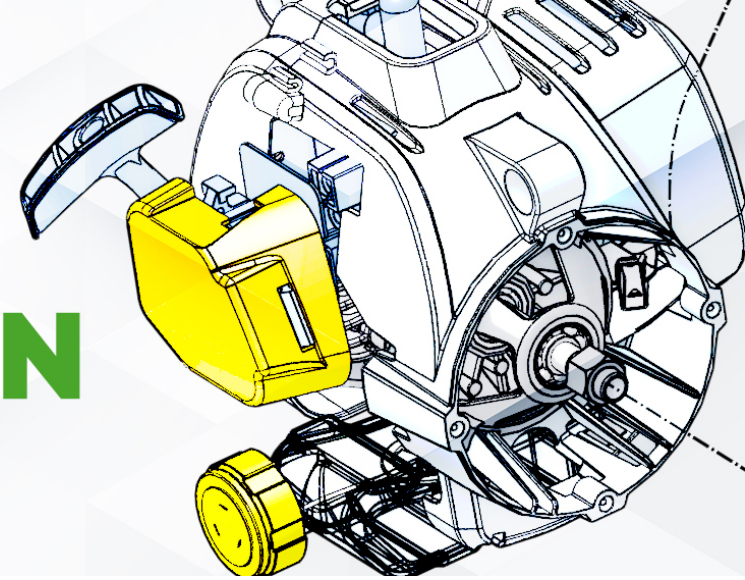
ONSHAPE DESIGN COMPETITION 2022



OVERVIEW

It's time for our second annual Onshape Design Competition! We want to recognize the incredible things that you - our users - are creating with Onshape. Whether on the job, in class, or just for fun, millions of hours have been spent modeling in Onshape and we want to celebrate what you're making!

For this year's competition, we are asking you to share your best designs and custom features that show off your CAD skills and Onshape knowledge! Submissions should fall under the following three categories:

- Part Design — Use sketches and features to create parts.
- Assembly Design — Use mating techniques and define a product structure.
- Custom Feature — Use Onshape's FeatureScript, an open-source programming language, to create a custom CAD feature.

Whether it is a new model just for this competition or a document you already have, we want to see your designs that demonstrate engineering techniques and Onshape best practices. Submissions should be functional and leverage some of the advanced capabilities of Onshape.

Prizes will be awarded to top submissions in each category! We will also have a Best Overall and Best Student Design Award. Prizes will include 3D Printers, Onshape swag, certification exam vouchers, and the legendary Onshape Championship Belt.

WHO IS ELIGIBLE TO PARTICIPATE?

Professionals, hobbyists, students, educators.

All participants must be registered for **Onshape Live 22**. You may submit a design modeled by a group as long as all criteria for group participation listed below are met.

KEY DATES

Submissions Open - January 11th, 2022
Submissions End - February 1st, 2022
Winners announced at Onshape Live - March 2nd, 2022

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GENERAL RULES

- The entry must be created and produced solely by the individual and/or team members listed on the submission.
- Users can submit multiple submissions.
- All custom parts must be modeled in Onshape by the user or group that is submitting to the competition.
- You may import commercial off-the-shelf (COTS) components from suppliers as needed by your design.
- Submissions will be judged and scored based on completeness and complexity, best practices, functionality, and awesomeness. See criteria below for more details!
- All submitted documents must be made public or shared via link sharing.

GROUP SUBMISSIONS

- Groups are limited to 5 members
- The submitter must have obtained permission from all contributors prior to submitting
- Contact info of all contributors must be provided in the submission process

SUBMISSION GUIDELINES

- **Identify your Category**. For each submission you will need to identify which category your submission should be considered for. Keep in mind the criteria for each category when finalizing your Onshape document.
- **Submit your Document(s).** You will need to provide a link to your Onshape documents as outlined below:
    - During your submission process you will provide a link to one Onshape document with your main design or custom feature.
    - If your submission links to other documents and you want them to be considered as part of your submission, you will be able to provide the links to those documents. Make sure that those documents are also public or that link sharing is turned on.
- **Tell us About your Submission.** In addition to your Onshape document(s), you will also need to provide short answers to three questions:

What problem or role is your submission solving? Ideas to include:

- Why is this problem important to you?
- What impact would solving this problem have?
- Does it improve on an existing design?
- Who would your submission help?

How does it solve it? Ideas to include:

- If applicable, how is this submission manufacturable?
- What are the key features of your submission?
- What is unique about the way your design solves this problem?

Please describe your design process. Ideas to include:

- If you worked as a group, how did your group work together and collaborate on the design process?
- How did you exhibit best practices in your modeling or programming?
- What Onshape capabilities contributed to your design?
- Were there any interesting design iterations along the way?

FILL OUT THE SUBMISSION FORM

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Categories			
Criteria	**Part**	**Assembly**	**FeatureScript**
Completeness and Complexity of Design	• Is this design complete? • Does it use a wide range of features? • Do you leverage configurations? • Are materials and appearances assigned?	• Is this design complete? • Does it use a wide range of features and mate types • Do you leverage configurations? • Does it include a complete BOM? • Are materials and appearances assigned?	• Can someone use the feature(s) successfully from the feature dialog alone? • Can someone fix errors from the information in the errors reported? • Is there helpful documentation? • Did this require complex problem solving?
Best Practices	• Are features clearly organized and labeled in the Feature List? • Are Onshape/CAD best practices followed? • Can the design process be followed through versions and branches? • Were any custom features used in the creation of your design?	• Are parts and subassemblies clearly labeled? • Are Onshape/CAD best practices followed? • Can the design process be followed through versions and branches? • Were any custom features used in the creation of your design?	• Is code split into functions where appropriate (rather than duplicating similar code)? • Is the purpose of each section of code clear from reading (through function names, comments, etc)? • Is slow code eliminated when simpler methods are possible? • Could another FeatureScript author reading this code know how to make reasonable changes?
Functionality	• Could the design solve the problem described in the submission? • Were any extras such as PDFs, Videos, or Images included to show functionality? • Could it be manufactured?	• Could the design solve the problem described in the submission? • Were any extras such as PDFs, Videos, or Images included to show functionality • Assembly uses complex mechanisms to show realistic motion • Could it be manufactured?	• Does it work well in multiple kinds of cases? • Does it do the most reasonable thing in edge cases? • Do features after the submitted feature(s) break when the submitted feature(s) or earlier features change? • Do the submitted feature(s) break when features before it are changed?
Awesomeness	• Is this design a novel and creative concept? • Does it solve the problem in a unique way?	• Is this design a novel and creative concept? • Does it solve the problem in a unique way? • Does it have an attractive, exciting, and/or realistic appearance?	• Do the included examples showcase what's great about it? • Does it accomplish something hard to do with normal modeling? • Does it showcase the power of FeatureScript and Onshape?