

## 3rd Annual City of Indianapolis VEX Robotics Championship November 2014 – Bankers Life Fieldhouse Presented by Roche Diagnostics

### INDY'S WORKFORCE CHALLENGES

Sixty percent of the new jobs created in the 21st century will require skills possessed by only 20 percent of the current workforce. Job growth in the science, technology, engineering, and mathematics (STEM) industry in the U.S. is expected to triple by the year 2018, and there will be 1.2 million unfilled jobs in STEM-related fields. With an unemployment rate slightly higher than the national average, Indiana must find creative ways to work in partnership across sectors to bridge this gap and provide the skilled workforce needed.

Indianapolis students are the future workforce. VEX Robotics is a fun and exciting way to engage students and instill valuable life skills such as critical thinking, problem solving, and the ability to work well in a team all while being exposed to STEM concepts. VEX Robotics offers students an exciting platform for learning about areas rich with STEM career opportunities. Beyond science and engineering principles, VEX Robotics encourages teamwork, leadership and problem solving among groups. It also allows educators to easily customize projects to meet the level of students' abilities. The affordable VEX platform is expanding rapidly and is now found in middle schools, high schools and university labs around the globe.

**2x**

*The rate at which STEM jobs are expected to grow when compared to non-STEM jobs by the year 2018*

**LESS THAN**  
 $\frac{1}{3}$

*Of students in the United States are both interested in and capable of graduating with a college major in a STEM field*

### THE INDYVRC

Mayor Ballard instituted the City of Indianapolis VEX Robotics Championship (IndyVRC) presented by Roche Diagnostics to spark interest in STEM careers at an early age. The IndyVRC allows teams of students to work alongside engineers and other industry professionals to design, build, and program a robot to compete against robots from other teams in a sports-like game. Teams win awards for creating engineering plans, developing cohesive team “brands,” cooperating with other teams, and enhancing civic awareness and passion for STEM fields within their communities. The winning team also receives a bid to the World Championship, a large trophy, and college scholarships from the Rose-Hulman Technical Institute. The inaugural competition began with 38 high school teams from traditional public, charter, and private schools. By November of 2013, the 2nd annual city championship grew to include 48 high school teams, 40 middle school teams, and over 30 interactive booth vendors at the inaugural STEM Fair. This growth made Indianapolis host to the largest city-wide VEX robotics competition in the nation.



Our vision is for 2014 to be our biggest year yet with the 3rd annual championship including 60 high school teams, 80 middle school teams, and piloting 16 elementary schools, with overall team participation growing from 88 to 156 schools. We will recruit 50 interactive vendor booths from our local universities and companies at our STEM Fair to show students and the general public the possibilities available through STEM opportunities and careers.

### COMMUNITY IMPACT

The City's VEX Robotics Championship is an expression of our community's commitment to cultivating an interest in science, technology, engineering and math. The impact VEX has on students is both lasting and significant. The program provides students with a vast advantage in college and the workforce and has a proven record in engaging minorities, females, and underserved populations, all of which are lagging behind their counterparts in STEM fields.

The Mayor's goal is to not let finances be a barrier to participation. Sponsorship dollars go directly to support the school's participation in the event. Each team participating in the IndyVRC received a robotics kit which contained enough pieces and parts to build a competitive robot to bring to the Championship. Without the generous support of our sponsors, many of these teams would not be able to participate in the competition. We invite the business and philanthropic community to continue to support this initiative until all schools in Indianapolis have access to this program.



“VEX allowed me to make some of the best friends I have now...and **VEX has inspired me to work towards a career in engineering.** It has really made me who I am today.”

– Ellie Honius, Student at Warren Central High School

“This awesome event brings the people of Indianapolis together to **promote student involvement in STEM initiatives in a way not seen across the country.** Our city is invested in helping our children achieve their true potential while **creating an effective workforce for the future.**”

– Laura Dodds, Executive Director for TechPoint Foundation for Youth

“If there's one thing I want people to know, it is that to get involved with robotics competitions you don't need to know anything about robotics. **Robotics competitions are about developing students** - the robot is a byproduct - it's the students who win, not the robot.”

– Topher Congdon, Mentor & Engineer at Roche Diagnostics

### GET INVOLVED

Please direct all sponsorship questions to:  
 Stephanie Bothun  
 Director of Education Initiatives  
 Office of Mayor Greg Ballard  
 City of Indianapolis  
 317.327.7458  
 Stephanie.Bothun@indy.gov