# Mastercam.

# 2019 Mastercam Wildest Parts Competition Winners

Each year we eagerly await the arrival of the Wildest Parts Competition entries. Seeing what the participants create and getting to know you through your entries is one of the best parts of what we do. There are a lot of truly inspiring students and professionals out there, and we can't wait to see what you will do next. The entries are packed up and will be headed to the Association for Career and Technical Education (ACTE) CareerTech VISION conference in Anaheim, CA, where they will be proudly displayed in our booth. They will spend the rest of the year traveling to other shows around the world!

Thank you for entering the competition - and can't wait to see what you come up with next year!

We will be contacting the winners shortly to arrange prize delivery.

# SECONDARY DIVISION

1st Place SPRINTING SPIKE BASE PLATE – *Riley Traver – Van Buren Tech – Instructor Gabriel Kooyers* 

Sports are a big part of Riley's life, and he's been running track since 7th grade and will continue into college next fall. He entered the base plate of his spikes, and it was the most challenging project he has ever undertaken!

## 2nd Place

#### CRYPTEX - Sebastian Johnson - Hamilton High School - Instructor Brent Holmes

A cryptex is a portable vault used to hide secret messages. It's a stone cylinder comprising five doughnut sizes disks of marble that have been stacked and affixed to one another with a delicate framework. Sebastian's entry is a Da Vinci Cryptex and you must solve a puzzle in order to open it!

#### 3rd Place STIRRUPS – Savannah Schneider – Capital High School – Instructor Jim Weber

Savannah has been riding horses since she was 5 years old. She wanted to buy custom stirrups but wasn't drawn to any that were currently available. So, when she heard about the Wildest Parts, she knew what she would make. She ran into some challenges like the aluminum flexing while removing material, as well as tool offset issues. She learned a lot about machining and how to overcome any mistakes that are made!

# POSTSECONDARY DIVISION

1st Place ENGINE BLOCK – Colin May – Erie Community College – Instructor Nathan Witkowski

Colin has wanted to make an aluminum V8 engine block for a while, and he comes from a family that has been in the manufacturing industry for more than 50 years. He had to juggle work, classes, and finding the time to work on his engine block. But he finished it and is extremely proud of what he has accomplished!









#### 2nd Place

#### OIL PAN - Robert Englehart - Washington State University - Instructor Kurt Hutchinson

Robert joined FSAE his sophomore year in college and has always had a passion for cars. He decided that the oil pan that they had to make would be a great entry, but they wanted to add a windage tray and cooling fins for the extra WOW factor! He used Mastercam's OptiRough toolpath and is very proud of how his part came out.

## **3rd Place**

#### BMX STEM - Ryan Speidel - Erie Community College - Instructor Nathan Witkowski

Growing up, all Ryan wanted to do was ride his bike and was constantly searching for the perfect combination of strength and weight for his bike parts. So, Ryan decided he was going to make a BMX stem in his Advanced CNC class. He used Mastercam's high speed Dynamic Contour toolpath. After this project, Ryan said he is happy to say that he has a much better grasp on using Mastercam!

# PROFESSIONAL DIVISION

#### 1st Place BONE PLATE – Yung-Cheng **Lee** – Shih-Cheng Precision Technology

Yung-Cheng entered a bone plate and said that because of the need to fit the human bone accurately, there were many challenges to overcome such as irregular complex surfaces, multi-angle drilling, and more.

#### 2nd Place LOGO PUCK – Zane Decker – Cincinnati State Technical and Community College

The focus on Zane's part was to use toolpaths and tooling marks as artistic embellishments. The puck was used to demo 2D toolpaths for his students, such as Dynamic Mill, 2D Surfacing, Contouring, Chamfer, and Engraving.

# TEAMS DIVISION

#### 1st Place STEAM ENGINE – Seth Culp – Rowan-Cabarrus Community College – Instructor Jason Hill

Seth's team (Seth, Gabriel, Chandler, and Trevor) decided that the USS Monitor Steam Engine would be the most challenging and fascinating model to design. One of the biggest challenges they faced was making sure everything fit and worked together to make the engine, and they had less than a semester to design in SOLIDWORKS<sup>®</sup> and finish the part in Mastercam.

# 2nd Place

#### SHARK BOTTLE OPENER – Tyler Dorsey – Cincinnati State Technical and Community College – Instructor Zane Decker

Tyler's team (Tyler, Kaman, and Christopher) entered a multi-tool promotional piece that functions as a bottle opener, wine opener, flathead screwdriver, multi-tool drive, wine cutter, and paper cutter! The team wanted to make something that was useful, practical, and aesthetically appealing. They used Mastercam's Dynamic OptiRough toolpath and learned a lot about what the software is capable of!













#### 3rd Place GEARS – Blake Bishop – Cincinnati State Technical and Community College – Instructor Zane Decker

Blake and Jeff's goal was to make a decorative piece, so they decided to design a part with gears. They designed the part in SOLIDWORKS and imported it into Mastercam. Their biggest challenge was creating toolpaths that maximize efficiency while giving them a clean finish. They learned the importance of different toolpaths to get better finishes, and the use of Rest Mill to have faster feed times without sacrificing quality!





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