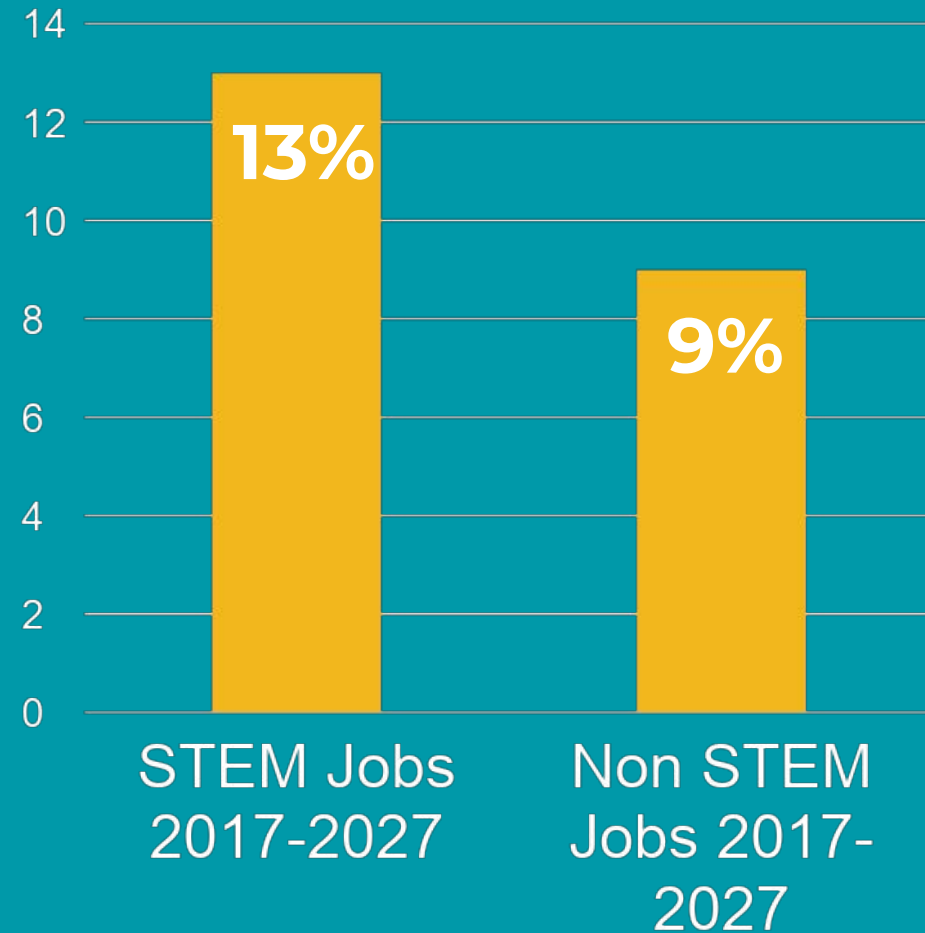


# 21st Century Workforce

## STEM Projections

THE AVERAGE STEM JOB  
AVAILABLE TO WORKERS  
*WITHOUT* A BACHELOR'S  
DEGREE PAYS  
**\$ 53K**

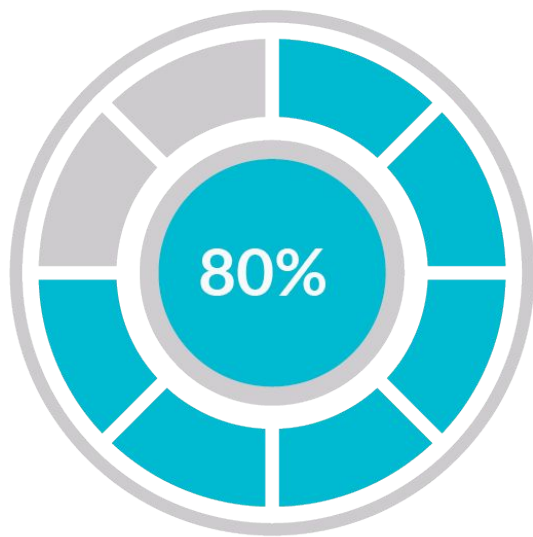
Projected STEM Job Growth



# 21st Century Workforce

## STEM Projections

A Harvard University Study found that achievement on the job required:

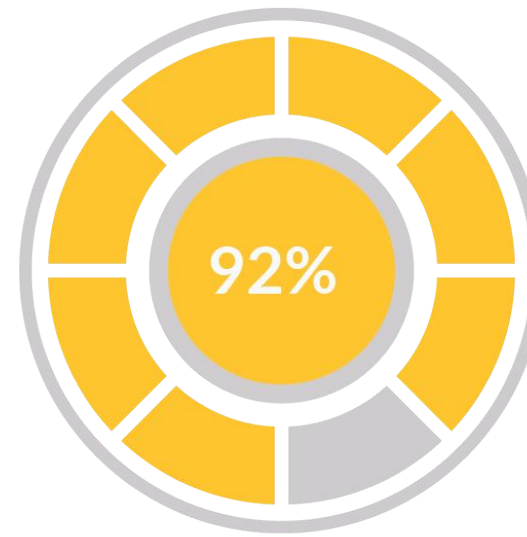


**Soft Skills**

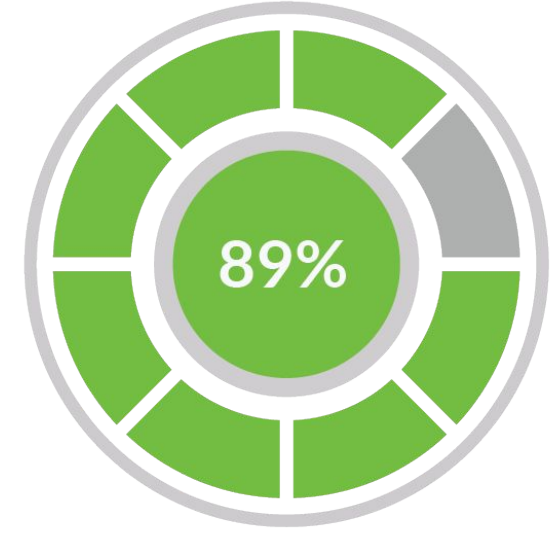


**Hard or  
Technical Skills**

The Wall Street Journal interviewed 900 executives and found:



**Soft skills are as  
important as hard  
skills**



**Having a hard time  
finding hires with  
soft skills**



# 21st Century Workforce

## Soft Skills For A Strong Future

1. Teamwork
2. Collaboration
3. Problem Solving
4. Time Management
5. Critical Thinking
6. Communication







## What is Workforce Readiness?

Workforce readiness means having students\* prepared to enter the workforce with the knowledge, skills, abilities and attributes ready to engage in activities that will be required for the workplace.

Workplace readiness skills are important because they ensure workers have the basic academic, critical thinking and personal skills necessary to maintain employment. Academic skills such as *reading, writing, basic math and communication skills\** are essential for optimal job performance.





Pre-K
Grades K-2
VEX 123

Elementary
Grades 3-4
VEX IQ Challenge
VEX GO Challenge

Middle School
Grades 5-8
VEX IQ Challenge
REC Foundation Aerial Drones (RAD)
VEX Robotics Competition

High School
Grades 9-12
VEX Robotics Competition
REC Foundation Aerial Drones (RAD)
VEX V5
Factory Automation Competition (FAC)
VEX AI Competition (VAIC)

Post-Secondary
Collegiate
VEX U
Factory Automation Competition (FAC)
VEX AI Competition (VAIC)

# STEM Education Continuum





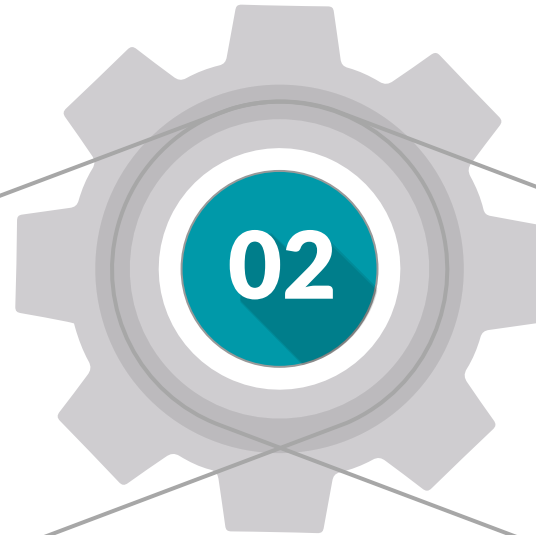
# Affordable

## Robotics Education Kits



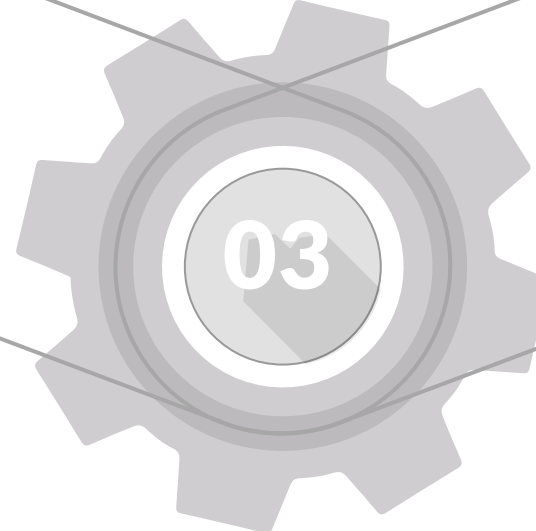
### Additional Cost

Once a kit is purchased, annual registration fees are the only additional costs.



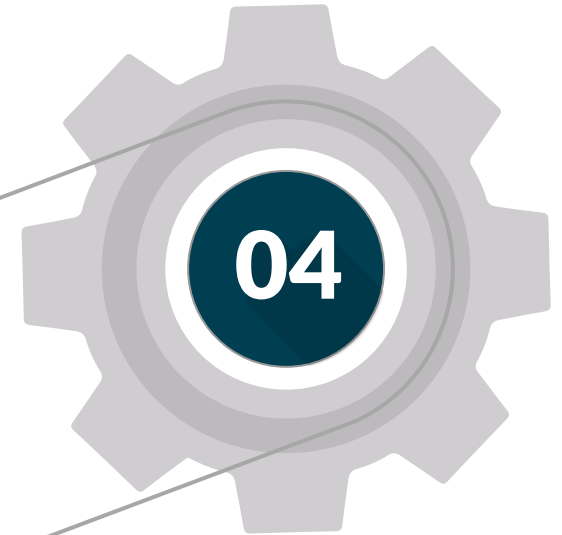
### Duration of Kits

Kits last about 5-7 years.



### Fields

Game fields can be repurposed year after year.



### Team Activation

On average, teams will remain active for five years after initial kit purchase.



# Accessible

## Overcoming Barriers



THE HIGHEST REWARD FOR A PERSON'S  
WORK IS NOT WHAT THEY GET FOR IT; BUT  
WHAT THEY BECOME BY IT

- JOHN RUSKIN -

Participation and success in our programs is self-paced and available for everyone, regardless of experience in STEM robotics, or location.

- Student-centered and self-paced learning
- Support educators with free, easy to follow, hand-on STEM lesson plans with guided explorations

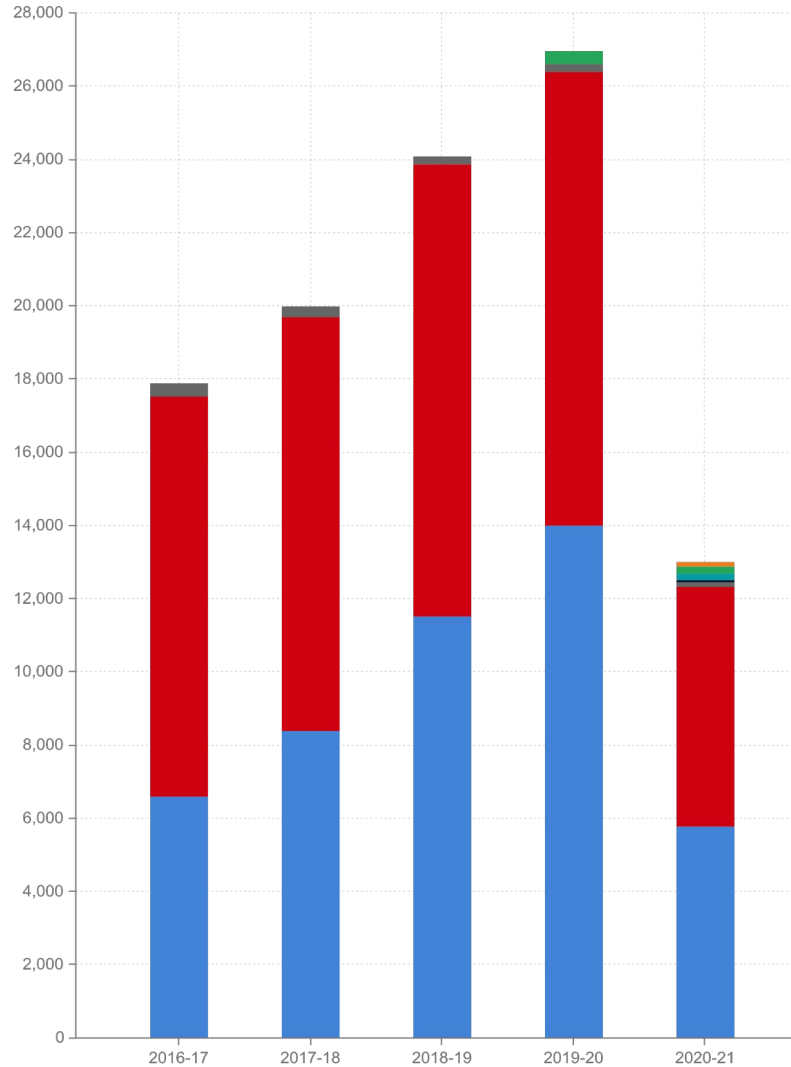


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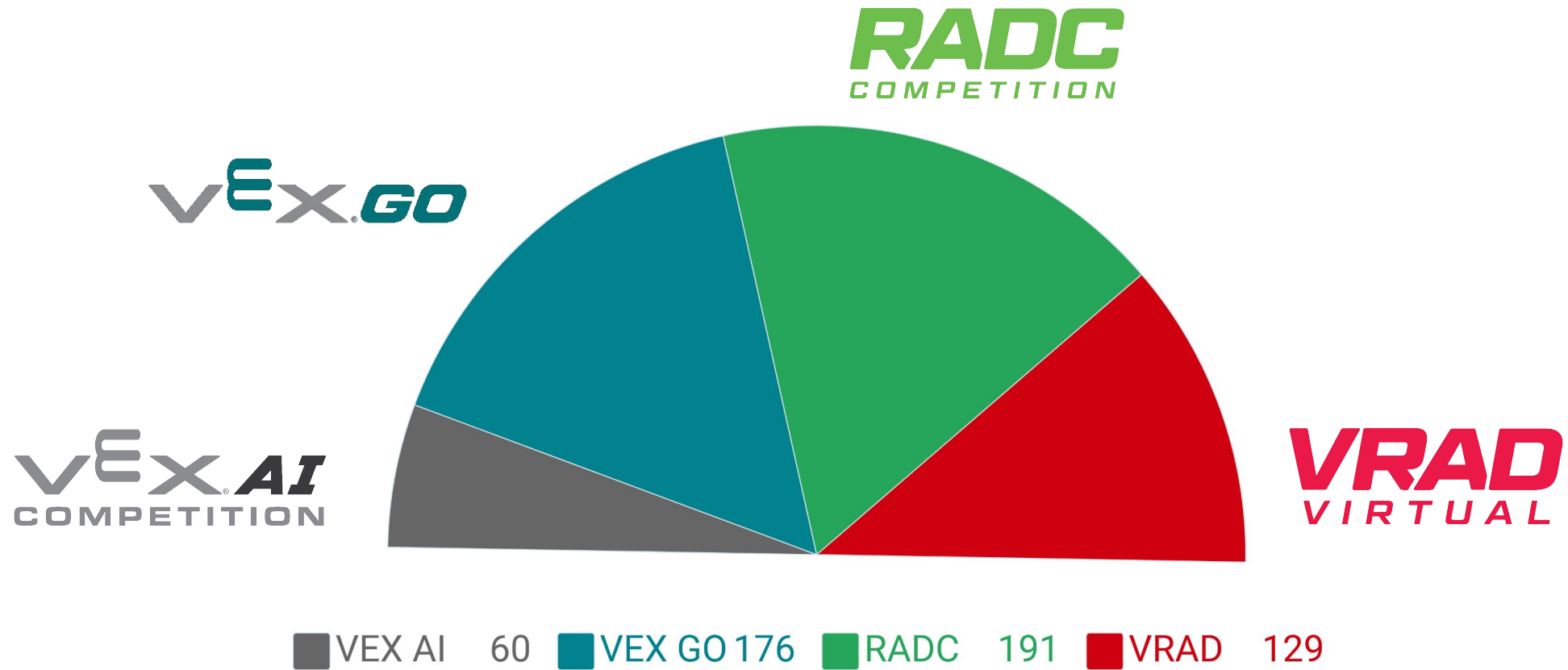
## Team and Program Growth Last Five Years

- At a glance of the new programs and participation of teams over the past five years.
- Even during the pandemic - we succeeded in engaging teams in our programs and created even more.



# 2020-21

## Programs and Teams







LARGEST ONLINE ROBOT CHAMPIONSHIPS



>>>> OVER  
**1,400**  
TEAMS

**MAY 17-29**  
vexworlds.com

**30** COUNTRIES  
REPRESENTED



**49** STATES  
REPRESENTED  
IN THE US



## 2021 Live Remote VEX Robotics World Championship

Over 1,400 teams from over 30 countries and 49 US states competed on first-ever streaming platforms allowing students to compete in a dynamic real-time, online setting.

Recognized by Guinness World Records® as the Largest Online Robot Championships record holder.

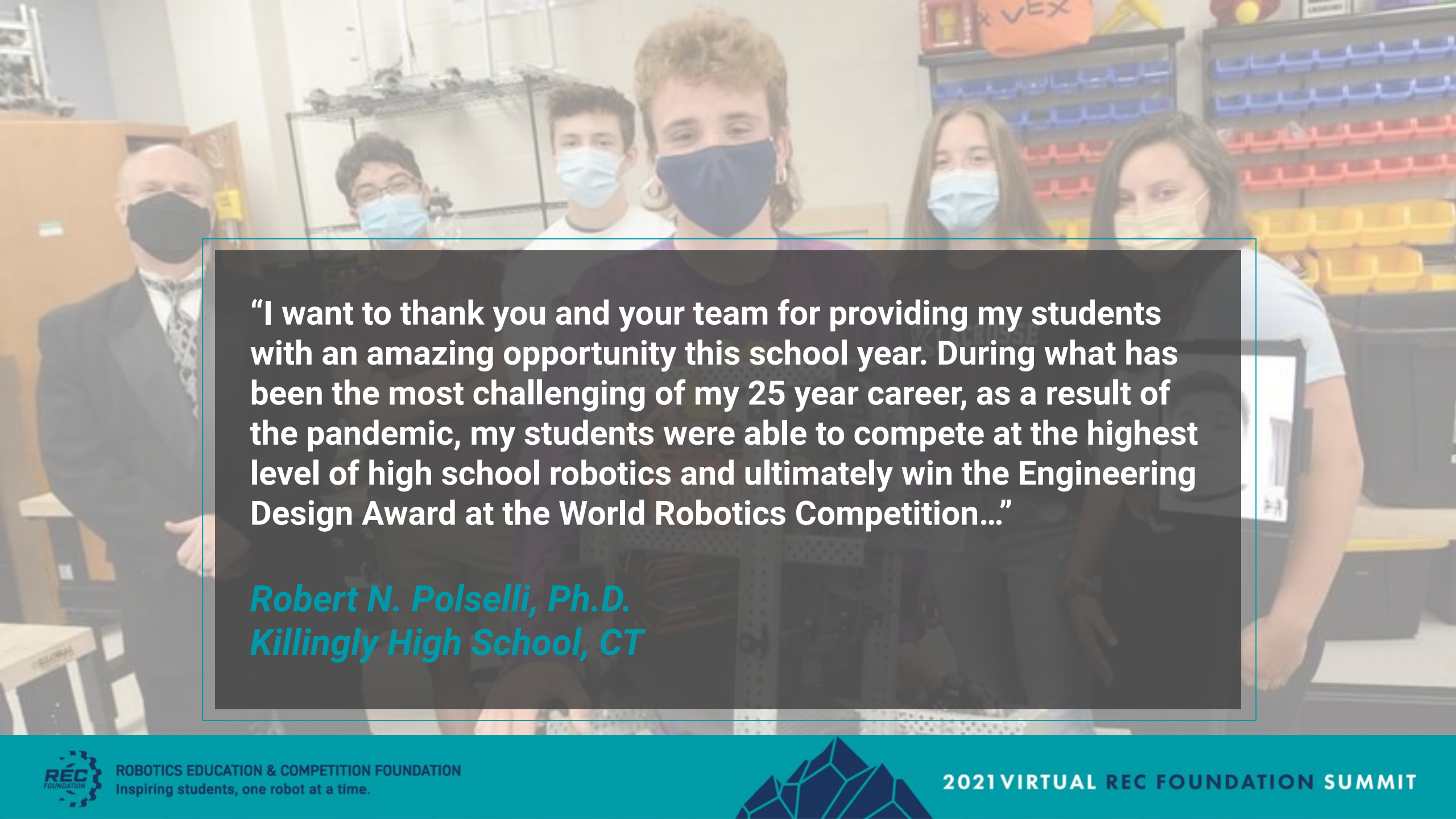
# Live Remote VEX Worlds

The Largest Online Robot Championship



Students also experienced many of the same World Championship traditions as past competitions such as the Parade of Nations along with Inspiration All-Star and Online Challenges awards ceremonies. New additions to the event included a Celebration of Diversity segment, VEX Innovator features, and daily live-streamed morning check-ins, and afternoon recaps on each day's highlights. Broadcast via YouTube live, the event and matches were accessible for the community to tune into matches to cheer on their teams on a global level and in real-time. All streams are available to watch on the REC Foundation YouTube channel.





**“I want to thank you and your team for providing my students with an amazing opportunity this school year. During what has been the most challenging of my 25 year career, as a result of the pandemic, my students were able to compete at the highest level of high school robotics and ultimately win the Engineering Design Award at the World Robotics Competition...”**

***Robert N. Polselli, Ph.D.  
Killingly High School, CT***





Thank you for an amazing season. I know the hard work it took to pull this off and can't say thank you enough for finding a way to make it happen for the kids. Know how much we appreciate you all.

- *Matthew Christian*



**THANK YOU**



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