BotsIQ Wisconsin Competition

Waukesha County Technical College
Saturday, April 6, 2019
10:00 AM

INSIDE THIS ISSUE:

PAGE 4  SPECIAL THANKS
PAGE 5  PAST COMPETITION WINNERS
PAGE 7  MEET OUR SPONSORS
PAGE 9  TEAMS

PAGE 9  RULES & STRATEGY
PAGE 10  STARTING A BOTSIQ TEAM
PAGE 10  VISION, MISSION, GOAL
We are your partner in building tomorrow.

Start Your Career at Mahuta Tool Corp

Mahuta Tool Corp.
N118 W19137 Bunsen Drive
Germantown, WI 53022

PH: (262) 502-4100
FX: (262) 502-4200
sales@mahutatool.com
www.mahutatool.com

Waukesha Metal Products is an innovative leader in precision sheet metal stamping and fabrication, component assembly, and tool and die manufacturing. With more than 45 years of experience in high quality precision metal stamping, metal fabrication, component assembly, and tool and die manufacturing, we are the agile, reliable provider of full service solutions.

ENGINEERED FOR DURABILITY AND STRENGTH™
www.WaukeshaMetal.com
“They say size doesn’t matter"

YEAH RIGHT!

75 ton crane capacity - 200,000 square foot facility gives us a unique advantage in the industry.

Custom Machining
Injection Molds
Die Cast Dies
Forging Dies
Engineering

1-800-624-1677
www.strohwig.com
Welcome to the April 2019 BotsIQ Competition at WCTC

Welcome to our 29th BotsIQ Wisconsin Competition. BotsIQ provides a platform to allow students to discover their skills in a competition using a combination of math, science, electronics, mechanics, and engineering in a team work environment. The matches are scored using a number of criteria which are explained in the Competition Terminology section of this program.

Destructive product testing is performed many times and in many ways on every product that consumers buy to ensure the ultimate safety and performance of that product. Likewise, these matches are a form of destructive product testing to ascertain the integrity of the design and construction coupled with the usefulness and ingenuity of each bot.

BotsIQ was formed to introduce students, teachers, and parents to the career opportunities available in high tech manufacturing. Most of these career opportunities are available with a two year or less technical college degree followed by apprenticeship and employment. As an apprentice, you can earn while you learn on the job. Compare this career path to a university student who takes 4 to 5 years to graduate with lots of debt and parental financing. Upon graduation, 52% of university graduates find no employment or a job that doesn’t require a university degree, but 99% of graduates of technical college advanced manufacturing programs do find meaningful employment.

While at the competition, take a look at the various technical degrees available from area technical colleges. There is a table set up with information and staffed with people to answer your questions. Many of the team mentors are from area manufacturing companies that need motivated job entrants that desire interesting work in a meaningful and well paying career loaded with benefits. Feel free to talk to them at the competition or give them a call.

Enjoy the competition, and please check out what the future may hold for you or your student in high tech manufacturing.
THANK YOU
BotsIQ Wisconsin Competition Committee and the volunteers that make this competition possible!

SPECIAL THANKS TO
Waukesha County Technical College

THANK YOU
May 2018 Competition Volunteers:

Barry Graff
Kyle Haug
Bill Krumenauer
Mitch Lochen
Connor Mahuta
Jeff Mahuta

Ken Mahuta
Lynn Mahuta
Dan Neuman
Frank Patti
Cynthia Perrault
Keith Perrault
John Puhl

Mike Retzer
Bill Schneider
Craig Seidel
Al Weiss
Jeremy Wichmann
Pat Yunke

THANK YOU

to the following companies, technical colleges, and associations for their assistance in the construction and continued maintenance of the arena:

Die Concepts Inc.
Journeyman Tool & Technologies, Inc.
KLH Industries, Inc.
Mahuta Tool Corp.
Reich Tool & Design, Inc.
Superior Die Set Corporation
Gateway Technical College
Moraine Park Technical College
National Tooling and Machining Association

Integrity Wire EDM, Inc.
JP Pattern, Inc.
The Laser Shop
MetalPro Corporation
Strohwig Industries
Toolcraft Co. Inc.
Milwaukee Area Technical College
Waukesha County Technical College
Tool Die, Machining Association of Wisconsin

Special thanks to Charlie Gieringer
MAY 2018 COMPETITION RESULTS

FIRST PLACE
Trainer, West Bend

SECOND PLACE
Kraller, Slinger

THIRD PLACE
Fluffy, Peshtigo
MAY 2018 DOCUMENTATION RESULTS

FIRST PLACE
Raptor, Slinger

SECOND PLACE
Samaritan, Slinger

THIRD PLACE
Trainer, West Bend
Platinum Sponsors

MAHUTA TOOL CORP., Germantown, WI  
Our goal is to forge partnerships with our clients by providing cost competitive products that meet their quality, engineering and delivery expectations. As a full-service manufacturer and supplier to national and local OEM’s, our focus includes metal stamping dies, die cast trim dies, tooling and fixtures with in-house design and build capabilities. In machining our strength is short run Wire EDM, CNC milling and turning. We believe in the apprenticeship program and currently have three apprentices as part of our highly skilled workforce also, two of our new hires have been involved in the BotsIQ program.

Mahuta Tool Corp. is ISO 9001 certified with a diverse customer base including: automotive, medical, construction, mining, food, sports equipment, electronics, power generation and machine building industries in both tooling and CNC contract machining.

STROHWIG INDUSTRIES  is a leading manufacturer in the technology driven advanced manufacturing fields of machining, engineering, and large tool manufacturing. We offer training in a growth environment while providing secure career and high wage opportunities.

We are proud to sponsor Bots IQ Wisconsin and the National Robotics League because we feel it is important that students get exposure to the high paying careers in advanced manufacturing. Manufacturing plays an important role in our state and our country.
Platinum Sponsors Continued

Vrakas CPAs + Advisors has been providing certified public accounting and business advisory services since 1971. With over 70 professionals, our experience, size and resources enable us to provide services in a variety of areas including:

✔ Assurance
✔ Tax
✔ Business Valuations
✔ Small Business Accounting
✔ Computer Consulting

We specialize in working with closely-held businesses and their owners in a variety of industries including, construction, manufacturing & distribution, dealerships, professional services, real estate and retail. We also have extensive experience working with Private Equity and ESOP owned companies.

With our continued growth, Vrakas recently opened up a second location in Kenosha to better serve our Racine/Kenosha/Northern Illinois client base and to further capitalize on the area’s growth. We look forward to continuing to grow our brand, as we remain fiercely independent in the southeastern Wisconsin and northern Illinois marketplace!

Gold Sponsor

With over 45 years of manufacturing experience, Waukesha Metal Products is an international full service metal stamping and fabrication partner dedicated to delivering high quality and best value products to our customers. Headquartered in the Greater Milwaukee area, Waukesha Metal Products operates out of three modern manufacturing facilities: a stamping and tooling facility in Sussex, a fabrication facility in Grafton, and stamping, tooling, and fabrication facility in San Luis Potosí, Mexico. Over 180 dedicated employees armed with controlled processes provide production seven days per week, helping customers with everything from short run spec work and prototypes to custom metal fabrication and large volume production. Waukesha Metal Products handles projects from conception to completion, from the design and engineering stage, through production, to value added services such as welding, anodizing, machining, plating and much more.
Judging & Scoring

- 3 Judges score the Bots. This eliminates the possibility of tie.
- Points are awarded for Control, Aggression and Inflicting Damage
- A Bot may win a match by a Technical Knock-Out (disabling the other Bot) or by Decision (highest score)

Basic Rules for 15lb Bots

- Bots must weigh less than 15lbs & fit through the Arena door
- Bots can use pneumatics (compressed air)
  - Hydraulics (pressurized fluids) are not allowed
- Guns, Explosives, Acids and Radio Jamming devices are not permitted
- Bots can be made from most materials
  - Organic materials such as food products are not allowed
  - Harmful or dangerous materials such as Uranium are not allowed

Strategy

- Matches are 3 minutes long
- The goal of a Bot is to disable the other Bot before the end of the match. A 10 second countdown will be started if a Bot does not show any movement. If the Bot does not move within this 10 second time frame, the match ends with a Technical Knock-Out.
- A Driver may Tap-Out. A Tap-Out is usually done when a Bot is about to sustain considerable damage. A Tap-Out will end the match with a loss but it may save the Bot for an upcoming match.
BotsIQ Vision

BotsIQ, An Educational Foundation For Advanced Manufacturing Careers.

BotsIQ Mission

BotsIQ Wisconsin (BotsIQ) encourages young adults to create and explore, giving them an opportunity to problem solve using science, technology, engineering, mathematics, mechanics, computer-aided design, metal fabrication, physics and project management in a teamwork environment.

The BotsIQ challenge is to create and build a robot to outscore other robots. Students participate in competitive environments, with safety and operational limitations to test robotic designs. The excitement of competition gives the students an opportunity to utilize existing educational resources as well as explore learning opportunities not currently offered in a traditional educational structure. Teams take ownership of creating, building and maintaining their remote controlled robot.

BotsIQ Goal

BotsIQ’s goal is to introduce career opportunities by combining Apprenticeship with a Technical College degree which will lead to a fulfilling Advanced Manufacturing Career.

BotsIQ matches each team with a volunteer or sponsoring company as a coach and mentor. Mentors and Sponsors provide seminars and tours to demonstrate how technology has advanced traditional skill sets into higher educational opportunities.

BotsIQ allows each student to discover their aptitude and attitude for an advanced manufacturing or engineering career.

How do I get my school to adopt the BotsIQ program?

It’s as easy as Bot-A-Bing!

Take this back to your school and let them know you’d love to have a BotsIQ team.

Help your school find an instructor to supervise the team.

Contact Erin with BotsIQ Wisconsin for all other details.

262.391.1028 or botsiq.wi@gmail.com
Does your accountant have what it takes to compete?
Maintain a competitive edge.

vrakás

445 S. Moorland Rd., Suite 400 Brookfield, WI 53005 | 262.797.0400 | www.vrakascpas.com