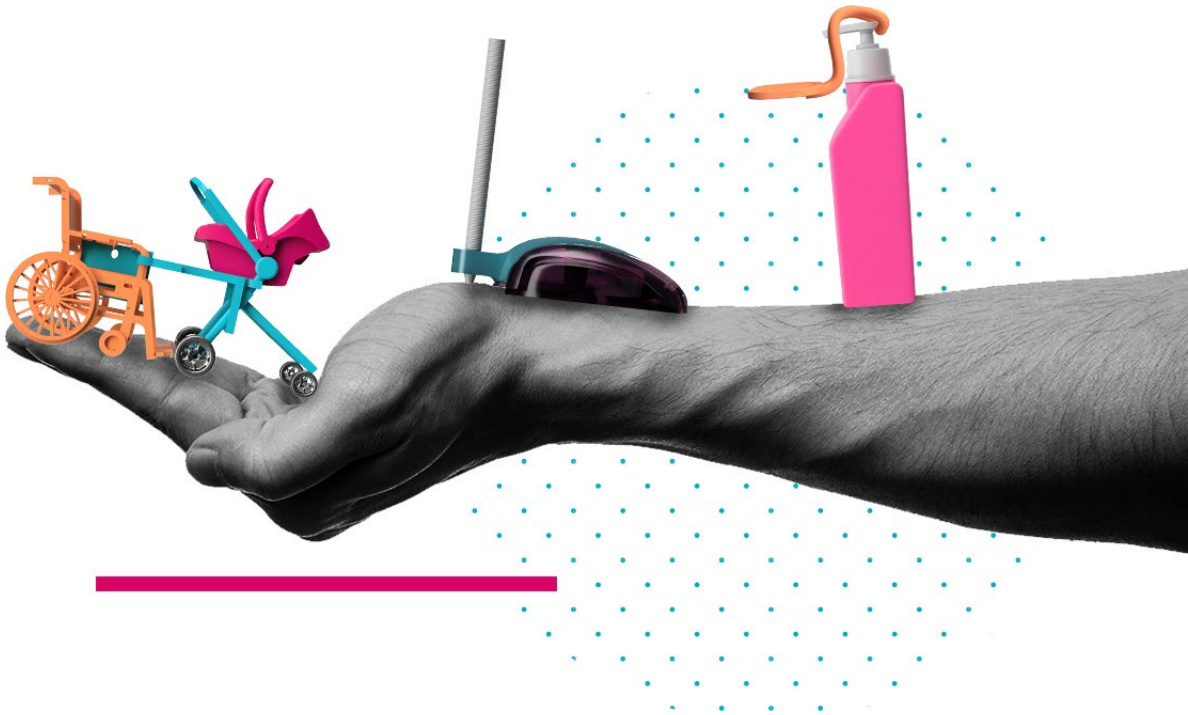
make:able

2026 Brief



PrintLab. AUTODESK

The Brief

Start Date: 16th May 2025 | Submission Deadline: 15th May 2026

Design and make a 3D printed product or prototype that improves the day-to-day life of someone with a disability or the elderly.

Categories

There are 3 categories based on age groups – under 14, 14-18 and over 18. The over 18 age category welcomes students, educators, hobbyists, professionals and anyone else interested in participating.

Teams

You may work in teams of up to 5 people in the same age category.

Audience

You must design a product for a real end user (E.g. Someone in your local community). If you cannot find an end user, you can opt to design for a Make:able Champion. Make:able Champions are people with disabilities who have shared their story and day-to-day challenges within the Make:able Challenge toolkit.

3D Design

The design process must include the use of either Tinkercad or Fusion 360 software and the digital 3D model produced should be 3D printable.

3D Printing

A physical 3D printed prototype must be created. 3D printing can also be combined with other materials and processes, such as electronics, to create the product.

Submissions

You must create a 2-4 minute video, which shows information about your end user, how you developed empathy, how you framed a challenge, the idea generation process, the design-make-iterate process and visuals of the final product in action. Videos must be uploaded to the online form included in section 8 of the toolkit by the 15th May 2026.

In addition to the video, you will also be required to upload a high resolution image or render of your solution. Full guidance on submissions is provided in section 8 of the online toolkit.

Design Criteria + Award Categories

You should aim to adhere to the below design criteria throughout your make:able journey.

Empathy

Develop a deep and personal understanding of your end user's disability, challenges and needs/wants.

Creative Idea

Use design-thinking methods to realise a product idea that differentiates itself from existing solutions in the market.

Autodesk Software

Explore multiple tools and features in Autodesk software to help drive your design.

Customisation

Make a solution that is a perfect fit for your end user in terms of form and function.

3D Printing

Make full use of 3D printing's capabilities to generate forms with creative freedom.

Iteration

Rigorously test and refine a solution to ensure it is optimal for your end user.

There will be a total of 6 awards for each age group (under 14, 14-18, over 18). The award categories are as follows:

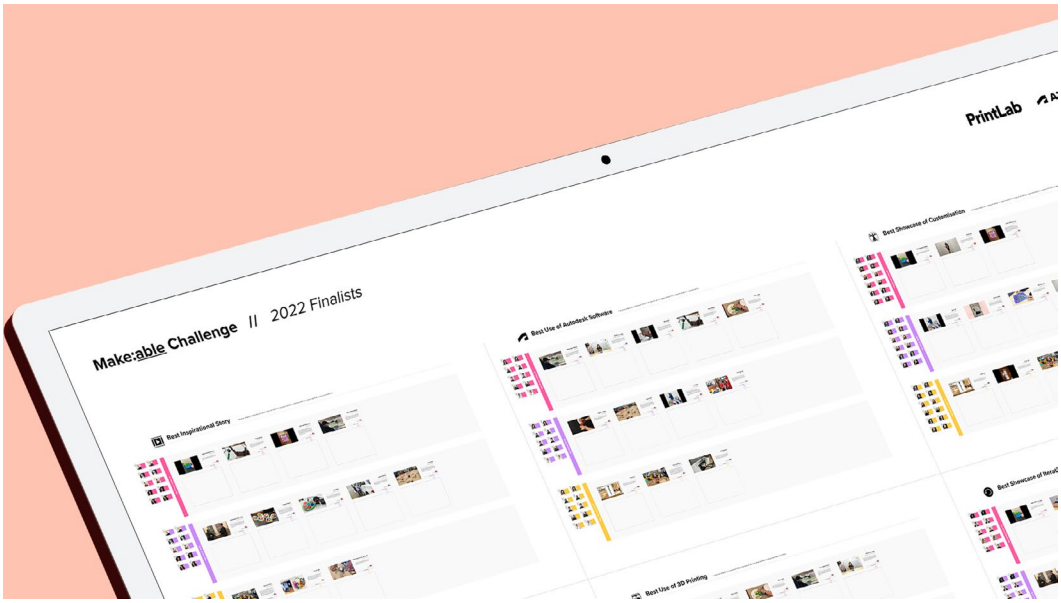
- Best Showcase of Empathy
- Best Creative Idea
- Best Use of Autodesk Software
- Best Showcase of Customisation
- Best Use of 3D Printing
- Best Showcase of Iterative Design

The judging process is outlined in the next section and as you can see, the award categories directly relate to the design criteria. This means that for the best chance of winning an award, you should aim to excel in all design criteria.

Judging Process

15th May 2026 - 31st May 2026: Team PrintLab will review all submissions and create a finalist shortlist of approximately 6 entries per award category in each of the 3 age groups. The finalist shortlist will be announced by email and consist of the entries that excelled the most in the design criteria relating to the award category.

1st June 2026 - 30th June 2026: An expert panel of judges from the medical, education and design fields will be invited to review the finalist submissions. Each judge will be allocated a specific award category and will cast votes for a 1st and 2nd place. 1st place will receive 2 points and 2nd place will receive 1 point. An online voting platform will be used where judges can view submissions, cast votes and make comments.



1st July 2026: The points from each award category and age group will be counted and the 18 winners will be announced via email. Prizes will then be shipped out to the schools/ organisations of the winning teams. Prizes are yet to be determined but will consist of a range of 3D printers, 3D scanners, filament and more. All participants will also receive certificates following the judging period.

Please note that all announcements will be sent to the email address you used to sign up to Make:able.

Equipment List

Here is a list of recommend equipment to participate in make:able.

Computers

Computers/laptops can be shared if 1:1 devices aren't an option in your team.

Wifi

Make:able's challenge toolkit is hosted on a website, which can be accessed from any place and time as long as you have an internet connection.

Camera

The key to a good submission is documenting the entire journey with a camera. Don't worry about obtaining an expensive piece of kit - smartphone cameras are more than capable of shooting good quality video.

3D Printers + Filament

Please visit https://www.makeablechallenge.com/products to view a wide range of recommended bundles and products. If you do not have 3D printers available, we recommend contacting local organisations/ makerspaces, who may be able to support you with 3D printing services.

Large Format Paper + Sticky Notes

Large format paper (A2+) and sticky notes are amazing tools that can help teams to collaboratively solve problems, generate ideas and analyse outcomes. The challenge toolkit has several design thinking activities, which encourage the use of these materials. Therefore it is recommended that they are sourced.

Modelling Materials/Clay

Modelling clay and readily available materials (e.g. cardboard) can help you to quickly generate basic ideas before going in to detailed designs. It can be especially powerful to mould clay around objects or hands to drive the ergonomic form of a design.

Software

Select either Tinkercad or Fusion 360 software and ensure your accounts are created prior to the make:able challenge. Both packages are free for education and developed by Autodesk.

Tinkercad

Tinkercad is a free, browser-based 3D design, electronics and coding app made by Autodesk. When using Tinkercad's 3D design workspace, you begin with what's essentially this construction kit of shapes. Think of these shapes as digital lego that you can place and adjust, before combining them with other shapes. It's the perfect entry point for people getting started with 3D design, yet it's got the versatility and complexity to design almost anything you can imagine. We recommend Tinkercad for students in the under 14 category and it has a range of classroom management tools to support you. Learn more and get started at:

https://www.tinkercad.com/

Fusion 360

Fusion 360 is a cloud-based, full product design platform used amongst innovative and creative industries. It's comprehensive set of tools enable you to design with precision, render realistic images, simulate loads, animate joints and much more.
The amazing thing about Fusion 360 is that it's intuitive and user-friendly enough for anyone to get to grips with - and it's completely free for education. We recommend Fusion 360 for the 14+ age groups and you can learn more and get started at:

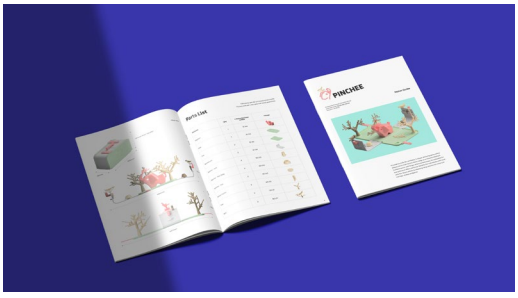
https://www.autodesk.com/education/free-software/featured

Beyond the Challenge

Your design doesn't just have the power to help one person — when shared as open source, it can support many others around the world. That's the purpose of our Beyond the Challenge bonus toolkit, which you can find after the submission section.

This completely optional stage is all about showing you how to take your project further after completing the challenge - with guidance on preparing files, creating clear documentation, and sharing designs in an open-source format. Inside, you'll find real examples of assistive technology, practical tips for refining your design, and a tutorial to help you create a professional MakerGuide.

At the end, you'll have the option to submit your open-source files for review. Selected entries will be shared with assistive technology organisations such as Makers Making Change, giving your project the chance to be featured on global platforms and make a real-world impact.



Frequently Asked Questions

Here are some answers to commonly asked questions about Make:able.

Cost

Make:able and all associated resources are completely free. We may however recommend supplementary content that may support you.

Time

Our approach is to be flexible on how much time you spend on your submission. However, we recommend that a minimum of 6 x ≈ 1 hour sessions are allocated to the Make:able challenge.

Experience Required

Experience in 3D design and 3D printing is helpful but not required. A free trial to PrintLab's 3D CAD and 3D printing learning platform to build technical skills can be found here: https://www.makeablechallenge.com/preparing-for-makeable-with-printlab/

Additional Questions?

If you have additional questions, please email them to hello@weareprintlab.com and we will get back to you as soon as possible!

www.makeablechallenge.com