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Welcome to Tinkercad Beta! We are pleased to share the new Tinkercad in its early stages, so you can help us shape your favorite tool.

From now on, you are part of our extended team and we count on your feedback.

**WHY TINKERCAD BETA?**

Probably the first thing to explain is the reason why we are doing major work on Tinkercad.

Did you ever experience having to wait for the editor to catch up or finish an operation? As more and more schools and Tinkerers logged on, our system was not able to scale up and keep up with demand. Tinkercad Beta has been completely reworked on the backend to ensure we can scale up on demand. We want a reliable application that you know will be available and performing well.
Another reason for Tinkercad Beta is that it lets us respond to popular community requests and opens up seamless workflows with other Autodesk products. With a flexible code base, we can continue to develop and refine new features and workflows to help you turn your ideas into reality. Think electronics, think 3D printing, think laser cutting, think documentation, think animations. Basically, think big.

**HOW CAN YOU ENGAGE WITH US?**

As usual, it is very important to establish some good practices for working together.

To communicate with us, you can always email the Tinkercad Beta team at tinkercad.beta@autodesk.com. In doing so, we can have an open conversation via email.

Online meeting requests or phone calls can be scheduled on an as needed basis.

**WHAT TO TEST AND WHAT NOT TO TEST?**

Tinkercad Beta is work in progress. To see what we've updated and when in the editor, refer to this page. There are also some known issues we will keep updated there.

Tinkercad Beta currently works best with the Chrome browser. We will expand support to other browsers with WebGL support. As with production Tinkercad, you need WebGL enabled, or it won’t work at all.

Some things are not ready to test or are simply missing. They will be there as we progressively make frequent updates. For example, the complete set of community shape generators in not in Tinkercad Beta.
NOT FOR PRODUCTION USE

As with pretty much any alpha or beta product, we don’t encourage use for production purposes. So use it with caution.

Also, if you need your designs outside of Tinkercad Beta, you can export them as an STL or OBJ. Keep in mind your designs from Tinkercad Beta are not guaranteed to be migrated to your normal Tinkercad projects.

INITIAL IMPRESSIONS

Canvas

We targeted a familiar look and feel compared to current Tinkercad. We are using a new engine for displaying graphics that is still based on WebGL, but is a more standard solution.

Please let us know if you see any differences that may concern you (colors, shadows, grid, performance). This move was also important not only for getting a more standard engine, but also for other future enhancements we want to make.
**Toolbar**

The toolbar available today was rethought to be more accessible, while still offering the Tinkercad tools you are familiar with. We've added a "Show all" feature to show any objects that you may have hidden (via Inspector). We’d like your feedback on the new layout for accessibility and ease of use.

- Note: Click the Tinkercad Beta icon at the top left of the editor to see your Dashboard. The Dashboard will show all the designs you create in Tinkercad Beta with a blue Beta tag on the thumbnail.

**MANIPULATION**

One important thing to understand about overall interactions in the new Tinkercad and especially regarding manipulation is that every action needs to be ready to be used on a touchscreen. Tinkercad is already used on Microsoft Surface Pro 3, and will definitely have a big role in tablets in the near future. So while we won’t remove keyboard shortcuts and clutch keys, we can’t solely depend on these.
Navigation

Navigation has not changed regarding keyboard and mouse interactions. You can still use F for focus.

We do have a big change in the way we expose navigation controls. Tinkercad has adopted the ViewCube.

The ViewCube is a much more intuitive way to help out with navigation in 3D, and also allows users to align to specific views. On top of this, you can also now choose between Orthographic and Perspective views.

Click on any part of the ViewCube to align to that view in your canvas. Click-drag on the ViewCube to orbit the canvas around.
Moving, Scaling, and Rotating Objects

This is when things should get exciting for you, since we did some enhancements to the well-known and much loved interactions.

First thing we heard was that it would be great to be able to edit dimensions after dragging, without the need to start the ruler. So now you will get access to editing the final value after every grip move. If you don’t care about it, you can keep working. It will just stay on screen for a brief period.

Is the time on screen enough? Too much? Too little?
When you start with the keyboard input, the object reacts after a short delay to the changes without needing to hit Enter. Is this ok? Should we increase or decrease delay the display of the new object’s size? These details will make a huge difference.

Some subtleties: when you drag a corner grip and press Shift, if you then edit one of the values, you will also be affecting the other side, since we assume you still wanted to have uniform scale. Is this behavior intuitive enough?

Moving objects has the same interaction. Once you drag an object in the scene, you will still have time to edit both values. If you just finished with one value and press Tab, you will get to the other one without the need to click on the field.
Rotation in Tinkercad has gone through some iteration.

- Rotation is at the midpoint, so now the position of the mouse is consistent with the rotation angle.
- We can type value after rotation.
- We display a line that’s aligned with the pointer and allow to type value after rotation.

(Yes that is a rounded box above, try it out by adjusting the radius parameter of a box in the Inspector!)

**COPY/PASTE AND DUPLICATE**

Right now we have already enabled two different ways of copying objects: Copy/Paste and Duplicate.

When copying using **Copy/Paste**, we want to keep the current behavior, where the object gets displaced. In some internal tests, we saw that by pasting on same location, even if we have the copied object selected, some people did not realize a copy was made, and ended up with several objects sharing space.
So if users want to copy in same spot, **Duplicate** would be the workflow. And if users just want to copy and use second object, it will be displaced and easier to discover. Since this is the way it works in current Tinkercad, are you comfortable with this?

**WORKPLANES**

Workplanes are similar to the current one. After clicking it in the Shapes Panel, you will then see the workplane widget and you will be able to move it across the grid and over objects. Is there anything in your wishlist for a workplane?

**MATERIALS**

Material properties now are in the Inspector. Apart from Solid and Hole, we have exciting news. Select an object. Press T.

**Transparency** has been a request for a very long time, and is an object property you can toggle in the Inspector. We will also have a control for amount of Transparency in the near future. To turn off transparency, press “T” again, or uncheck the checkbox in the Inspector.
The **Solid** and **Hole** properties are selectable in the Inspector. For the time being you’ll define those properties by selecting an object and then clicking on one of those two buttons.

**GROUPING AND UNGROUPING**

There are no changes in grouping and ungrouping, except its location alongside the other tools in the Navigation bar. Let us know if you have anything particular in your wishlist. Double clicking for drilling down into a group’s objects also a supported workflow in Tinkercad Beta.

**HIDE AND SHOW ALL**

We’ve added the ability to hide an object via the Inspector. If you hide one or more objects, you can use “Show all” in the top toolbar to see it in the canvas again.
LOCK AND UNLOCK

Also found in the Inspector is the ability to Lock an object. This essentially locks it in place, and no edits can be made to it. Select the object(s) and Unlock via the Inspector to resume editing them. We also have some new behaviors to try out:

- Measure the size/offset with Ruler for the locked objects
- Align to the locked objects

IMPORT/EXPORT

We have a new interface for Importing and Exporting, and would like to know what you think. Here’s what we updated:

- Support for importing/exporting OBJ in addition to STL and SVG (OBJ export supports object color).
- Scaling on import.
- Improved importing of common SVG types.

SHAPES PANEL

We have a limited number of shapes we include in Tinkercad Beta. The reason is that have rebuilt many of them to be more responsive. For example, try the Text shape. It will respond instantly as you type!

You will also see parameters you can modify the shapes with in the Inspector. For example, try out the Box shape and adjust the “Radius” parameter to see rounded edges!

Another change we made was how the parameters modify the object regardless of how you may have modified its bounding box manually in the editor. For example, if you rotate a box, and then keep tweaking the values
from the Inspector, they react along the right directions. Using the grips of an object in the editor modifies the object’s bounding box, while editing sizes from the Inspector modifies local values.

**COLLABORATION**

How to work between different people on the same file has been a recurring question for a long time. Now we have the right technology to make it happen. Click the “Share” button to see and copy a link to your design. Share this with anyone to work concurrently in the same design.

![Share this design](https://beta-editor.tinkercad.com/index.html#ec)

Anyone with the link can: View and edit the design

We don’t yet expose any mechanism for controlling editing, viewing, amount of people allowed, chatting, etc. We need to understand from all of you how this would be used with students in the context of a class, or between two designers, or between a designer and a customer, or any other case.

**KNOWN ISSUES**

Not everything we expose to you is final, and may have bugs. Our QA team has been doing a great job at finding bugs that may not be still fixed in Tinkercad Beta.
We will update the list of significant known issues [here](#) for your reference while Tinkercad Beta is available.

Remember you can always get in touch with us at tinkercad.beta@autodesk.com!