2018 Mastercam Wildest Parts Competition Winners

Each year we eagerly await the arrival of the Wildest Parts Competition entries. Seeing what the students create and getting to know them and their instructors through their entries is one of the best parts of what we do. There are a lot of truly inspiring students out there and we can't wait to see what they'll do next. The entries are packed up and will be headed to the Association for Career and Technical Education (ACTE) CareerTech VISION conference in San Antonio, TX where they will be proudly displayed in our booth. They will spend the rest of the school year traveling to other shows such as the International Technology and Engineering Educators Association (ITEEA) conference in Atlanta, GA.

Thank you to all the entrants and to their instructors!

We will be contacting the winners shortly to arrange delivery of their prizes.

Secondary Division

1st Place – Spiral Didgeridoo– Caelen DeVall – Hamilton High School – Instructor Brent Holmes

A didgeridoo is a large wind instrument, typically between one and two meters in length, and are long and hard to transport. Caelen plays the didgeridoo and owns one that is 1.1 meters long, and is fairly hard to transport. He needed a more compact instrument to bring around with him. So, his idea was to design a more efficiently spaced didgeridoo, one that has been wrapped to fit into a smaller space and function as an instrument. He applied Mastercam's Dynamic Optirough toolpath for the inside of the instrument, and applied both rough and finish toolpaths for the outside.



2nd Place – Fly Tying Kit – Grayson Weber – Capital High School – Instructor Jim Weber

Grayson is a lifelong fisherman and made a complete fly tying kit that fits into a box, and therefore you have all you need to tie flies for fly fishing. The vice was made out of aluminum and anodized to match the Mastercam logo. The wooden cabinet features Mastercam Art on the lid and sides. The pockets within the drawers feature custom fitted compartments for hooks, feathers, dubbing, and thread; all the materials you would need for tying flies. Grayson learned a lot about 4th axis machining and how to machine long parts, as well as Mastercam Art.



3rd Place – Dirt Bike Pegs – Zane King – Capital High School – Instructor Jim Weber

Zane decided to make dirt bike foot pegs because he loves dirt biking and wanted a custom, one-of-akind part for his dirt bike. The part was machined on a 3-axis machine so Zane had to figure out how to machine the different angles on the pegs on the 3-axis machine. The next challenge was figuring out in what order to machine the different sides. He had to rotate the part five times during machining, each time making sure the origin was right, as well as all the tools and tool offsets. Zane said he learned that there is a lot of things going on with machining the pegs, even for a small part. He also noted that although there were a lot of difficulties, if you keep working, you can sooner or later make it work out!



Postsecondary Division

1st Place – Vacuum Engine – Andrew Nicosia – Erie Community College – Instructor Nathan Witkowski

Andrew wanted to challenge himself with a complex machining project for his Advanced CNC class. This engine is designed to run off a butane or propane torch held in front of the small hole in the top of the cylinder. There are 24 different parts in this assembly, and a total of 32 mill programs and 5 lathe programs to create the engine. Andrew learned how to push the machine and cutting tools to their limits in Mastercam to create the best surface finish possible and create parts as fast as possible without breaking tools or throwing parts off the vise. He says that Mastercam took his abilities to a whole other level and showed him what he is truly capable of making.



2nd Place – Gorilla Face – Sam Galliart– Pittsburg State University – Instructor Jordan Backs

Sam has recently been exploring the world of investment casting. This inspired him to produce his very own injection mold for use on the manufacturing department's injection wax machine. Pittsburg State University's mascot is a gorilla named Gus, who is the star of Sam's project! Sam started with a 14" tall solid wood carving of a gorilla bust. From there, he made a silicon mold and produced cast concrete and composite parts. Sam has also machined a couple smaller molds for bottle openers with a 1" gorilla face on them, as well as other parts. Sam said this was a challenging project and he had to explore an area of manufacturing outside his normal work.

