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If you can't see the previous sketch entities to find the center points of the circles, hover next to the sketch name in the Feature list to see the Eye icon . Click on the Eye icon to show the sketch: Eye icon sketch	531
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Welcome to Onshape Help

Onshape is available conveniently through your browser and on your mobile devices (iOS and Android) as well. With Onshape mobile, you can access your existing Onshape account any time, anywhere. To learn more about Onshape for mobile devices, see [Onshape Mobile Devices](#).



This is the help system for Onshape on a browser. If you need help with Onshape mobile apps, please access the help system available through those apps.

About Onshape help

Keep in mind that Onshape help is context-sensitive.

When you click  with a dialog open, Onshape displays the relevant help topic.

If there is no active context, you land here.

Some options to start with

- [Beginner's Guide](#)
- [Instructional Videos](#)
- [Onshape Basics](#)
- [Modeling](#)
- [Assembly](#)
- [Drawing](#)
- [Documentation and Information](#)

Navigating the help system

- **Table of Contents** - Use the Table of Contents in the left pane to browse through available topics.
- **Index** - Browse through the index looking for terms that are familiar to you; the link will take you to the appropriate Onshape topic.
- **Search** - Enter whole words or partial words, for example Part Studio or Part Results are displayed in the content pane of the help system.

To make things easier, follow these conventions

What it looks like	What you should do	What to expect
bold text	Take note and scan for actions	Instructions
<i>italic text</i>	Names of fields, dialogs, objects in UI	References to what you see in the UI
yellow background	Read for more information	Tips, helpful, background or expansive information
blue and underlined text	Click on it	A jump to another topic for more detailed information
<p>triangle with blue text</p> <p>This would be the drop down expanded text</p>	Click on it	An expanded block of more information in place; click again to collapse the information

Onshape Mobile Devices

CAD is no longer bound by the power of your computer.

Now you can design, wherever you are. Imagine being able to access and edit your models on the same device. Since Onshape is based entirely in the cloud, you don't need a powerful workstation. The heavy computation is done elsewhere so you can use Onshape on a lightweight device.

We designed the mobile interface specifically for using fingers on smaller screens. The same familiar icons open the same powerful editing tools. All the functionality is right there. You can even work simultaneously on mobile, while a friend edits the same model on a desktop.

This means:

- You get all of the power, precision, functionality, and flexibility of Onshape no matter what platform you're using
- You can sign in and work from anywhere—without ever having to worry about updates, new versions, installations, memory or storage
- You have access to all of your documents and project files at any time—whenever and wherever inspiration strikes

To begin using Onshape mobile with your existing Onshape account, just download from the App store or Google Play.



Supported OS and Devices

Onshape minimally requires:

- iOS 7 or later
- iPad Mini 2 or later (note the first generation of iPad mini is not supported)
- iPad 4th generation or later
- iPhone 5 or later
- Android 4.2 Jelly Bean and higher, inclusive of Lollipop 5.0 and 6.0 Marshmallow

When considering the Onshape mobile apps, please consider using the following devices to get the most out of your Onshape experience:

- iPad Air2 Wi-Fi
- iPad Air 2 Wi-Fi + Cellular
- iPad Mini 3 Wi-Fi
- iPad Mini 3 Wi-Fi + Cellular
- iPhone 6 and iPhone 6 Plus
- iPhone 5s
- iPad Air Wi-Fi
- iPad Air Wi-Fi + Cellular
- iPad Mini with Retina display Wi-Fi
- iPad Mini with Retina display Wi-Fi + Cellular

Graphics Performance Recommendations

To ensure optimal GPU performance when using Onshape, browse the recommendations below and compare to your configuration.

Browsers

Onshape currently supports these tested and approved browsers:

- Safari (Mac OS only)
- Mozilla Firefox
- Google Chrome
- Opera



Internet Explorer is currently not supported.

WebGL

Onshape requires WebGL. To ensure that you are taking advantage of the highest performing configuration, make sure your preferred browser has WebGL enabled. On Chrome, it should be enabled by default, unless your graphics card does not support WebGL (check the black list: <https://www.khronos.org/webgl/wiki/BlacklistsAndWhitelists>). On Safari or Firefox, you may have to enable it manually:

Safari	Firefox
<ol style="list-style-type: none"> 1. Click Safari menu, select Preferences. 2. Click the Advanced tab. 3. At the bottom of the window, check Show Developer menu in menu bar. 4. Click Developer menu, select Enable WebGL. 	<ol style="list-style-type: none"> 1. In the address bar, type about:config. 2. Click through the warnings. 3. Search for webgl. 4. Confirm webgl.disabled is set to false (or set it to false; this will not affect any warranties).

If you make these changes while running Onshape, simply refresh your browser for the changes to take effect.

Graphics cards

Many computers have more than one graphics card installed (GPU). Often, on Windows machines with NVIDIA graphics cards, Optimus technology is also involved, meant to optimize the workload between GPUs -- to assign the proper graphics card to applications needing a high performing graphics card and applications needing more battery life and lower performing graphics card.

If you do not have NVIDIA or NVIDIA with Optimus technology, you can skip this topic.

To get the most out of your graphics cards:

- Make sure the the graphics card you use is not on the WebGL blacklist, as some video graphics cards do not support WebGL.

See <https://www.khronos.org/webgl/wiki/BlacklistsAndWhitelists> for more information.

- Onshape performs best when Optimus technology is not involved in the management of graphics cards. To ensure that Optimus technology, if present, does not interfere with the best performance of the graphics card when working with Onshape:

Determine whether or not your computer uses Optimus technology:

- Open the NVIDIA control panel.

Select *System Information* and then *Components*. If Optimus technology is present, it will be listed somewhere in the right column.

- If Optimus technology is present, make the NVIDIA graphics card the default card for Onshape (for the browser you use with Onshape), through the NVIDIA control panel.

To make the NVIDIA graphics card the default GPU for Onshape, or rather, the browser you want to use for Onshape:

1. Open the NVIDIA control panel.
2. Navigate to *3D Settings* > *Manage 3D Settings* and then the *Program Settings* tab.
3. Locate the browser you use for Onshape.
4. Set *Select the preferred graphics processor for this program* option to *High-performance NVIDIA processor*.

If this method doesn't work, see below for more options.

In a nutshell

You want to use your high performance GPU when an application (like Onshape) demands it. Having a management technology involved (like Optimus) doesn't always result in the performance you are hoping for.

If you don't know what your computer has by way of GPUs, you can download and use a utility such as Speccy (for Windows) or of CardStatus (for Mac) to discover what is installed on your machine. You can also use [chrome://gpu/](#) to see which GPU is used.

You want to use the faster, discrete NVIDIA GPU (when available) for Onshape, always. For applications that don't require high performance graphics or require longer battery life, you can use an integrated GPU such as Intel's integrated GPU. To this end, assign the appropriate GPU to a specific browser.

Alternative

As a last resort, you could try to go into the machine's BIOS settings and switch off Optimus technology completely and run using the discrete NVIDIA GPU all the time. This carries serious risk, however, so make sure you know what you're doing here, or seek help before attempting this solution.

Additional information

More resources include:

- <http://alteredqualia.com/faq/optimus/> -- more information and specific instructions
- <http://alteredqualia.com/faq/webgl-maxparams-test/> -- for immediate and install-less detection of graphics cards on your machine using WebGL

Onshape

Sign Up

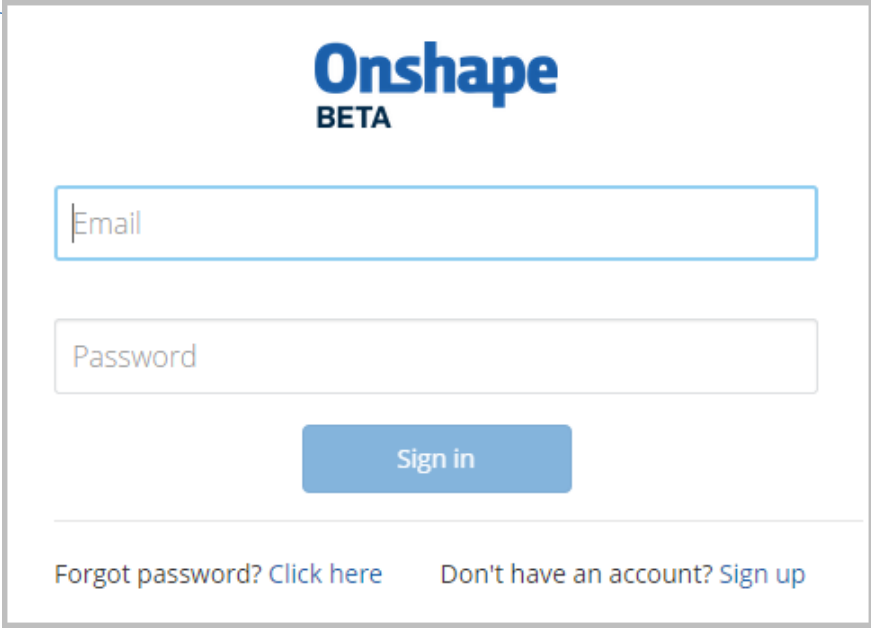
Using Onshape requires that you have an Onshape account. Creating an account registers your name and details with an email address that you then use to sign in to Onshape from anywhere, on any device. An Onshape account can be associated with one or more Onshape plans.

If you already have an account

Enter your credentials and click [Sign in](#).

If you do not have an existing account

1. Click Sign up (beneath and to the right of the Sign in button) to create an account:

A screenshot of the Onshape BETA login and sign up interface. At the top, the 'Onshape BETA' logo is displayed. Below the logo are two input fields: 'Email' and 'Password'. A blue 'Sign in' button is positioned below the password field. At the bottom of the form, there are two links: 'Forgot password? Click here' and 'Don't have an account? Sign up'.

You see the Onshape Plans page, presenting the types of plans you can choose from:

Onshape		
Free	Professional	Enterprise
\$0	\$100 USER / MONTH	CALL +1.844.667.4273 ext 4007
Students, makers and light-duty professionals 10 private documents 5 GB public storage (100 MB private) Parts, assemblies and drawings Sharing and collaboration Version control Works on PC, Mac, Linux, Chromebook and mobile Import and export common CAD formats	Professional CAD users and designers Unlimited private documents Unlimited private storage Parts, assemblies and drawings Sharing and collaboration Version control Works on PC, Mac, Linux, Chromebook and mobile Import and export common CAD formats Company document ownership Centralized billing for businesses	Enterprise design cycle management Unlimited private documents Unlimited private storage Parts, assemblies and drawings Sharing and collaboration Version control Works on PC, Mac, Linux, Chromebook and mobile Import and export common CAD formats Company document ownership Centralized billing for businesses Administration tools Reporting and compliance tools Enterprise support
Create a Free Account	Buy Onshape Professional	Call
Compare plans		

2. [Select a plan](#)

Select a Plan

Onshape		
Free	Professional	Enterprise
\$0	\$100 USER / MONTH	CALL +1.844.667.4273 ext 4007
Students, makers and light-duty professionals	Professional CAD users and designers	Enterprise design cycle management
10 private documents	Unlimited private documents	Unlimited private documents
5 GB public storage (100 MB private)	Unlimited private storage	Unlimited private storage
Parts, assemblies and drawings Sharing and collaboration Version control Works on PC, Mac, Linux, Chromebook and mobile Import and export common CAD formats	Parts, assemblies and drawings Sharing and collaboration Version control Works on PC, Mac, Linux, Chromebook and mobile Import and export common CAD formats Company document ownership Centralized billing for businesses	Parts, assemblies and drawings Sharing and collaboration Version control Works on PC, Mac, Linux, Chromebook and mobile Import and export common CAD formats Company document ownership Centralized billing for businesses Administration tools Reporting and compliance tools Enterprise support
Create a Free Account	Buy Onshape Professional	Call
Compare plans		

All Onshape plans enable you to create documents (public and private) and to share documents with other Onshape users.

Common characteristics of all plans:

- Public documents are available with view-only permission to all Onshape users; you can make any of your private documents public. Be aware that users may make private (editable) copies of public documents. Even after you make a document public, you can make it private again.
- Private documents are viewable and editable only by you but also shareable with other users, with the ability to assign specific permissions per user. Just as you can add Share permissions to a document, you can also remove them. Users can remove themselves from the Share list on a document at any time as well.
- Teams can be created by grouping individual users under a team name. Documents can be shared with teams. Teams can be deleted at any time (or members can be removed); when a team is deleted, or members removed, any documents shared with those members is also revoked.

Free plan

The [Free plan](#) is recommended for individuals who wish to try Onshape: students, educators, makers, and anyone wishing to use a professional CAD system for free. Some limitations apply:

- You can create up to 10 private documents using up to 100MB private storage space. If you exceed either limit you are prevented from creating more private documents (until you free-up space), but you can continue to work on your existing private documents.
- You can create as many public documents as you wish, using up to 5GB total storage space (including private and public documents).
- Documents shared with you count toward the 10-private document limit, but not towards storage limits.
- You can upgrade to a Professional plan at any time without fear of losing any data at all.

Professional Plan

The [Professional Plan](#) is recommended for users who want to create unlimited documents with unlimited storage space available. A Professional plan can be purchased for \$100/month and paid for at the billing interval of your choice (monthly or yearly). When signing up for the Professional plan, you have the choice to sign up and pay as an individual or as a company:

- For individuals

When choosing an Individual Professional plan, you choose to pay for only yourself and you are the owner of all documents you create.

Should you discover that you don't need unlimited storage space, you can downgrade at any time to a Free plan with no loss of data (conditions apply, see [Canceling Professional Plan](#) for more information). The downgrade takes place at the end of your billing cycle.

- For companies

When choosing a Company Professional plan, you choose to pay for multiple users on a centralized billing plan and indicate a company plan owner/user. This purchase option includes the ability for the [company to:](#)

- Own documents
- Add and remove users from the plan (through the company owner)
- Transfer ownership of documents (through the company owner)

Enterprise

Please call Onshape Sales for more information.

Onshape's Free plan enables you to create an Onshape account and use Onshape at no cost. There is no time limit imposed and no credit card information collected.

The Free plan allows you to create as many public documents as you want (using up to 5GB of storage). You can create up to 10 private documents (totaling up to 100MB of private storage, which also counts towards the 5GB of total storage). You can share private documents with other users, and you can create [teams](#) for sharing purposes as well.

Documents shared with you count as private documents but do not count towards storage space. If documents are shared with you after you reach the 10 document limit, you will see them in your document list, grayed out as inactive.

Your Free plan information is shown at the top of the Onshape user interface window:



Private Documents and Public Documents

In the Free plan, when you create a document, you become the owner. As the owner of a document, you can:

- Keep a document **private** - Only you can see or edit the document
- Keep a document **private** and **share** it with specific people - Only people you designate can view the document and possibly edit it depending on the permissions you assign, and you can remove a user from the shared list at any time (users can also remove themselves from the share list)
- Make a document **public** - Public documents are available for viewing by all Onshape users. Onshape users can choose to make a private copy of those documents and edit that copy (you can also make your public document private again)

Working within limits

The Onshape Free plan allows you to create up to 10 private documents (using up to 100MB storage) and unlimited public documents up to a total of 5GB storage space. Note that private documents shared with you count toward your private document limit but are not included in your storage space limit. (Public documents directly shared with another user do not count towards limits.)

Once you meet either the 10 document limit or the 100MB storage limit for private documents, you will be prevented from creating more private documents, but not prevented from accessing and editing the documents you have already created. Documents shared with you at this point will appear in the list on your Documents page, but will be inactive (grayed out and inaccessible).

To free-up space so you can activate them, you can:

- Move a private document to Trash, and then empty it from Trash
- Unshare yourself from an active shared document (note that you will no longer have access to it unless it is re-shared with you)
- Make an active private document public, thereby giving all Onshape users view-only and copy permissions to it

Once you have made space in this manner, you can either create a new private document or activate an existing inactive shared document. To activate a document, click **Make document active** in the gear menu:

Recently opened

Name	Workspace	Modified	Modified by	Owned by	Size	
Free document 1	Main	1:18 PM Au...	me	me	3 KB	⚙️
Free document 2	Main	1:18 PM Au...	me	me	3 KB	⚙️
Free document 3	Main	1:18 PM Au...	me	me	3 KB	⚙️
Free document 4	Main	1:18 PM Au...	me	me	3 KB	⚙️
Free document 5	Main	1:18 PM Au...	me	me	3 KB	⚙️
Free document 6	Main	1:18 PM Au...	me	me	3 KB	⚙️
Free document 7	Main	1:18 PM Au...	me	me	3 KB	⚙️
Free document 8	Main	1:17 PM Au...	me	me	3 KB	⚙️
Untitled document		12:06 PM A...	me	me	3 KB	⚙️

Make document active

Delete

The [Professional plan](#) has no limitation on private documents or storage.

Professional Plan

Onshape's Professional plan has no restrictions on the number of documents you can create or how much storage you can use, and is available for \$100/month/user, billable at your desired interval. When signing up for a Professional plan, you have options to pay as an individual, or pay for multiple users (referred to as a company).

Note that "company" here means a named, user-visible Onshape entity for centralized billing, ownership, and document sharing for a specified set of Onshape Professional plan users. These users do not have to be in the same actual company, only paid for by the same user (referred to as the company owner). For example, you can pay for contractors, collaborators, any Onshape user even if they are on another Professional plan. A Professional plan user paid for by another company must also be paid for by your company in order to be specified as a member of your company plan.

Professional plan for individuals

Choosing a Professional plan for an individual (or upgrading to one from a Free plan), means you are choosing to pay for only your own Onshape use. You can create private and public documents, share documents with other Onshape users, and create teams. All Onshape functionality is available with no limitations on number of documents or amount of storage.

Professional plan for a group of individuals

Choosing a Professional plan for a group of individuals (a *company*), means you are choosing to pay for multiple Onshape users and you become the *company owner of the account/company in Onshape*. All users can create private and public documents, share documents with other Onshape users, as well as create documents owned by the company. The company owner can add and remove users. All Onshape functionality is available with no limitations on number of documents or amount of storage.

There is no restriction on how many Professional plans a user may be included in. For instance, a single user may pay for their own Professional individual plan as well as be a paid member of other companies' Professional plans.

Documents

In Onshape, when you create a document, you become the owner (this is true in all Onshape plans, for Professional plans for companies, the company can be the designated owner of a document). As the owner of a document, you can:

- Keep a document completely private. No one else can see or edit the document
- Keep a document private and share it. With specific people, teams, and companies (if they are part of the company) - only people you share with can view the document and possibly edit it depending on the permissions you assign, and you can remove a user from the shared list at any time (users can also remove themselves from the shared list).
- Make a document public. Public documents are available for viewing (in read-only mode) by all Onshape users; Onshape users can choose to make a private copy of those documents in order to edit them on their own.
- Company-owned documents. Documents created within a Professional plan for companies that have the company specified as the document owner. The company owner is the implicit owner of company-owned documents.

Note that permissions can be applied during the Share process.

Tips for working with Professional plans

- If you are upgrading from a Free plan to a Professional plan, all of your documents are available to you immediately; and your private documents remain private.
- If you create an Onshape account and want to pay for multiple users (i.e. sign up for a Company Professional plan), your email must not exist in the system yet. When signing up for the Company Professional plan, you become the company owner with rights to add and remove users from the plan. The company owner can also transfer company ownership to another user.

If your email does exist in the system (you will see a warning), you must sign in to your Onshape account and use the Upgrade option in your current plan. Sign in with your current account credentials and then Upgrade your existing plan via the Manage account page.

- If a Free user upgrades to a Professional plan and wants to pay for others, that user becomes the company owner. All private documents created in the Free plan remain private in the Professional plan.
- People added to a Company Professional plan become Professional plan users; any private documents previously owned in a Free account remain private - if the user is already a part of another professional plan (individual or company), there will be a notification during the process, and you can still add them and pay for them.
- Users added to a Company Professional plan become members of that company and cannot simply downgrade themselves to an Individual Professional plan or leave the company. The user must request to be removed from the company (by the company owner) first. Once a user is removed from the company, they are downgraded to a Free plan immediately, not at the end of the payment cycle as is the case with downgrading from Individual Professional to Free. The exception is when a user belongs to more than one Professional plan; in that case they are removed from the company, but are not downgraded to the Free plan.
- If a user is removed from a Company Professional plan and has an Individual Professional plan (or is a member of another Company Professional plan), they are not downgraded to a Free plan.

Set up Payment

Create your Onshape credentials and enter your credit card information to finish signing up for the Professional Plan:

Onshape

Buy Onshape Professional

If you already have an Onshape account, please [sign in](#) and [upgrade](#).

Plan type

☒ Individual
 ☐ Company
 [?](#)

Create an account

First name
 Last name

Email

Password

Confirm password

Company name (optional)

Professional Plan details

☒ Paid monthly
 ☐ Paid yearly

\$100 Monthly

Credit card

Credit card number

MM/YY
 CVC
 [?](#)

Zip code
 Country

☐ I agree to the [Onshape Terms & Privacy](#)

Purchase summary

Onshape Professional

[Compare plans](#)

Details

Paid: **Monthly**

\$100 user / month

Subtotal	\$100
Discount	\$0
Taxes	\$0
Total	\$100

1. Indicate what type of Professional plan you want:

- Individual - Pay for just one user, yourself
- Company - Pay for multiple users, a company

When paying for multiple users, enter the number of users; at the conclusion of this payment process, you can access the [Manage accounts](#) page and specify the details of your company users.

Onshape

Buy Onshape Professional

If you already have an Onshape account, please [sign in and upgrade](#).

Plan type

☐ Individual
 ☒ Company ?

Create company plan owner account

Company Professional Plan details

Number of users paid for by your company:

(including the plan owner)

☒ Paid monthly **\$100 Monthly per user**
☐ Paid yearly

Credit card

?

☐ I agree to the [Onshape Terms & Privacy](#)

Purchase summary

Onshape Company Professional

[Compare plans](#)

Details

Users: **2**
Paid: **Monthly**
\$100 user / month

Subtotal	\$200
Discount	\$0
Taxes	\$0
Total	\$200

2. Enter account details:

- Name (if you are purchasing a company plan, this user becomes the company owner, the implicit owner of all company-owned documents, and has payment and user management responsibilities)
- Email
- Password, and confirm password
- Optional company name

3. Enter payment information:

- Indicate the interval of payment (monthly or yearly); note that charges are made at the beginning of the payment cycle.
- Credit card information.

4. Agree to Onshape's Terms & Privacy policies.

Notice your order details are in the summary box to the right.

5. Click Review my purchase.

Review the order details.

6. Confirm purchase.

If you have purchased an individual plan, you now see the [Documents page](#).

If you have purchased a company plan, you are directed to add your plan users:

Account Settings Company

TestCo Edit details

Company name: TestCo

Description: Empty

Company address: Address

City State Zip code Country

Number of users you are paying for: 2 users << First < Previous Next >

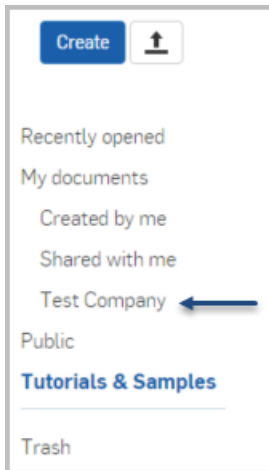
Name	Email	Role
diane amadeo	damadeo+s36@onshape.com	Owner

Add users Member Add

Adding users

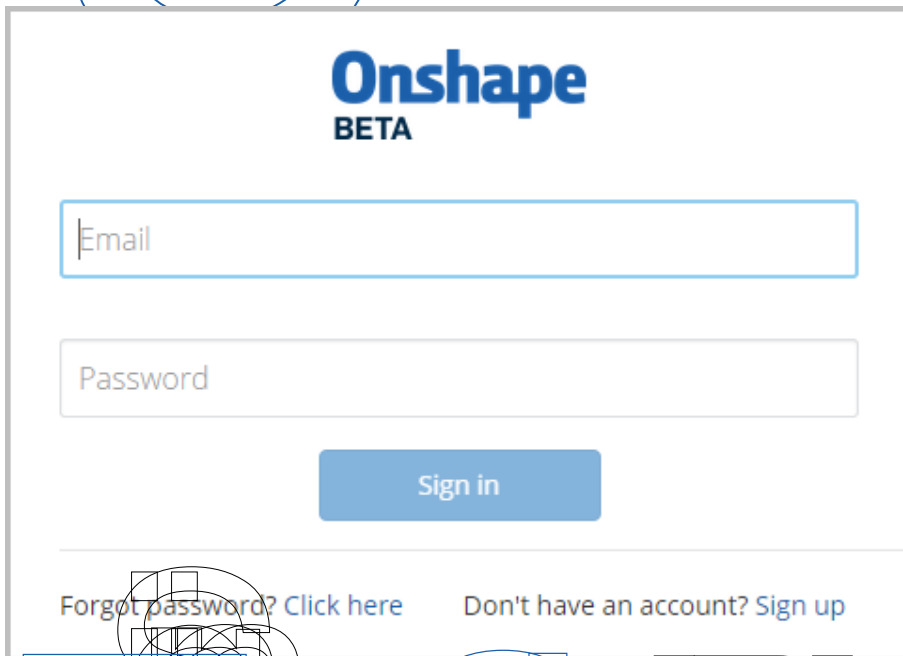
1. In the Add users text box, enter one or more email addresses (separated by commas).
2. Select the role for the specified users: Member or Admin. Admins can add and remove users from the company.
3. Click Add.
4. Review the list of users and roles. You can change the role of a user here, or remove them from the plan completely.
5. Click Done.

6. You are directed to the Documents page. Notice the Company name is now listed as a filter on the left:



Onshape

Sign In



The image shows a screenshot of the Onshape BETA Sign In page. At the top, the Onshape logo and 'BETA' text are displayed. Below this are two input fields: 'Email' and 'Password'. A blue 'Sign in' button is positioned below the password field. At the bottom of the form, there are two links: 'Forgot password? Click here' and 'Don't have an account? Sign up'.

1. Enter the email address you used during the sign-up process.
2. Enter your Onshape password.
3. Click Sign in.

The *Documents* page appears:

- If you have previously created Onshape documents, the *My Documents* filter is active.
- If you have not created any documents, the *Tutorials & Samples* filter is active.

Forgot your password?

Click the link to receive an Onshape email containing a link to reset your password. Onshape doesn't save or record your password.

Don't have an account yet?

Click Sign up to fill out a simple form to become an Onshape user. See [Sign Up](#) for more information.

Managing Your Account

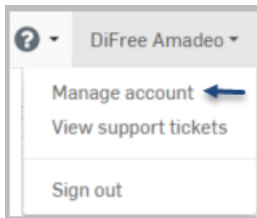
Your Onshape account includes access to Onshape via:

- Browser, via Chrome, Firefox, and Safari
- Mobile devices, including: iPad, iPad mini, iPod, iPhone, and Android devices



To learn more about mobile devices and operating systems supported, see [Mobile Device Requirements](#). For more information about Onshape on a mobile device, watch this video: [Mobile Devices Video](#).

Click your name in the upper right corner to access your Onshape Account Information.



For Free plan users, the top of the page contains information about the type of Onshape plan you have, including some plan metrics. Professional plan users do not have this banner because there are no limits to Professional plans.

Onshape
BETA

DiFree Amadeo

Your plan: **Free** [Learn more](#) **Approaching Free Plan limits** **9 of 10** Private documents **28 KB of 100 MB** Private storage **28 KB of 5.00 GB** Total storage

Account Settings Profile

Profile

Email

Preferences

Security

Account metrics

Devices

Applications

Early visibility

Plan

Company

Teams

First name

DiFree

Last name

Amadeo

Username (Onshape forum name)

difree_amadeo

Nickname (Your name as seen by other users)

DiFree Amadeo

Bio

Say something about yourself

Update profile

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Use **Manage Account** to view and manage your profile and user account, including:

- **Profile** - First name, username, nickname, biographical information, and company name
- **Email** - Email addresses associated with your account
- **Preferences** - Preferences for all documents you create, including for length, angle, and mass
- **Security** - Reset your password and enable/disable two-factor authentication
- **Account details** - Number of private documents, private document storage, and total storage
- **Applications** - This functionality is coming soon
- **Plans** - The primary email address associated with your account and the current account type
- **Companies** - This appears when you are either the owner of a Company Professional plan, or have been added to such a plan
- **Teams** - Teams you are a member of; ability to create teams (if allowed by your account type)

The remainder of this topic explains the tabs on this page.

Profile

Onshape automatically records the first and last names you specify during sign up; here you can also enter an optional company name and a personal nickname for display in the system (in the upper right-hand corner).

Email

You can specify up to three email addresses with which to access your Onshape account. One of the addresses will function as your primary email, used for all Onshape notifications and communications. Change the primary designation at any time after adding at least one more email address to your account.

All email addresses added to the system must be verified. Check the email address for a verification notice from Onshape.

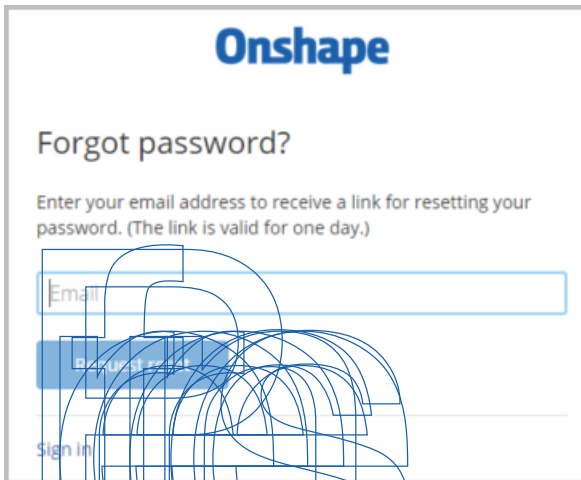
After adding an email address (you can have up to 3 at any one time), you can make it the primary email address (the one all Onshape correspondence and notifications will be sent to).

Note that any email addresses associated with an account (even those not designated as primary) cannot be used to create another Onshape account.

Email				
Primary	User@company.com			
Other	Otheremail@gmail.com	Verified	Make primary	x
	Otheremail2@home.com	Unverified	Resend verification email	x
	<input type="text" value="New email"/>			<input type="button" value="Add"/>

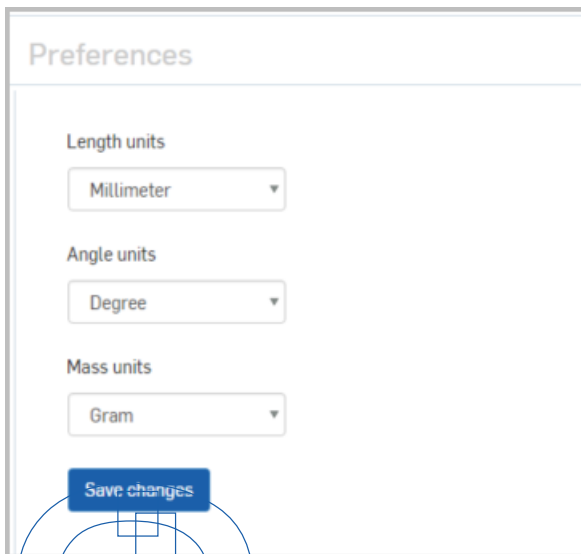
Remove an email from your account by clicking the small "x" next to the email listing (shown above).

You can use any of the verified email addresses on your account to request a reset for a forgotten password.



Preferences

Onshape defaults to inch, degree, pound for units of measure for all documents; this encompasses all measurements in Part Studios and Assemblies, all values displayed in sketch dimensions, and the default input units for all features as well. (These default units do not affect any external files you import.)



In addition to setting default units for all documents you create (through this [Settings](#) tab), you can also change and specify default units for a specific *workspace* in a document through the [Document menu](#) in a document.

Despite the default settings, Onshape allows you to specify a different unit of measure in any numeric field and the value will be converted to the default unit automatically. For example, if the default unit is inches, you can still specify a different unit type (for example "10mm") in a numeric field.

Security

Change your Onshape system password, and also enable (or disable) [two-factor authentication](#).

When resetting your password, a list of guidelines appears. Each requirement is checked as your password fulfills the requirement:

← Password

.....

Confirm password

Update password

Your password's strength

- 8 characters minimum
- 1 number
- 1 lowercase
- 1 uppercase

Account metrics

Account metrics	
Private documents	9 of 10 documents
Private storage	28 KB of 100 MB
Total storage	28 KB of 5.00 GB
Upgrade	

View the usage metrics for your account, including:

- Number of private documents currently created (including those in Trash)
- Amount of private storage space used; storage used for private documents only (including those in Trash)
- Amount of total storage space used; storage used for all documents you own (including those shared with you and those in Trash)

Devices

A list of all mobile devices associated with and authorized to use this account. Once you access your Onshape account on a mobile device, that mobile device is listed here.

Devices			
Device type	First used on	Last used on	
Mac OS X (iPhone)	10:33 AM Sep 8	10:33 AM Sep 8	Forget

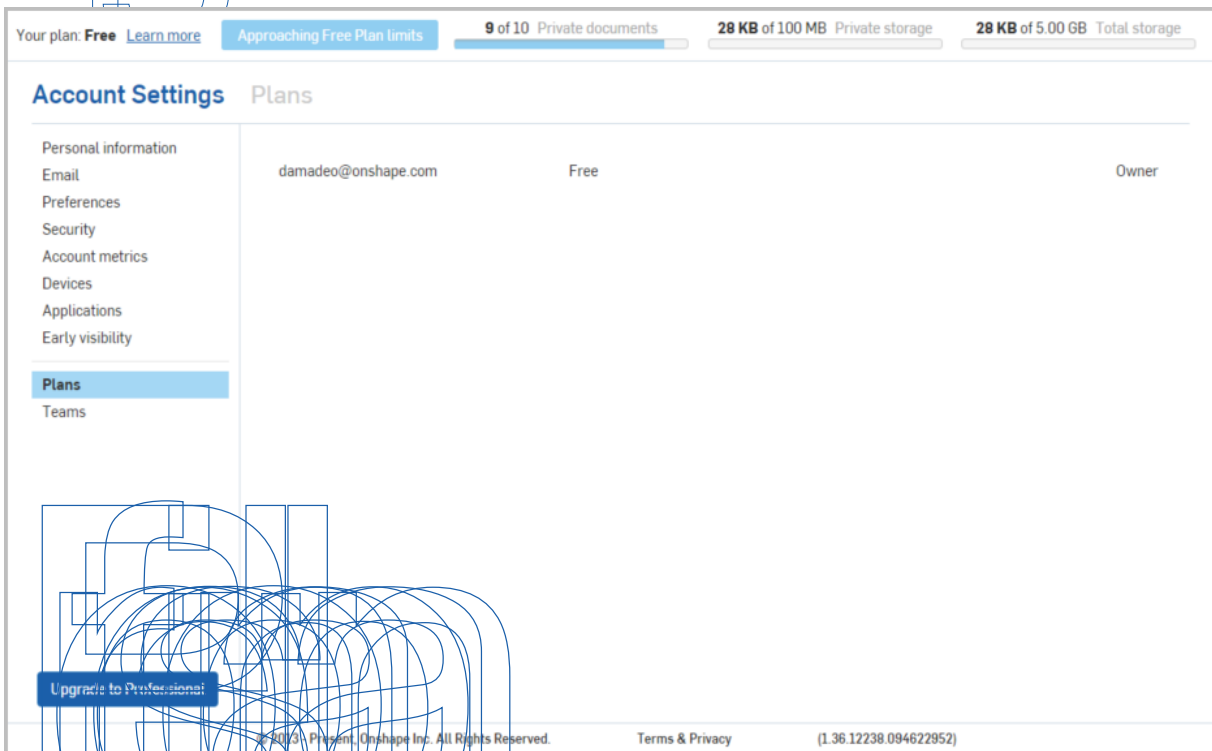
Plan

View the list of plans of which you are a member.

Free plan

Free plan members may belong to only one plan at a time; to change from a Free plan to a Professional plan,

click [Upgrade to Professional](#) at the bottom of the left pane:



Your plan: **Free** [Learn more](#) **Approaching Free Plan limits** **9 of 10** Private documents **28 KB of 100 MB** Private storage **28 KB of 5.00 GB** Total storage

Account Settings Plans

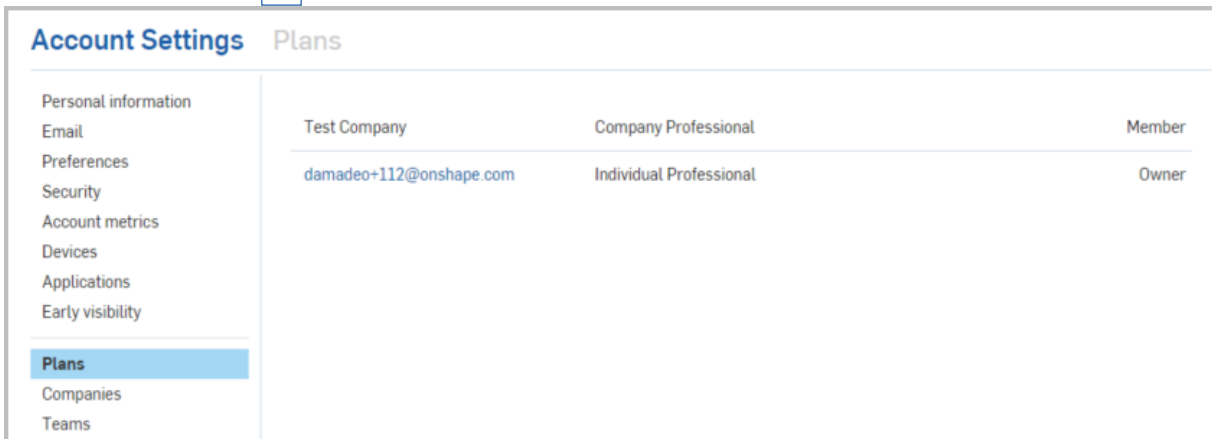
Personal information	damadeo@onshape.com	Free	Owner
Email			
Preferences			
Security			
Account metrics			
Devices			
Applications			
Early visibility			
Plans			
Teams			

[Upgrade to Professional](#)

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Professional plan

A user may belong to one or many Professional plans. In this image, the user belongs to an Individual plan as well as a Company plan:



Account Settings Plans

Personal information	Test Company	Company Professional	Member
Email			
Preferences			
Security			
Account metrics			
Devices			
Applications			
Early visibility			
Plans			
Companies			
Teams			

Click the email link to make changes to your plan. Note that only company owners have a link to make changes to a company plan:

Onshape BETA Smith Smythe

← **damadeo+112@onshape.com** Individual Professional plan

Plan type: Individual Professional
[Change to Company Professional plan](#)

Payment details

Visa **** * 4242 [Edit credit card](#)
 Expires 01/19

Renewal: Monthly
 Next bill: \$100.00 on September 18, 2015

Plan Active [Cancel plan](#)

Payment history

Date	Description	Amount	Action
Aug 18, 2015	Charge	\$100	View

Here you can:

- Upgrade to a Company Professional plan
- Edit your credit card information
- Cancel the Professional plan, thereby downgrading to a Free plan
- View payment history

Owners of Company Professional plans click the company name to manage the details of the plan:

Onshape BETA Sarah Planco

← **Test Company** Company Professional plan

Users

Number of users paid for by your company: 5 [Edit users](#)

Payment details

Visa **** * 4242 [Edit credit card](#)
 Expires 02/19

Renewal: Monthly
 Next bill: \$500.00 on September 18, 2015

Plan Active [Cancel plan](#)

Plan type: Professional (Company) plan

Payment history

Date	Description	Amount	Action
Aug 18, 2015	Prorated Charge	\$99	View
Aug 18, 2015	Prorated Charge	\$99	View
Aug 18, 2015	Charge	\$300	View

Here you can:

- Edit the membership of the company, including [adding or removing users](#)
- Update your credit card information
- Cancel the plan, transitioning all users to Free plans immediately (users with other Professional plans are not transitioned to the Free plan)
- Click View in Payment History for a printable invoice

For answers to common questions about Onshape's payment processes and plans, see [Plans and Payment FAQs](#) and [Choosing a Plan](#), respectively.

Company

This area lists all the Companies of which you are either owner or member.

Company

EngineeringCo

Edit details

Company name:

EngineeringCo

Description:

Empty

Company address:

Address




City State

Zip code Country

Number of users you are paying for:

3 users

<< First < Previous Next >

	DiFree Amadeo	damadeo@onshape.com	Owner	
	Nicholas Amadeo	namadeo@onshape.com	Member	×
	DiPro Amadeo	damadeo90@onshape.com	Member	×

Teams

All Onshape plans allow you to create Teams of other Onshape users. This is an informal and convenient way to share collectively with a group of Onshape users. There are no document ownership requirements, as with companies, and users can be added or removed at any time by the designated Team Admins. [Learn more about creating and managing teams.](#)

Teams	
Team	Admin
Team-1	Member
Team-2	Member
Team-Design	Admin
Create Team	

Upgrading to Professional Plan

Onshape's Professional plan allows users to create unlimited private documents and take advantage of unlimited storage. You can select an Individual Professional plan (pay for just yourself) or a Company Professional plan (pay for multiple users).

- If you are new to Onshape and do not yet have an account, click the Sign up link on the Onshape home page and follow the instructions in [Sign Up](#).
- If you already have an Onshape account, click the Upgrade button on your account page and follow the instructions below.

To upgrade to a Professional plan from the Free plan:

1. On the page that appears, indicate:
 - a. Whether to purchase an Individual or Company plan
 - If purchasing a Company plan, enter the company name and the number of users
 - b. The desired payment interval
 - c. Valid credit card information

Onshape

Upgrade to Onshape Professional

Plan type

☒ Individual ☐ Company ?

Professional Plan details

☐ Paid monthly ☐ Paid yearly

Credit card

Credit card number

MM/YY CVC ?

Zip code

[Review my purchase](#)

Purchase summary

Onshape Professional

[Compare plans](#)

Details

Subtotal	\$0
Discount	\$0
Taxes	\$0
Total	\$0

2. Click Review my purchase.

- Review the summary.

Onshape

Upgrade to Onshape Professional

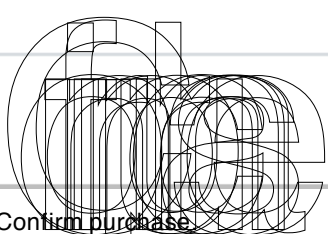
Purchase summary

Details:

Plan: **Individual Professional**
 Name:
 Number of users: **1**
 Paid: **Monthly**
 \$100 user / month

Subtotal	\$100
Discount	\$0
Taxes	\$0
Total	\$100

Card ending in **4242**



- Click Confirm purchase.



Notice that any inactive documents you previously saw on the Documents page are now active documents. Onshape automatically makes all of your documents accessible to you.

Onshape displays a final confirmation:

Onshape

Thank you for choosing Onshape Professional

Your payment was successfully processed.
\$100 has been charged to your card ending with **4242**.
 A receipt has been emailed to you.

Note that if you have purchased a Company Professional plan, the final confirmation message includes a Continue button. When you click this button you are directed to the [Edit details](#) page for your company:

Account Settings
Company

Profile
Email
Preferences
Security
Account metrics
Devices
Applications
Plan
Company
Teams


TestCo Edit details

Company name: TestCo

Description:
Empty

Company address:
Address
City State
Zip code Country

Number of users you are paying for: 2 users << First < Previous Next >

 diane amadeo	darnadeo+s36@onshape.com	Owner
---	--------------------------	-------

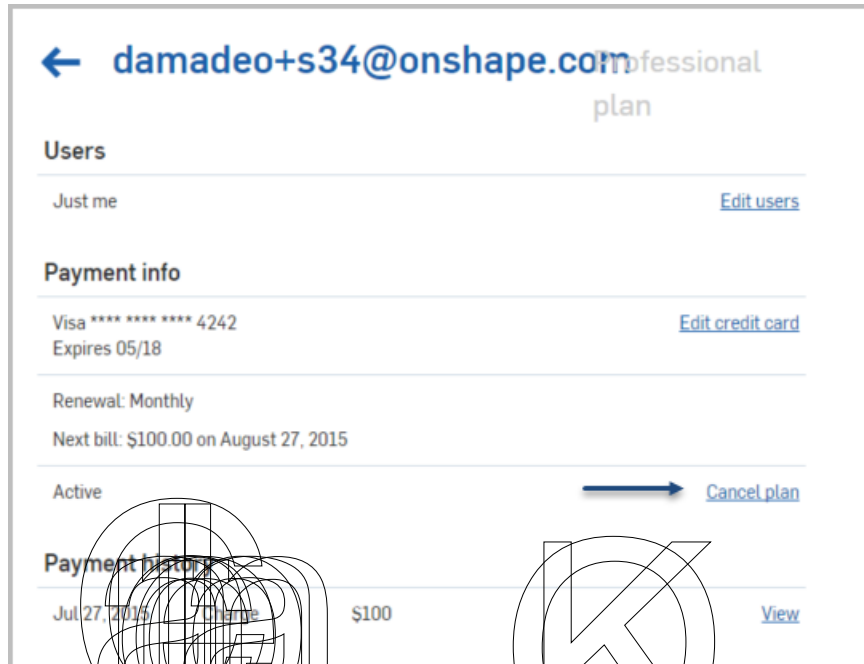
Add users:

Member
Add

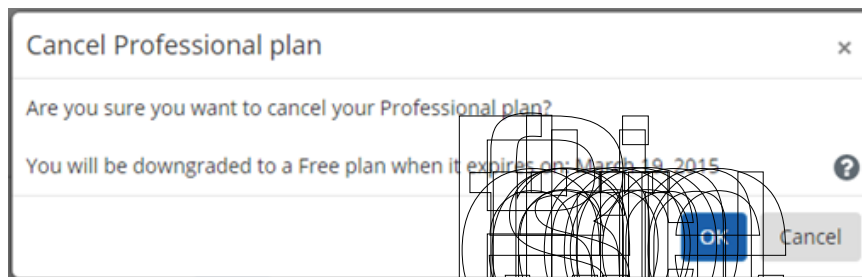
Canceling a Professional Plan

To cancel the Professional plan and move to the Free plan:

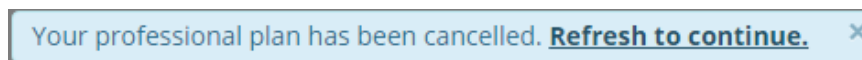
1. Expand the user menu under your user name and select Manage account.
2. Select the Plans tab.
3. Click your email address to manage your plan:



4. Click Cancel plan.
5. On the confirmation dialog that appears, click OK to cancel.



6. In the blue notification that appears, click Refresh to continue.

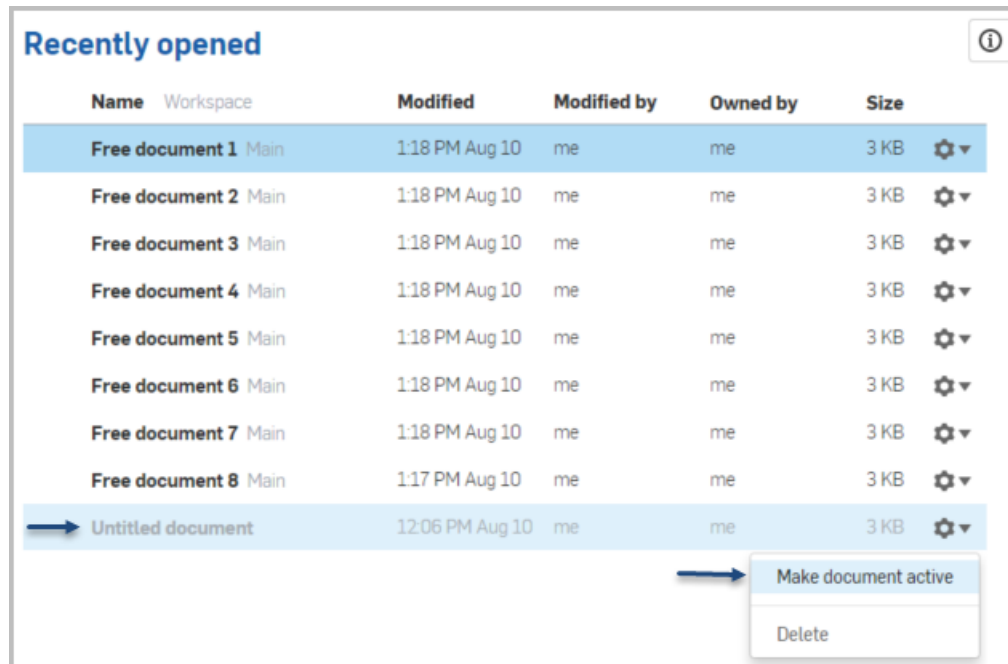


Note that on the date specified that your plan expires, if your documents exceed the Free plan limits, all of your documents will be inactive (grayed out). Onshape allows you to choose which documents to activate (keep and work in) and which to remove to be in accordance with the Free plan limitations of 10 private documents (up to 100MB of storage) and public documents up to 5GB in total storage.

Complying with Free plan limits

To comply with the Free plan limitations and activate documents, you can:

- Use the gear menu beside a document to make it active:



- Delete documents in order to comply with the storage limits (these documents must be removed from Trash before the storage limit registers the decrease).
- Removing features, Part Studios, Assemblies and/or imported files from an Onshape document will not decrease the document size. (Onshape keeps a history of the document so that you can restore the document to any point in that history, including any deleted entities.)

Creating and Managing Teams

You can create teams in order to group users together for the purpose of making sharing more efficient; once the team is created, you can select the team name instead of entering many users' individual email addresses during a Share operation.



It is not required that the members of a team have anything in common; not even an Onshape plan.

One user creates a team (thereby becoming the initial administrator of the team) and then adds other users to it, assigning either a user role or an admin role to each team member. Members receive notification emails when they are added and removed from a team, and users can belong to more than one team at a time.

Sharing a document with a team does not give any team member additional permissions on the document than the owner/creator of the document allows during the Share operation.

At any point, the admins of a team can remove any member from the team, thereby removing any Share permissions previously made through the team (but not Shares made on an individual basis).

Team members can remove themselves from a team, unless they are the last admin member of the team. (A team must have at least one admin.) When a member is removed from a team, any document shared with that user through the team becomes unshared and removed from their Documents list.

A team admin may delete the team at any time. Upon deletion of the team, all documents shared with the team become unshared from the team members and removed from their Documents lists.

As with all sharing operations, the following permissions can be assigned during the Share operation:

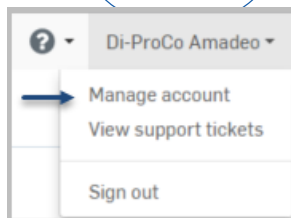
- View - open for read only access
- Edit - open and make changes
- Edit and Share - open for making changes and also share with other users
- View and comment - open for viewing and inserting comments; no editing allowed

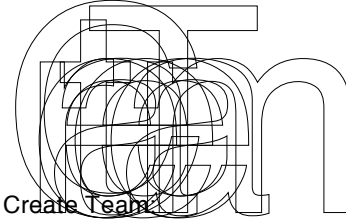
Following are instructions for:

- Creating teams and adding members
- Removing members and admins
- Deleting a team
- Additionally, see information about [Sharing and assigning permissions to documents](#)

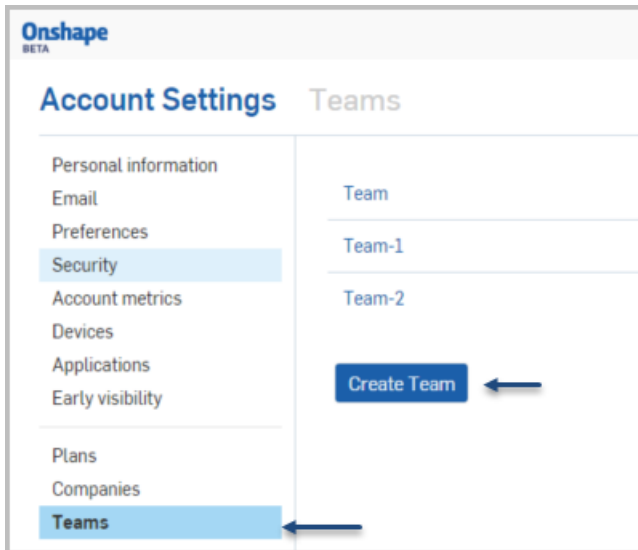
Creating teams and adding members

1. Expand the menu under your user name in the top right corner of the page and select Manage account.





- On the page that appears, select Teams from the left panel and click Create Team.



- Enter a name for the team, and a description, or statement of purpose:

4. Click Create team.

← **Team-Design** Team

Team name:
Team-Design

Description:
The team doing the actual design work.

Team members (1)

	Di-ProCo Amadeo	damadeo101@onshape.com	Admin	×
--	-----------------	------------------------	-------	---

Add team members:

Email(s) Member Add

Delete team

5. Add members by entering individual email addresses (or copy/paste a comma-separated list of addresses), select a role (Member or Admin).
Note that you can return to this page and change a team member's role.
6. Click Add.
7. When finished adding team members and assigning roles, click the arrow to the left of the team name (at the top of the page) to return to the Accounts page.
8. You see the new team listed on the Teams page:

Account Settings Teams

Personal information
Email
Preferences
Security
Account metrics
Devices
Applications
Early visibility

Plans
Teams

Team-1	Admin
Team-2	Admin
Team-Design	Admin

Create Team

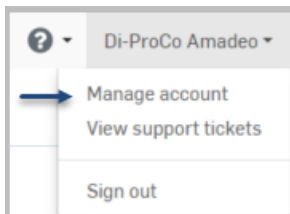
Creating a team also adds a filter for that team in each member's Documents filters on their Documents page. These filters list all documents shared with a particular team.



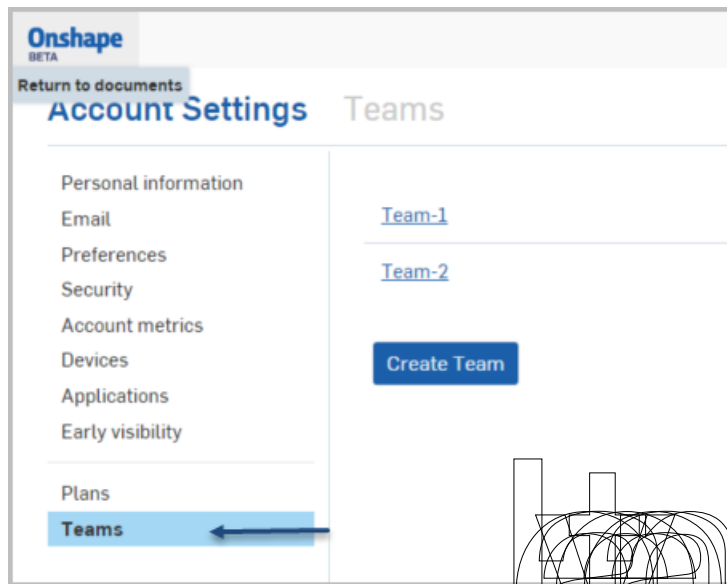
Removing members and admins

Members can remove themselves from a team, and any member with an Admin role can remove users including themselves as long as they are not the only administrative user left. Users removed from a team receive an email notification and are removed from the Share list of any document shared with the team. Those documents are removed from the user's Documents page.

1. Expand the menu under the user name in the top-right corner of the page and select Manage account.

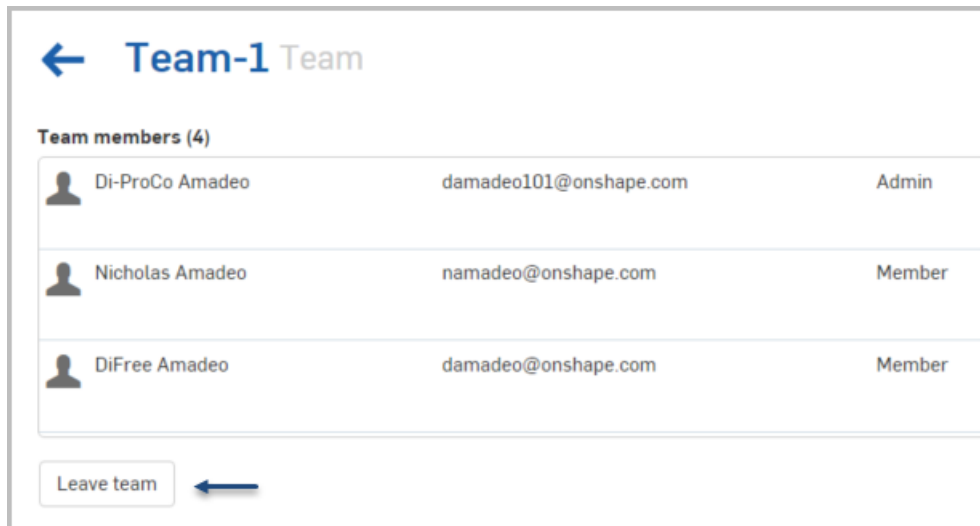


2. Select Teams in the left panel to access the list of teams of which you are a member:



3. Select the team in the list from which you wish to remove yourself or another member:

- To remove yourself (as a member): Click Leave team



- To remove yourself (as an admin): Click the X to the left of your name (Note this only works if there is another admin still on the team).

← Team-2 Team

Team name:
Team-2

Description:
empty

Team members (4)

	Di-ProCo Amadeo	damadeo101@onshape.com	Admin	X
	DiCo Amadeo	damadeo99@onshape.com	Admin	X
	Nicholas Amadeo	namadeo@onshape.com	Member	X

Add team members:

- To remove another user: Click the X to the left of the user name (Note this only works if you are an admin).

Deleting a team

Any Admin of the team can delete the team at any time. This immediately removes the share permissions for all documents shared with the team and removes the documents from each member's Documents list.

Managing Companies

The Onshape Company Professional plan enables you to pay for multiple users, and thereby create a Company within Onshape: a named, user-visible Onshape entity for centralized billing, ownership and sharing for a set of Professional plan users all on the same billing subscription and plan.

A company is created at the time of the Company Professional plan signup:

Onshape

Buy Onshape Professional

If you already have an Onshape account, please [sign in and upgrade](#).

Plan type

☐ Individual ☒ Company [?](#)

Create company plan owner account

Company Professional Plan details

Number of users paid for by your company:

(including the plan owner)

☒ Paid monthly **\$100 Monthly per user**

☐ Paid yearly

Credit card

[?](#)

☐ I agree to the [Onshape Terms & Privacy](#)

Purchase summary

Onshape Company Professional

[Compare plans](#)

Details

Users: **2**
Paid: **Monthly**
\$100 user / month

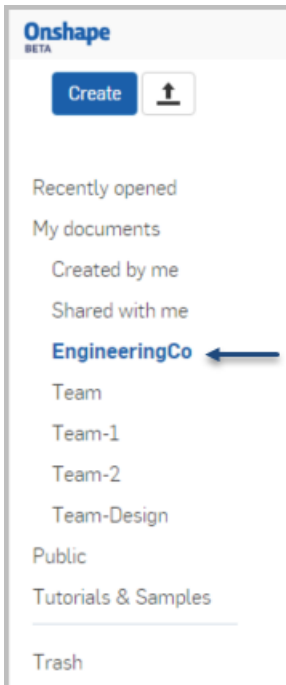
Subtotal	\$200
Discount	\$0
Taxes	\$0
Total	\$200

The user who signs up and agrees to pay for the Company Professional plan becomes the owner of the company. All users listed on the plan receive notification emails when they are added to the company (and if they are removed from the company).

If an existing Free plan user is listed as belonging to a Company Professional plan, that user's plan is automatically upgraded to Professional and the company is charged. Any Onshape user can be paid for and included in a Company Professional plan, and multiple Professional plans.

Documents and company ownership

When creating private documents, users who are company members have the choice to select an owner for the document (themselves or a company). When a company is created, a document filter is automatically created and included on the Documents page for all members. Documents owned by the company are listed by the filter:



The creator of a document, the Company owner, and admins are the only users with Full Access to the document, meaning that only they can delete the document. All members of a company can share all company-owned documents that they have access to.

At any point, the Company owner and admins of the Company can remove the user who created the document completely from having any access to the document, and add them back as a collaborator with certain permissions. Permissions can be:

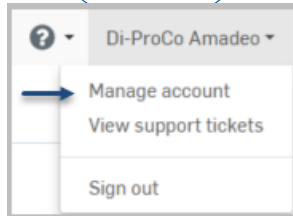
- View - open for read-only access
- Edit - open and make changes
- Edit and Share - open for making changes and also share with other users
- View and Comment - open for viewing and inserting comments; no editing allowed

Following are instructions for:

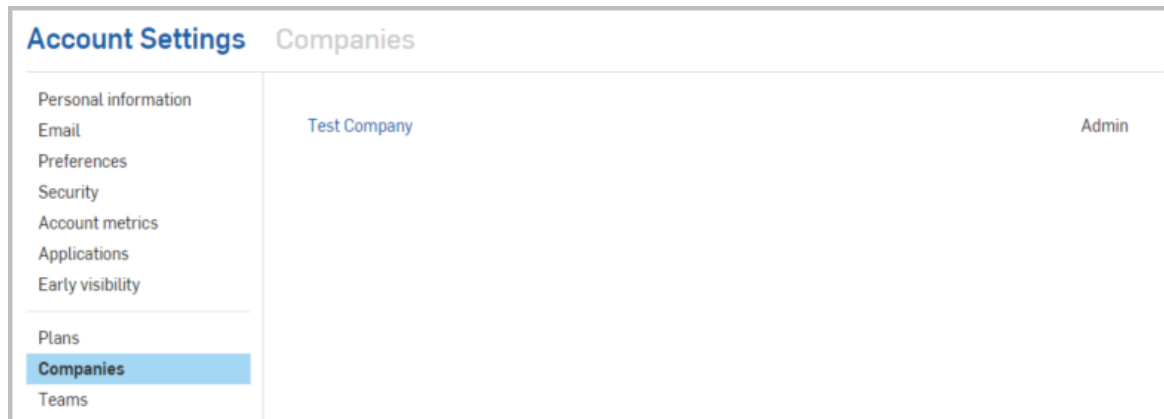
- Adding and removing company members
- Creating company-owned documents
- Removing permissions
- [Sharing documents and assigning permissions](#)

Adding and removing company members

1. Expand the menu under your user name in the top right corner of the page and select **Manage account**.



2. Select **Companies** in the left pane:



- Click the company name link to edit company and membership details:

← **Test Company** Edit details

Company name: Test Company

Description: Empty

Company address: Address
City State
Zip code Country

Number of users you are paying for: 5 users

	Sarah Planco	damadeo+111@onshape.com	Admin
	Nicholas Amadeo	namadeo@onshape.com	Member
	Smith Smythe	damadeo+112@onshape.com	Member


Add users

Member Add

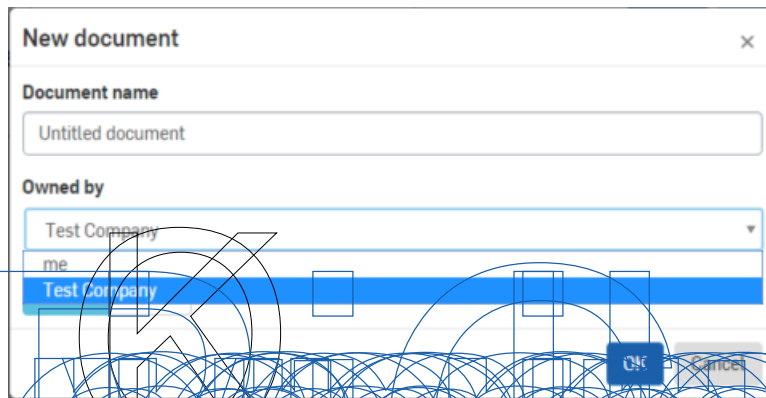
- When you have finished, click the left arrow to return to Manage account page.

Creating company-owned documents

Adding users to a company can only be done by a company Admin or Owner. Users added to a company receive a notification email. All company members can create company-owned documents, but only the company owner and admins can delete company-owned documents.

- Click .
- Specify a document name.

3. In the Owned by drop down, select a company name:



The screenshot shows a 'New document' dialog box. At the top, there's a close button (X). Below it, the 'Document name' field contains 'Untitled document'. Underneath, the 'Owned by' section has a dropdown menu with 'Test Company' selected. To the right of the dropdown, there are checkboxes for 'me' and 'Test Company', with 'Test Company' being checked. At the bottom right, there are 'OK' and 'Cancel' buttons. The 'OK' button is highlighted with a blue border.

4. Click OK.
5. In the company filter on the Documents page (for every company member), the newly created document is listed.

Removing companies & Canceling plans

Only the owner of the company can cancel the plan (thereby transitioning all members without another Professional plan to Free plans).

Canceling a company plan also transitions the owner of the company to a Free plan (unless this user is also a member of another Professional plan) and all company-owned documents are kept in the company owner's account. These documents are also removed from the Documents list of all other company members and they no longer have access to them. Each member retains their private documents, however. For more information, see [Canceling Professional Plan](#).

Two-Factor Authentication

Onshape highly recommends taking advantage of our two-factor authentication functionality. Two-factor authentication (2FA) allows you to configure your Onshape account to require more than just a single password to sign in. Using one password to sign into a website makes you more susceptible to security threats because one piece of static information may be easy to guess or acquire. With 2FA, a second piece of information is required, and that second piece of information is generated dynamically during the sign in process, and can be different each time you sign in.



We highly recommend you use 2FA for Onshape and for all websites you use that support it.

How it works

Download a two-factor authentication app (like Google Authenticator) to your phone and set it up with Onshape through the Onshape user interface. This enables the app to generate a one-time code that Onshape can recognize. Once you enable 2FA in Onshape, Onshape will prompt you for the 2FA code after you sign in with your password.



You can allow the 2FA mechanism to remember the devices on which you sign in so that once you use 2FA authentication to sign into Onshape from a specific device, you won't need a 2FA code to sign in on that device again.

Enabling and using two-factor authentication

1. Download a two-factor authentication app to your smartphone.

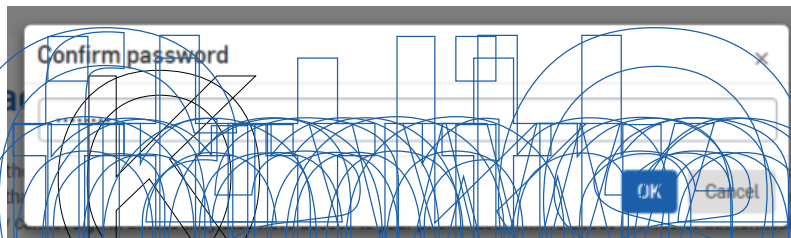


Google Authenticator is one example.

2. Sign in to your Onshape account.
3. In the menu under your username, select Manage Account.
4. On the *Security* tab, click Security.

5. Click Enable.
6. Click Set up two-factor authentication.

7. Confirm password:

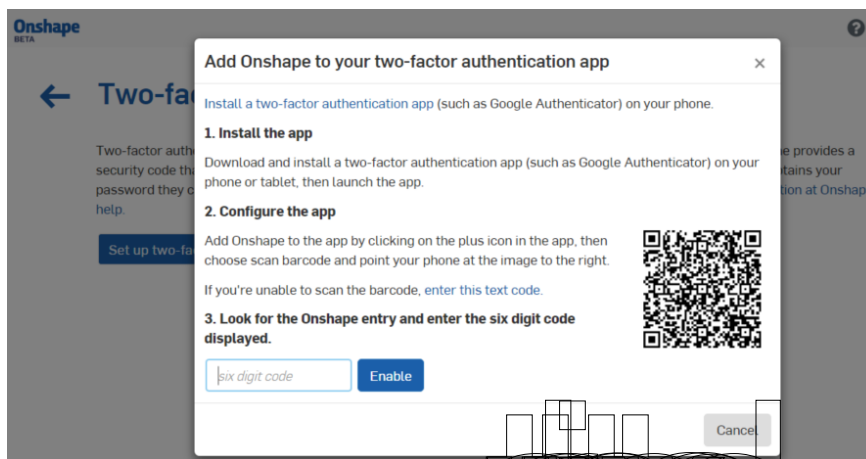


8. Click OK.

Configure the app to work with Onshape

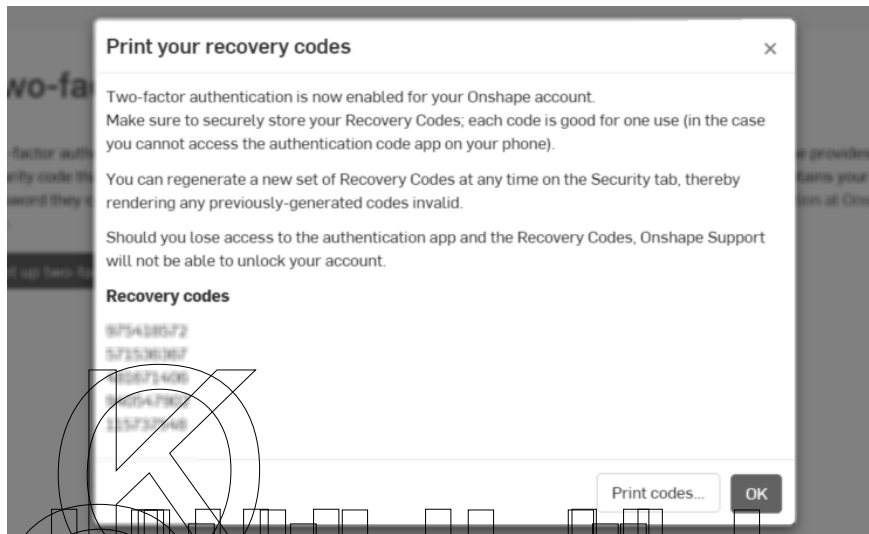
Continuing from the instructions above:

1. Use the Authenticator app on your smart phone to scan the QR code presented in the Onshape user interface:



- Once registration is complete, the phone app will list a code for each registration you create. It is these codes that you enter into Onshape when presented with the 2FA sign in page.
- If you can't use the QR code, click the [enter this text code](#) link provided in the Onshape interface to obtain a code.

2. Enter either the six-digit code that the 2FA app generates or the code supplied by Onshape.
3. Click Enable.
4. When the recovery codes are displayed, copy them to a safe place; you will need access to them in the event you do not have your phone or the authentication app.



5. Click OK



Onshape provides you with 5 active recovery codes at a time. Keep these codes in a place accessible to you separate from your phone or the authentication app.

Onshape will not be able to help you should you delete the app or lose your phone.

Note that you can generate these Recovery codes at any time through the Onshape interface but only the most recently generated series are active at any one time. Once you use a code it is no longer valid. When you generate a new list of codes, all previous codes (used or unused) become invalid.

Sign in to Onshape with code

When two-factor authentication is enabled, Onshape prompts you for a code upon sign in:

1. After you enter the password to your Onshape account, you are prompted for the authentication code:

Two-factor authentication

Open the two-factor authentication app on your phone to get your authentication code.

?

☐ Remember this computer for the next 30 days

Verify

Don't have your phone? [Enter a two-factor recovery code](#)

2. Open the two-factor authentication app on your device and enter the code generated.
3. Click Verify.

In the event that you don't have access to the app, you can click the Enter a two-factor recovery code link to enter one of your current recovery codes.

Disable two-factor authentication in Onshape

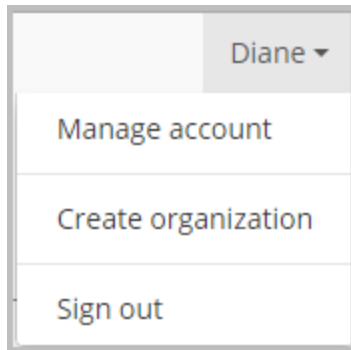
You can disable (and re-enable) two-factor authentication at any time.

1. On the *Security* tab of the User Profile page in Onshape click **Manage**, and then **Disable**.
2. Confirm password:

3. Click OK.

Reset Password

1. Expand the menu under your user name and select **Manage account**.



2. Select the **Security** tab:

A screenshot of the Onshape 'Security' settings page. The page has a header with four tabs: 'Profile', 'Settings', 'Security' (which is selected and underlined), and 'Billing'. Below the tabs, the 'Password' section contains three input fields: 'Old password', 'Password', and 'Confirm password', followed by a blue 'Update password' button. The 'Two-factor Authentication' section shows the status as 'Off' and a blue button to 'Set up two-factor authentication'. At the bottom, there is explanatory text about two-factor authentication and a link to 'Learn more about two-factor authentication at Onshape help.'

3. Enter the old password, the new password, and re-enter the new password.

The list of guidelines leads you through creating a password. Each requirement is checked when your password fulfills the requirement:

← Password

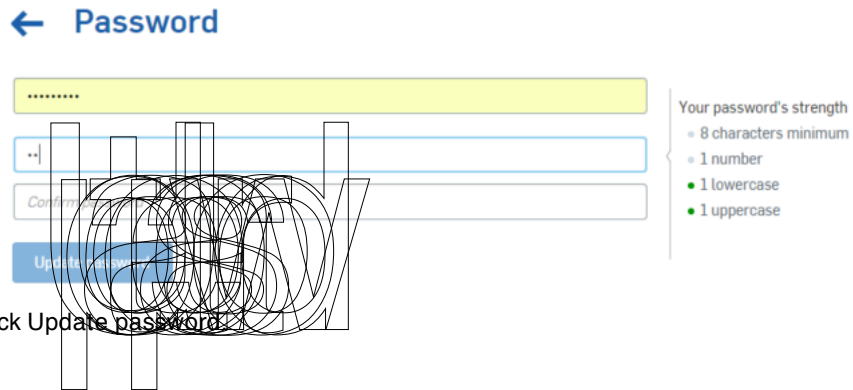
..|

Confirm

Update password

Your password's strength

- 8 characters minimum
- 1 number
- 1 lowercase
- 1 uppercase



4. Click Update password.

Plans and Payment FAQs

How much do the Onshape plans cost?

Onshape's Professional plan is \$100/month. Onshape's Free plan is \$0/month. Call for pricing on the Enterprise plan.

What is the difference between the Professional plan and the Free plan?

The Professional and Free plans have far more similarities than differences. Most importantly, the Free plan includes all of the same CAD and data management functions as the Professional plan.

The key difference is that the Free plan has limits on the number of private documents you can create, and how much storage you can use. The Professional plan has no limitations.

With the Free plan, you can create up to 10 private documents, using less than or equal to 100MB of storage. You can create public documents using up to 5GB total storage (including the 100MB for private documents). You can access any public documents (only those created by you count against your storage limit). You can delete documents in order to create new ones, but these must be emptied from Trash before the limits are refreshed.

What is the difference between a monthly subscription and an annual subscription?

You are only billed once a year for your annual subscription, and therefore can avoid the administrative hassles of monthly expense approvals or reimbursements. You are also guaranteed the current monthly rate when you purchase an annual subscription.

Does Onshape store my credit card information?

No. Onshape never stores your credit card information.

How do I change my credit card information?

You can change your credit card and other payment information through the Manage account option on the User menu, located in the drop down of your user name in the user interface. Select Plans in the left pane to access your Onshape plan information.

When is my credit card charged?

Your credit card is charged when you sign up for a plan, when you add users to your plan, and at the beginning of every payment cycle.

Why did my credit card transaction fail?

Declines can happen for a variety of reasons, and in many cases only your card-issuing bank can tell you definitively why your attempted charge was declined. Banks use automated systems to determine whether or not to accept a charge. These automated systems can take various pieces of data into account, such as your spending patterns, account balance, and card-specific information like the expiration date and CVC.

It may be that you entered one of the required pieces of information incorrectly or perhaps the decline was the result of a fraud protection program. Please contact your card-issuing bank for more information; and if the problem persists, feel free to contact us.

Can I cancel my Professional plan?

You can change your Onshape plan to a Free plan at any time, for as long as you like. Your private Onshape data stays private, and stays available in your account.

Your Professional plan remains active for the duration of the payment period, and you are converted to a Free plan at the conclusion of the active payment period.

Exceptions to this include:

- If you belong to more than one Professional plan, being removed from one plan means you are still on the other Professional plan so you are not downgraded to the Free plan in this case.
- If you belong to a Company Professional plan, you must request to be removed by the company owner. Upon removal from the company, you are immediately downgraded to Free unless you are not a member of another Professional account.

Do I get a refund when I cancel my Professional plan?

No, your plan becomes transitioned to Free at the end of the current payment cycle. The exception to this is if you are being removed from a Company Professional plan that is your only Professional plan. In this case you are immediately downgraded to Free.

If I cancel, what happens to my documents?

You can change your Onshape plan to a Free plan at any time, for as long as you like. Your private Onshape data stays private, and stays available in your account.

Your private documents remain private and your public documents remain public. To adhere to the Free plan limitations, you choose which documents to remove and which to activate for access.

Can I centralize payment for several users?

Yes, sign up for a Company Professional plan to pay for multiple users and create a company account. When you sign up for this plan, you designate a company owner. Once the sign up process is completed, the company owner adds company members to the plan through the Manage accounts page in the user interface.

How does payment work for multiple users on the same account?

If you add users to your account who are already part of a Professional plan, you are agreeing to pay for them as well. Users may belong to more than one plan, but not a Free plan and a Professional plan at the same time with the same account. If a user wishes to have a Free plan and also be part of a paid plan, they must use two separate Onshape accounts (indicated by different email addresses when they sign up).

What happens to my documents if a company owner drops me from a company plan?

Nothing happens to your documents. If your Onshape account is not associated with any other Professional plan, then you are downgraded to a Free plan (with limitations on document creation and storage space). Onshape never deletes your documents and never makes your private documents public.

If a colleague shares a document with me (a Free plan user), does it count against my limit?

Documents shared with a Free user count against the private document limit (of 10 private documents), but not to any storage limits. Free users can unshare themselves from documents at any time; but be warned that by doing so, you remove the document from your Documents page list and relinquish access to that document.

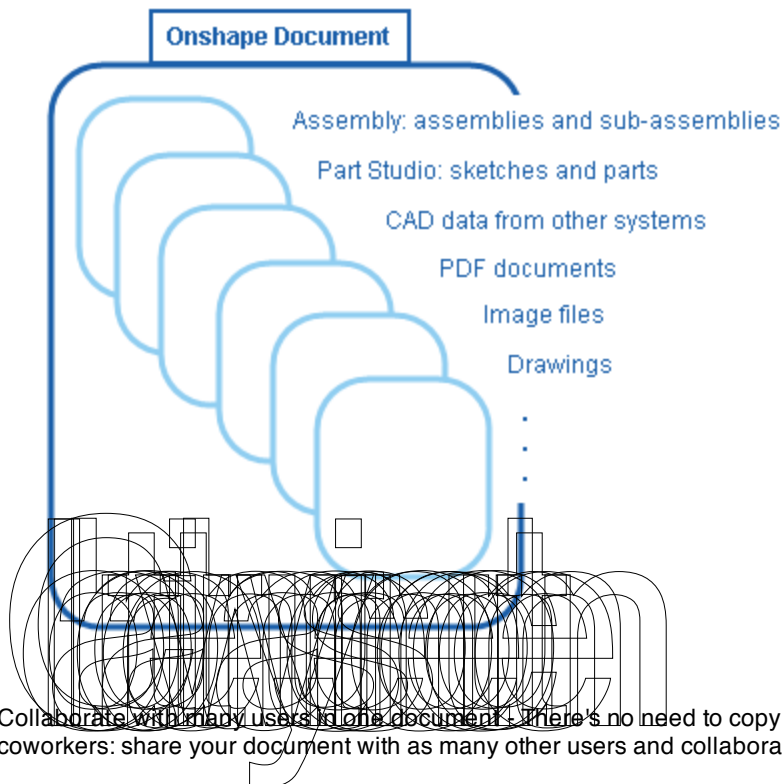
How do I get more storage for my Free plan?

You can delete documents you are no longer interested in to make room within the free 5 GB of storage, or you can upgrade to the Onshape Professional plan for unlimited storage. Note that when deleting documents, you must also empty them from Trash before the storage space is refreshed. To reduce the size of a particular document, you can copy the workspace (which removes all history points that use storage space). Be aware that by doing this, you prohibit yourself from restoring that copied workspace back to a specific point in history.

Onshape Documents

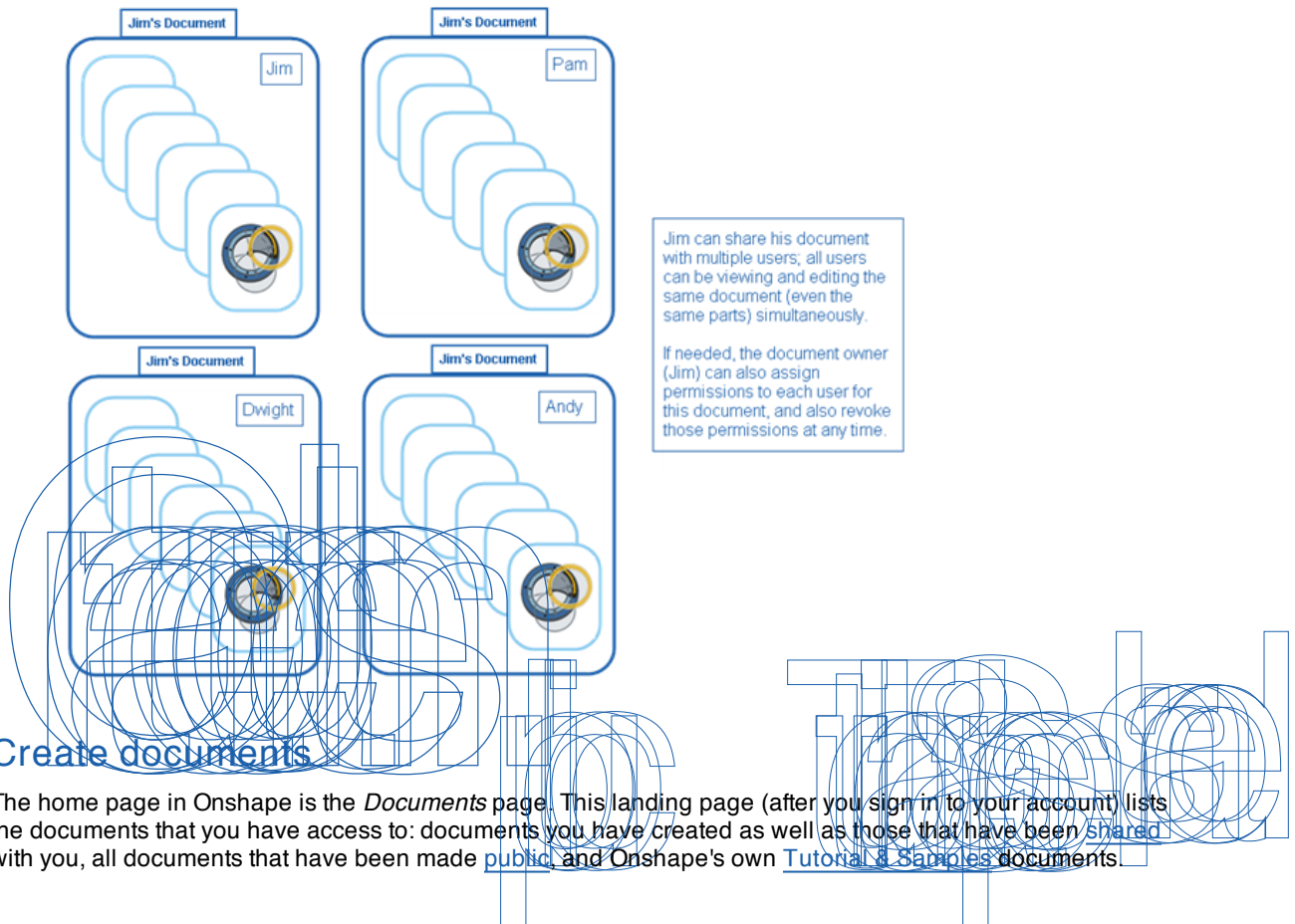
Onshape has created a new document concept within the CAD industry. Some highlights are:

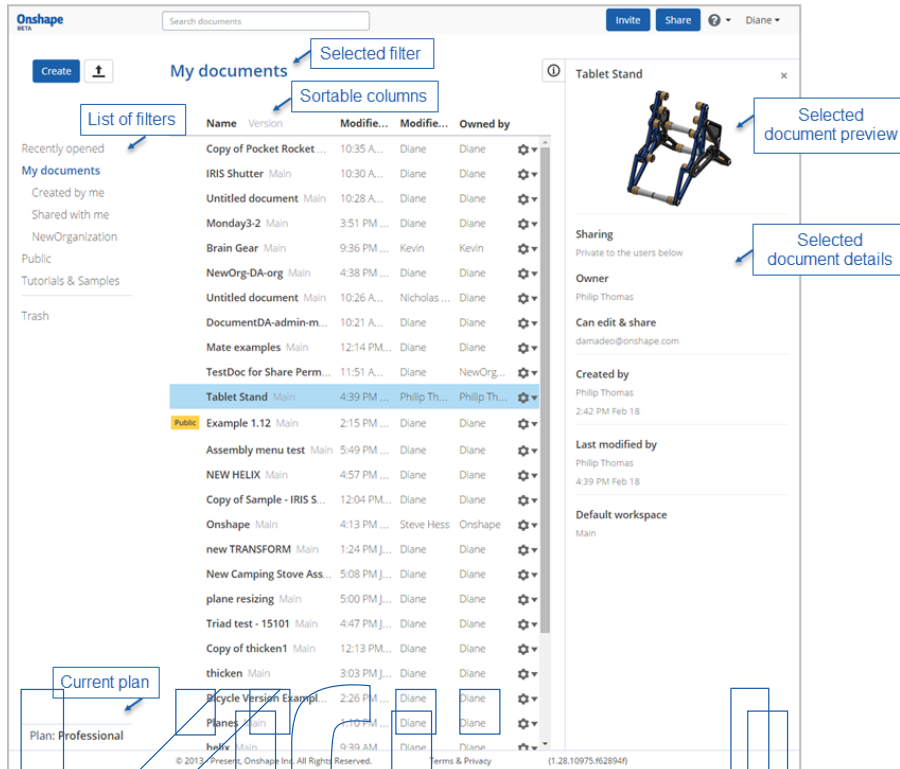
- Sketches and subassemblies (solid bodies) in the same document - All of your work can be done in a single document with complete parametric history
- Keep all project related information in one document - Onshape documents can contain any kind of data: sketches and multiple parts (solid bodies) organized in one or many Part Studios, subassemblies and assemblies organized into one or many Assemblies, drawings, and any other type of document you want to import (including CAD data from another system). All of these elements are shown in separate tabs in an Onshape document.



- Collaborate with many users in one document - There's no need to copy documents and send them to coworkers: share your document with as many other users and collaborate in the same document at the

same time





Click **Create** to create a new documents.

Click the Onshape logo in the top-left corner of the browser window (anywhere in the user interface) to return to the Documents page.

Keep project information in one document

You can keep all of your project data in one Onshape document if you wish. By default, documents contain a [Part Studio](#) and an [Assembly](#) (you can create as many as you like in one document). These are the tabs located at the bottom of the browser window when a document is open. When you open a document, the first Part Studio in the row is opened (made active) by default.

Click a document's name on the *Documents* page to open it.

Sketch and create parts in Part Studios, and assemble those parts in Assemblies. Note that you can create many parts in one Part Studio and Assemblies can contain subassemblies as well. In addition to these types of data, you can also [import](#) other files into Onshape which will appear each in their own tab, some examples are:

- PDFs
- CAD files
- Images
- Drawings

Within a Part Studio or other document element, you can:

- Duplicate a tab
- Copy a Part Studio and paste it into another document
- [Export](#) an element (sketch, planar face, part, Part Studio)

- [Translate](#) an element (Part Studio, Assembly, imported CAD files)
- Delete a tab
- Control the order of the tabs (drag and drop)

Manage documents

Onshape's [Document management](#) model allows branched editing, and merging through the [Version manager](#), and the ability to restore a document to any point in its editing history through the [Workspace history](#) feature.

Revert a document to a previous point in its history; every action made in a document is saved in the history of the document. Preview a point in a document's history before restoring to that point. Easily reverse the action since the entire history is always available.

Collaborate

Onshape is designed specifically with collaboration in mind. Documents you create can be:

- [Private](#) - owned, visible and editable only by you
- [Shared](#) - private documents that you enable other users to view, edit, or edit and share
- [Public](#) - documents you make available for viewing and copying by all Onshape users

Sharing and permissions can be reversed; all documents that are shared can be unshared and all document you make public can be made private again.

You can also delete documents you own, and also restore them from Trash, or permanently delete them from Trash.

When you create a document, you become the owner. The only exception to that is when you create a document when part of an organization. In that scenario, you can choose whether to own the document yourself, or create it on behalf of the organization with the organization admins as the owners. Owners of documents can transfer that ownership to other users, pending acceptance of the transfer.

User Interface Basics

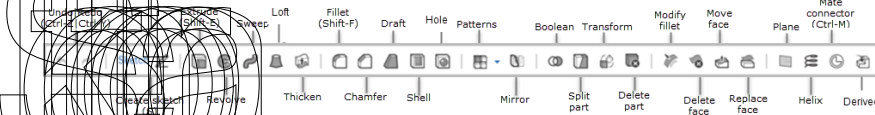
Toolbars

Located at the top of the page, these change based on the current work flow. There are 4 main toolbars:

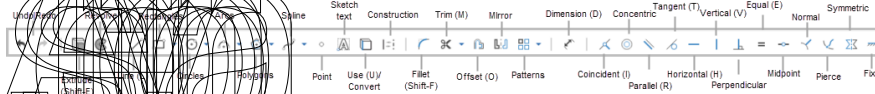
- The Document Toolbar



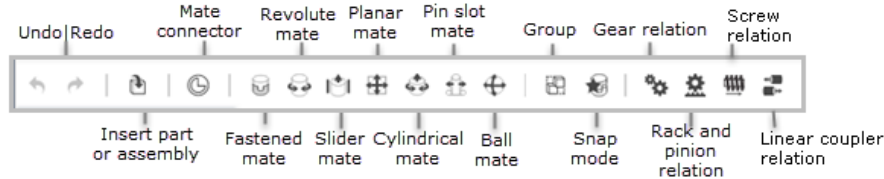
- The Feature Toolbar



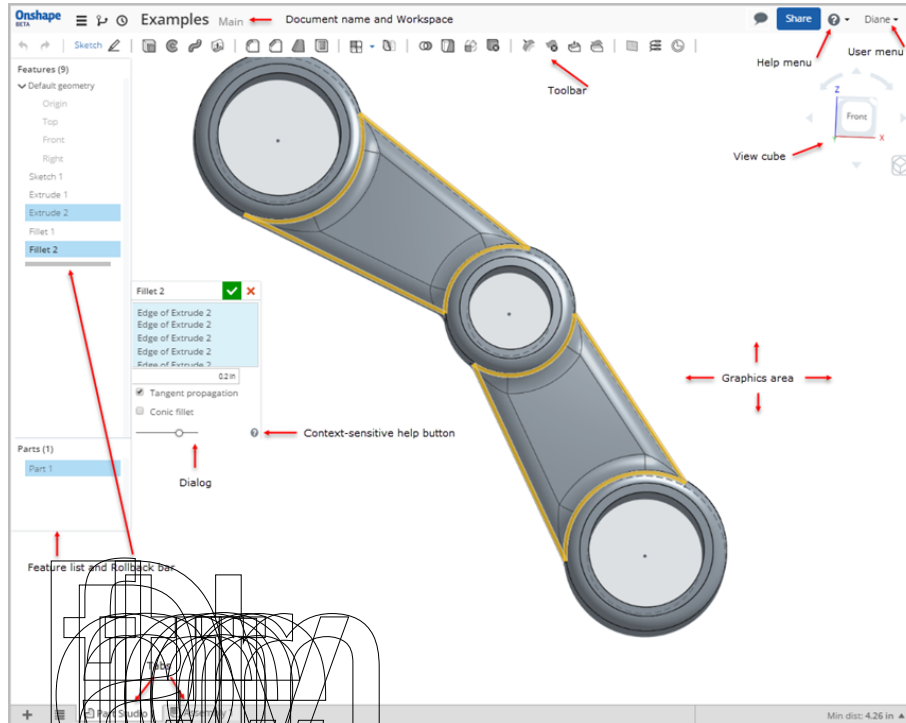
- Sketch toolbar




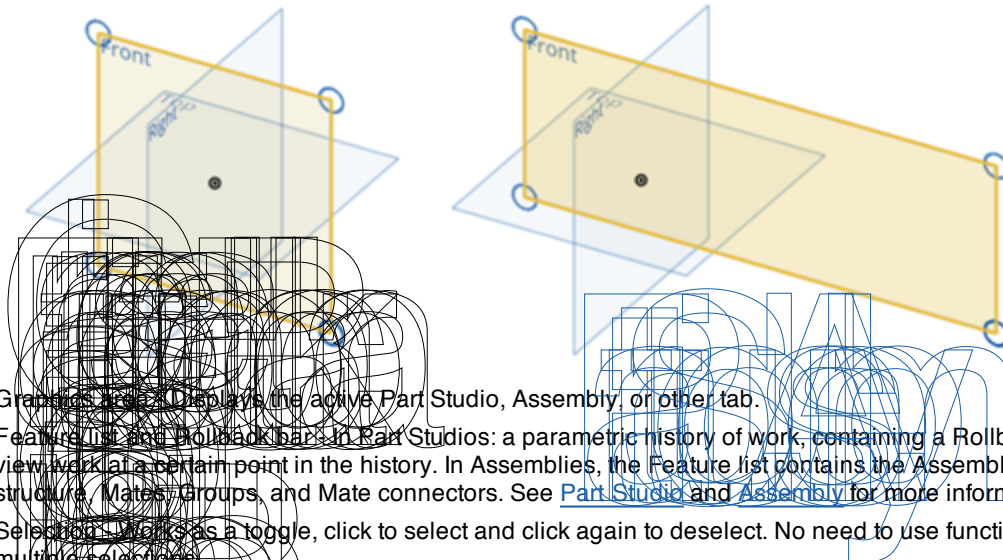
- Assembly toolbar



Part Studio interface



- **Default geometry:** Includes Origin, Top plane, Front plane, Right plane; hover over an entity in the Feature list and then use the  to toggle hide/view. Resize planes: select to activate drag handles, then drag to desired size:



- **Graphics area:** Displays the active Part Studio, Assembly, or other tab.
- **Feature list and Rollback bar:** In Part Studios: a parametric history of work, containing a Rollback bar to view work at a certain point in the history. In Assemblies, the Feature list contains the Assembly tree structure, Mates Groups, and Mate connectors. See [Part Studio](#) and [Assembly](#) for more information.
- **Selection:** Works as a toggle, click to select and click again to deselect. No need to use function keys for multiple selections.
- **Dialogs:** Mechanism for creating and editing features. A solid blue field requires selection in the graphics area (click on a sketch, region, part, etc). A field outlined in blue requires keyboard input.
- **Undo and Redo:** Undo and redo; undo the last successful action, redo the last undone action; available per user, per tab, per session.

- **Context menus** - Available for all features and tab (right-click on the feature or tab).
- **Error indicators** - Color-coded feedback, messaging, constraint icons.

Keyboard shortcuts

Activate the keyboard shortcuts map right in the user interface by pressing the Question mark key on your keyboard. You can even pop it out of the window for continuous display.

General		Sketch		View		Drawings	
?	Keyboard shortcuts	d	Dimension	Shift-z	Zoom in	f	Zoom to fit
Ctrl-z	Undo	a	Arc	z	Zoom out	w	Zoom window
Ctrl-y	Redo	l	Line	f	Zoom to fit	d	Linear dimension
Shift-s	Save a version	c	Circle	arrow keys	Rotate	Shift-r	Radial dimension
Space bar	Clear selection	r	Rectangle	Shift-arrow keys	Pan	Shift-d	Diameter dimension
Part Studio		m	Trim	Shift-1	Front view	n	Note annotation
s	Sketch	o	Offset	Shift-2	Back view	Ctrl-q	Update drawing
Shift-f	Fillet	Shift-f	Fillet	Shift-3	Left view	l	Line
Shift-e	Extrude	u	Convert/Use	Shift-4	Right view	Ctrl-s	Display sheet menu
Ctrl-m	Mate connector	v	Vertical	Shift-5	Top view	PgDn	Next sheet
Shift	Lock mate inference	h	Horizontal	Shift-6	Bottom view	PgUp	Previous sheet
Assembly		i	Coincident	Shift-7	Isometric	Home	First sheet
m	mate	t	Tangent	n	Normal to	End	Last sheet
Ctrl-m	Mate connector	e	Equal	p	View planes toggle		
i	Insert dialog	b	Parallel	Shift-left arrow or Shift-right arrow	In-plane toggle		
Ctrl-c	Copy	x	Extend				
Ctrl-v	Paste	Shift	Disable inferencing				

General		Sketch		View		Drawings	
Shift	Lock mate inference	Ctrl/Cmd c	Copy				
Escape	Cancel active command	Ctrl/Cmd v	Paste				
j	Hide/show mate						
k	Hide/show mate connectors						

View Navigation and Viewing Parts

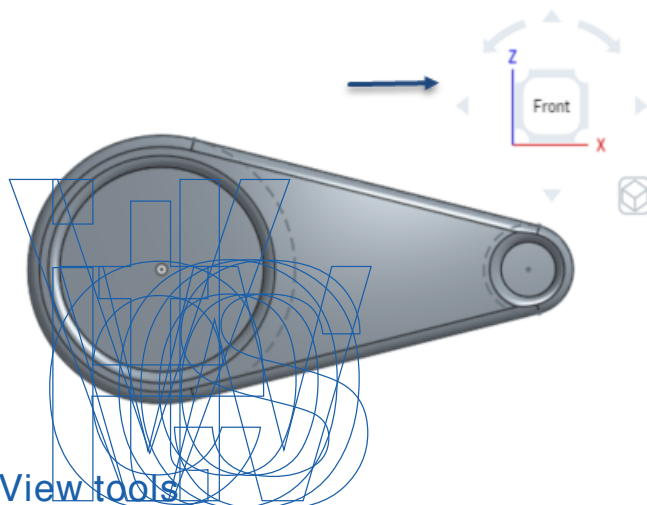
View navigation

Windows	Mouse	3D Rotate: Left mouse-button-click+drag
		Zoom in and out: Scroll up and scroll down, respectively
		2D pan: Left mouse-button+drag (middle button click+drag)
	Touchpad	3D Rotate: Left mouse-button-click+drag
		Zoom in and out: Pinch out and pinch in, respectively
		2D pan: Right mouse-button+drag
Apple Mac	Mouse	3D Rotate: Right mouse-button-click+drag
		Zoom in and out: Scroll down and scroll up, respectively
		2D pan: Left mouse-button+drag (middle button click+drag)

Rotate the view in 45 degree increments: Click arrows around the View Cube.

Return to the Trimetric view: Click one of the small bubbles at the corners of the View Cube.

View a particular plane view of the cube: Click one of the sides of the View Cube (Top, Bottom, Front, Back, Right, Left)



View tools

The small cube, View Tools, offers these viewing options: