

roundup | DIGITAL NEWSLETTER

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JAKTOOL CELEBRATES 20 YEARS OF SUPPORT TO RUTGERS FORMULA RACING PROGRAM

Schools may be closed, but the formula SAE competition is still up and running! Collegiate Design Series has shifted the 2020 Formula SAE events onto a virtual platform. Every year, JAKTOOL puts a great amount of time and resources into the Rutgers Formula Racing as a proud sponsor. This year will be no different!



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JAKTOOL LLC ANNOUNCES APPOINTMENT OF CRISTY RICHARDS AS EXECUTIVE CHAIR OF RUTGERS MECHANICAL & AEROSPACE ENGINEERING ADVISORY



NEW JERSEY, 4/25/2021

Rutgers Mechanical & Aerospace Engineering Advisory Board has nominated and appointed a new Executive Chair, Cristy Richards, President & CEO of JAKTOOL. The Executive Committee, comprised of industry and academic leaders, is an ABET (<https://www.abet.org>) requirement for accredited colleges and universities in STEM. The board's role is to provide industry perspective, mentorship, and career opportunities to current students with the goal of developing mature, applied, relevant graduates, to ensure top-notch Rutgers graduates.

"Cristy is an excellent leader with strong communications skills. Her leadership strengths include creating collaborative teams, empowering team members, and setting realistic, yet stretch goals."

Before taking on the role as Chair of the Advisory Board, Cristy was a member of the Executive Committee and was responsible for the Mentoring Program. She contributed to the overall excellence of this Board, and simultaneously added many new members in mentoring positions – even through a year+ of Covid restrictions on meetings and events. As a result, the board is well-positioned for growth as the impact of Covid begins to wane.

I expect the future will see continued growth in student programs, in engaged alumni, and in the overall impact the board has on academics and success of the students of Mechanical & Aerospace Engineering. Cristy was our top candidate for the position of Chair.

Cristy is very well connected to the department leadership and faculty. Those connections, and her personal and engaging style will be assets as she takes the helm." Says Ken Johnson, former Board Chair and VP Lockheed Martin (Ret)

COMPLETION OF OVERMATCH FOR US WARFIGHTER

We have reached an exciting milestone here at JAKTOOL! In our efforts to ensure overmatch for the US warfighter, JAKTOOL has completed construction of a custom apparatus for in-house scale up of projectiles.

After a year of hard work and dedication, we delivered the first shipment of hardware to our customer. A recognition lunch was organized to celebrate this significant achievement and applaud the efforts of everyone involved. Great job team!



7 MONTHS, 3,000 PARTS, 1 GOAL

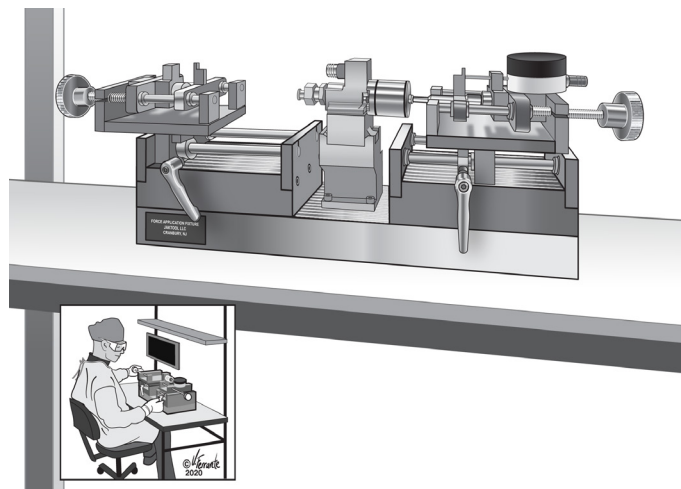
Ensuring Overmatch for the US Warfighter

JAKTOOL NAMED AN "ROI INFLUENCER" BY ROI NJ MEDIA

Manufacturers played a huge role in helping New Jersey survive during the COVID-19 pandemic. JAKTOOL is honored to be recognized as one of the companies that stepped up in the fight against the pandemic.



INNOVATION NEWS; CONTROL VALVE TESTING AND ASSEMBLY FIXTURE



James, one of our mechanical engineers, designed and manufactured a novel mechanism for control valve testing and assembly.

This fixture eliminates the need to switch between two separate setups by using one setup to measure both force and displacement. This advanced feature shortens the assembly process and increases accuracy and reliability.

JAKTOOL RECEIVES GREAT PLACE TO WORK CERTIFICATION



Our employees have spoken! Our company culture is amazing and our Great Place to Work Certification confirms it! JAKTOOL works hard to create a culture that fosters hard work, passion, and fun. Thank you to our people who make our culture great.

CEO CRISTY RICHARDS PRESENTS TO WOMEN LEADERS IN STEM

Ocean County College's Panel Discussion with Women Leaders in STEM was a great success! If you are looking for guidance on how to move into a STEM profession or advance your career in STEM, take a listen!



"Be curious, ask questions, and find yourself a mentor. Know that there are a lot of people who want to mentor so don't be shy about asking questions. It's a mutually beneficial

relationship; you are there to help each other and they want to see you succeed."

~ Cristy Richards

5 WAYS: THE JAKTOOL COMPETITIVE ADVANTAGE

RETHINKING MANUFACTURING

Struggling to get your idea off the ground? Striving to develop your idea into a proof of principle prototype? JAKTOOL possesses the resources you need to mature your concept into a commercial quality, proof of principle prototype.

JAKTOOL has grown over 25 years into one of the Northeast's premier product development, engineering and precision prototyping companies on the merits of passion, talent and dedication. JAKTOOL operations run with client expectations at its core, delivering competitive advantages to clients by means of accelerated speed to market.

As a prospective client, you might be thinking to yourself, JAKTOOL sounds great in theory but promises of dedication and talent aren't enough to proceed with a collaboration. You want proof; you want the lowdown on our methods and tactics. Allow us to be your guide, to ask the questions for you and acquire the answers you're looking for.



We will touch on 5 ways JAKTOOL is delivering competitive advantages by the application of:

- ✓ Collaborative Engineering
- ✓ Innovative Design
- ✓ Quality Management
- ✓ Strategy & Execution
- ✓ Design Transfer



RYAN HOLLYWOOD

Ryan, an ten-year veteran of JAKTOOL and our facility's Operations Manager - Design and Manufacturing Engineering, leads in-house prototype efforts through the management of in-house manufacturing engineers.

We sat down with him, to discuss collaborative engineering and how JAKTOOL is using this approach to advance speed to market.

Communication plays a vital role in effective relationships. Whether it be internal, with a client or with a supplier, it's fundamental to company success.

Internally, JAKTOOL is a one-stop-shop for design, system-level engineering and prototyping. The design, manufacturing, quality control and procurement departments work under the same roof, reducing layover time between each phase. At times, JAKTOOL is the only company that will provide clients with a quote for high fidelity prototypes as other companies lack the skill set required.

Every engineer employed at JAKTOOL is equipped with the qualifications needed to do every aspect of the job. Our Prototype Manufacturing Department can spec out material and tooling for a print, and perform an inspection to ensure the part is conforming. This decreases the chance for miscommunication and speeds up the production process.

On a side note, as a "rookie engineer", there were terminologies communicated in our conversation that required further explanation for my enlightenment. Conformance testing was one of those terminologies. What does the process look like? How does one know if the part will meet expectations? Ryan explained several of JAKTOOL's methods to ensure compliance.

The Prototype Manufacturing Department fits mating parts together to confirm compliance with the defined standards. Some clients require further testing, calling for 100%-dimension inspection through JAKTOOL's QC Department where CMM machines, vision systems, universal test machines and other custom specialized equipment inspect the parts for validation. The results are then analyzed and confirmed.

JAKTOOL's engineers and project managers are in constant communication with their clients. Every job has a precise timeline for delivery and completion with weekly, sometimes daily, status updates and unlimited design input.

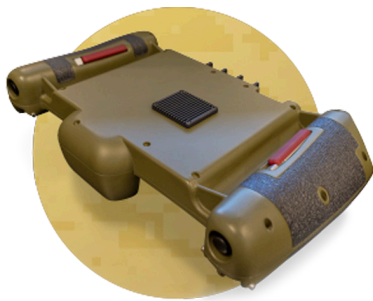
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I 5 WAYS: THE JAKTOOL COMPETITIVE ADVANTAGE

JAKTOOL has the ability to work with different levels of quality requirements. Some projects require customer prints, other prints might entail model-based definition and critical interfaces or perhaps performance requirements. Every project is slightly different. With continuous input from the client, it's all achievable. Through an open line of communication, JAKTOOL is able to work with the client to create custom customer dimensions, while cutting costs, and saving time.

With the application of new technologies and the implementation of best business practices, JAKTOOL sustains its mission to deliver complete advantages to its clients. As the market grows increasingly competitive, JAKTOOL is utilizing partnerships with vetted suppliers to accelerate the development of prototypes and deliver them to clients more rapidly and efficiently with the same high level of quality.



UNMANNED GROUND VEHICLE (UGV) CONTROLLER

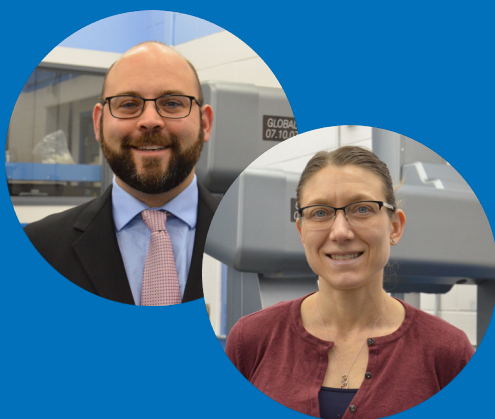
Most recently, JAKTOOL connected with a client in need of manufacturing services to prototype a remote control for an Unmanned Ground Vehicle (UGV). The client requested specific material properties concerning color, stiffness and fidelity. After conversing with the client to understand the criteria, JAKTOOL reached out to a reliable additive manufacturing supplier and provided them with the budget and timeline. An engineer's role at JAKTOOL is comprised of many varying responsibilities. Besides being an engineer, employees are expected to act as a liaison between all moving parts of a project, allowing for a smooth transfer of information between all involved parties.

JAKTOOL worked with the supplier and the client to narrow down material selection and develop a strategy to determine which features were high-risk, requiring post-machining. Once the shell was completed, JAKTOOL was able to custom create fixturing and post machine the parts needed to complete the job. The engineers were able to compress a 32-week development cycle into 10 weeks due to JAKTOOL's unique capability to simultaneously manufacture components while creating designs. With all departments under the same roof, JAKTOOL is able to provide clients with prototypes quicker than the industry standard.

As demands rise, engineering practices must adjust to sustain the increasingly exigent criteria. JAKTOOL is spearheading this undertaking, and raising the bar on industry standards, through the application of all-in-one practices managed by experts in the field. These resources allow JAKTOOL to provide custom tooling and fixturing to their clients, cutting timelines in half, and eliminating extra costs while preserving quality. However, even with an accomplished staff and first-rate resources, mistakes can be made through the smallest of communication errors. JAKTOOL ensures a clear and open communication line between each acting party, significantly proliferating chances of success.



A MESSAGE FROM JAKTOOL'S JEFF & CRISTY...



We hope you enjoy reading about the many activities that have happened here over the last 12 months in this inaugural issue of the JAKTOOL roundup digital newsletter. As 2021 comes to an end, we'd like to take this opportunity to express our gratitude to our many valued clients for placing their confidence and trust in JAKTOOL, to serve their product development and engineering needs, and to our supply chain partners for their ongoing support and contributions. Finally, we'd like to express our heartfelt appreciation to all the craftsmen, engineers, and project managers who make up the JAKTOOL family for their passion, talents, and dedication.

JEFF KINSBERG | *Chairman/COO/Company Founder/Owner*

CRISTY RICHARDS | *President/CEO/Owner*

JAKTOOL EXPANDS PROTOTYPE CAPABILITIES

New Swiss Screw Machine

JAKTOOL's new Swiss Screw machine gives us the ability to support our manufacturing process plan and a process audit to de-risk for production during the prototyping process. Client benefits of the equipment include achieving more precise and complex production specifications, reduced production timelines, and program cost efficiencies.

We recently partnered with the U.S. Military for a next-gen ammunition development program that utilized the new capabilities of the Tsugami lathe. It enabled us to develop a manufacturing process plan that was integral to the success of the program as part of the pilot facility. A win for everyone involved.

That's "The JAKTOOL Way." Delivering to customers' most demanding specifications with the highest quality products.



JAKTOOL RECEIVES WOMEN OWNED BUSINESS DESIGNATION BY WBENC



The Women's Business Enterprise National Council (WBENC) is a leading non-profit organization dedicated to helping women-owned businesses thrive.

JAKTOOL is proud to be certified as a WBENC-Certified Women's Business Enterprise.

At JAKTOOL we are proud to celebrate and support the advancement, success and achievements of all women today and every day.