



Lite3D 2024.2

3DHTML User Guide

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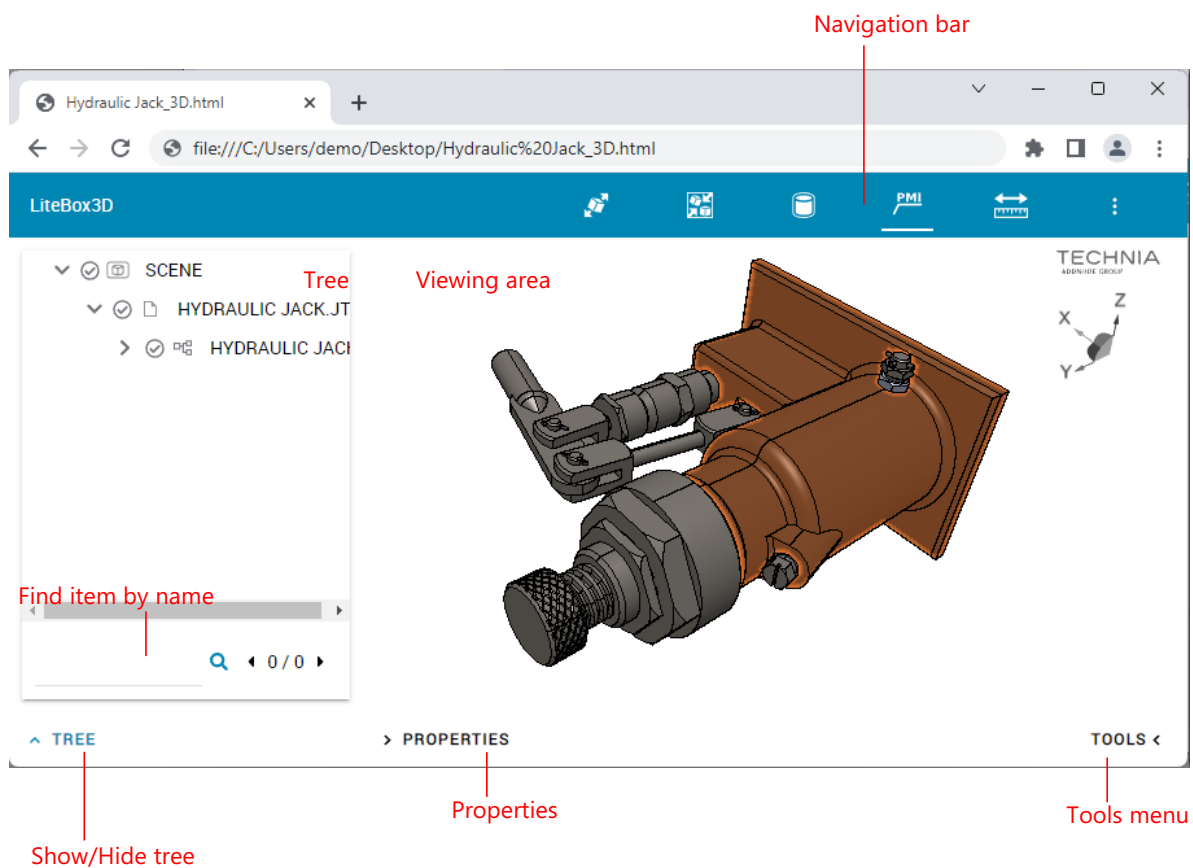
About 3D HTML

3D HTML is an HTML document with an embedded 3D viewer application. You can view such documents in any modern browser with support for [WebGL](#). No client-side installation or browser plugin is required.






You can publish your own JT models as 3D HTML documents using [LiteBox3D Pro](#) or the Lite3D HTML batch converter.

User interface reference

A 3D HTML document may include the following menus, toolbars and buttons, and additional elements, depending on the template used to create the document.



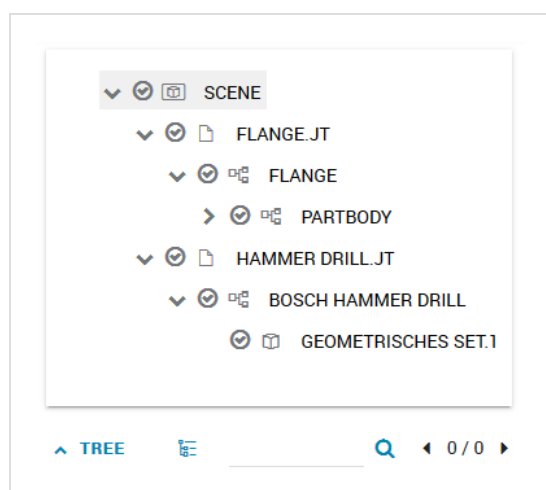
Navigation bar

 Fit in item	Fit the selected item into the scene.
 Fit all in	Fit all items into the scene.
 Shading mode	Choose between a shaded visualization with or without edges.
 Show or hide PMI	Show or hide PMI elements.
 Measurements	Select the measurement tool to take measurements. See Measurements .

Menu





☰ Menu	If the navigation bar is too narrow to show all controls, some of them are moved to the menu.
☰ Menu > Help	Display the 3D HTML user guide (this document).
☰ Menu > About	Display the software version and the list of Open Source software used in the LiteBox3D Webviewer.
☰ Menu > Error history	The error history contains client error messages for the current session.

Tree






To	Do this:
Show or hide the tree	Click <i>Tree</i> on the bottom toolbar.
Find tree items by name	Type into the text box and press <input type="text" value="ENTER"/> . Click the arrows to find the previous or next match.

Tree items

	Scene
	Model file
	Assembly
	Part

Controls

	Hide or show this item
	Expand or collapse this node
	Isolate the selected item

Viewing area

You can manipulate the viewing area with the following actions:


	Mouse	Touch screen
Select	Left-click	Tap
Show the context menu	Right-click	Press and hold, then release
Move	Press right button, and drag	Press and hold, then drag
Rotate	Press left button, and drag	Drag
Zoom	Scroll the mouse wheel	Pinch (move two fingers apart or toward each other)



Context menu

The context menu contains commands to isolate or hide the current selection, or show all elements.

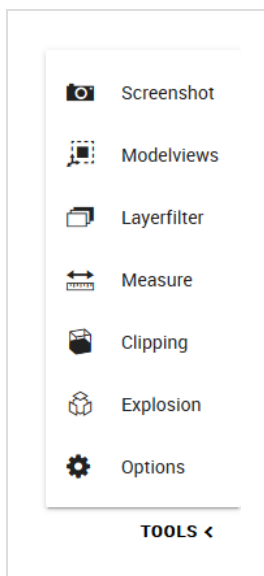
Properties

Click the Properties button to show or hide a list of properties of the selected item.

Click the eye icon  in the list header to hide or show hidden properties.

	Name	Value
	Type	Body
	JT_PROP_MEASUREMENT_UNITS	millimeters
	LAYER	295

Tools menu



Tools > Take a screenshot of the current viewing area. The screenshot opens in a new browser tab or window.

Screenshot To save the screenshot as PNG image, right click the screenshot and choose *Save image* from the context menu.

Tools > Choose a modelview from the list.

Modelviews

Tools > Choose a Layer Filter from the list.

Layerfilter

Tools > Cut through the model with clipping planes.

Clipping See also: [Clipping](#)

Tools > Show an exploded view of parts and assemblies.

Explosion See also: [Explode](#)

Tools > • *Hide measurements*: Show or hide all measurements.

Measure • *Global units*: Choose the measurement units.

• *Font size*: Use the slider to adjust the font size of measurement labels.

See also: [Measurements](#)

Tools > Change viewer settings:

Options

• *Ghost Selection*: Display the selected item in full color and other items semi-transparent.

• *Bounding Box*: Show or hide a bounding box of the entire model.

• *Orthographic Projection*: Switch between perspective projection (off) and orthographic projection (on).

• *Canvas background color*: Click the color tile to pick a background color for the viewing area.

• *PMI color*: Click the color tile to pick a PMI color.

• *Part highlighting color*: Click the color tile to pick a highlighting color for selected parts.

Animation settings:

• *3D scene transition time*: Transition time in seconds between redlining scenes or model views, and for camera transitions and moving parts during redlining scenes playback. Set a value between 0 (no animation) and 5 seconds.

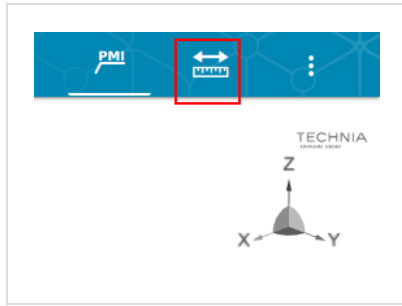
• *Redlining: Delay between scenes and part transitions*: For redlining scenes playback, this is the delay in seconds between setting the camera view angle and moving parts. Set a value between 0 (no delay) and 5 seconds.

• *Redlining: Delay between scenes*: For redlining scenes playback, this is the delay in seconds before entering the next scene. Set a value between 0 (no delay) and 5 seconds.

Measurements

With the measurement tool, you can measure straight distances, angles, point coordinates, and areas.

You can create and edit measurements while measurement mode is enabled. To enable measurements, click the Measurements button on the navigation bar:



Measurement settings

In *Tools > Measure*, you can change these settings:

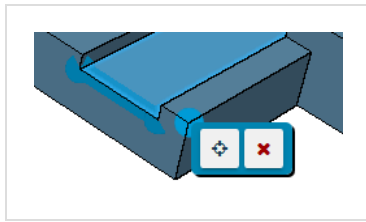
- Hide measurements: Show or hide all measurements.
- Global units: Choose the measurement units.
- Font size: Change the font size of measurement labels.

Take measurements with a mouse

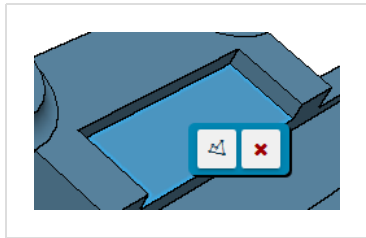
If you are using the Webviewer client on a computer with a mouse or similar pointing device, follow these instructions for taking measurements.

Measure a single item

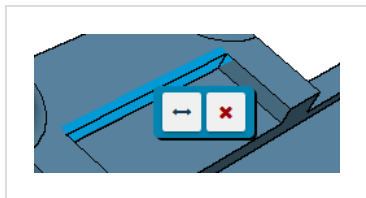
1. Click an item of the 3D geometry.



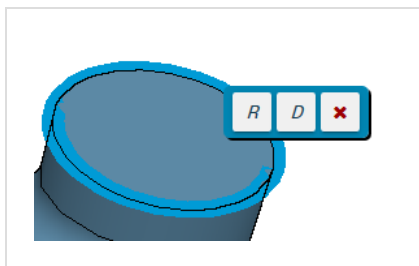
Position




Area



Length



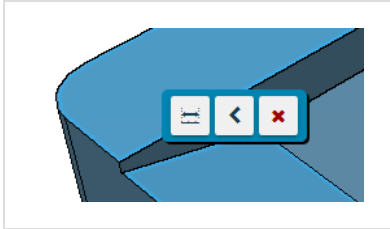
Radius (R) or diameter (D)

To discard the selection, click the Abort button. 


2. Click to place the measurement label.

Measure two items

1. Select a face or edge.
2. Ignoring the flyout toolbar, select another face or edge.
3. On the flyout toolbar, choose the dimension you want to measure:



Distance (double arrow symbol) or angle ('<', for intersecting edges)

To discard the selection, click the Abort button. 

4. Click to place the measurement label.

Delete a measurement

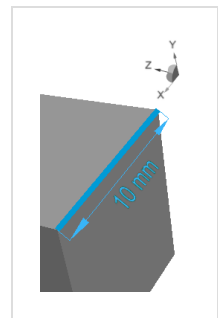
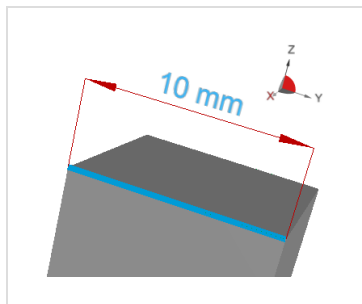
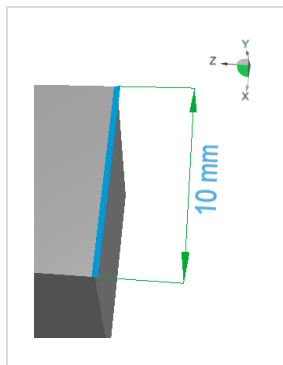
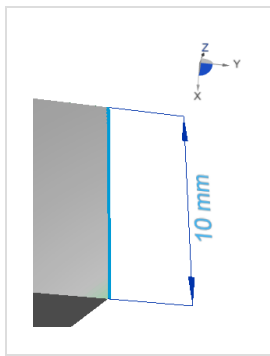
Select the measurement, then press the key.

Align measurement to view plane

Double-click the measurement.

Snap distance measurement label to principal planes

When you move a distance measurement label towards a principal plane, the label snaps to the principal plane. Colors indicate the principal plane to which the label is aligned:



Dark blue

Green

Red

Light blue

XY plane

XZ plane

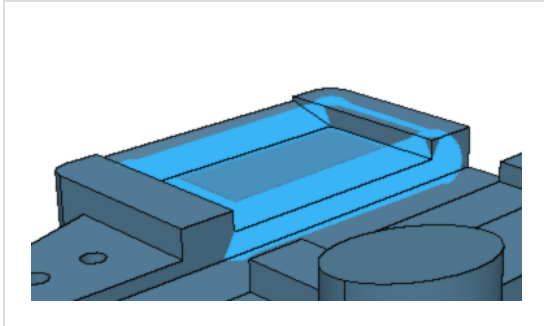
YZ plane


Not aligned

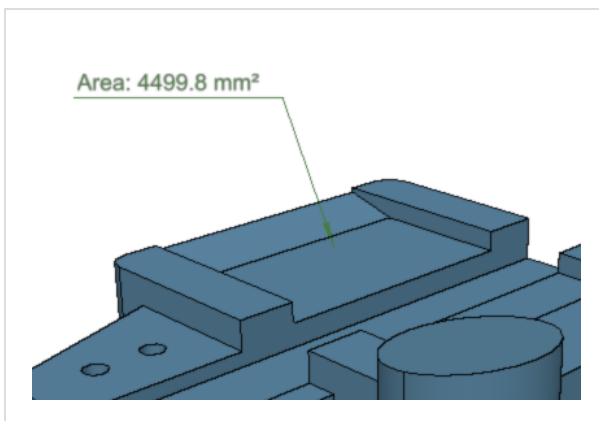
Take measurements on a touch device

Face area

1. Tap a face of the 3D geometry.

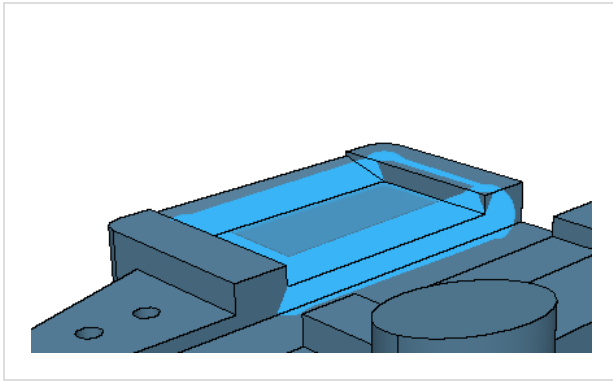


2. Tap the Area button 
3. Tap a position in the viewing area where you want to place the label.

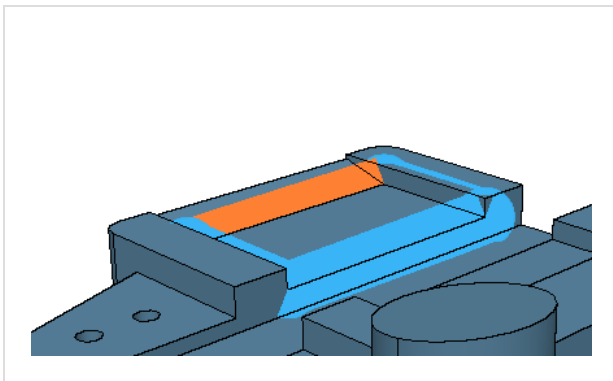




Position or edge length

1. Tap a face of the 3D geometry.

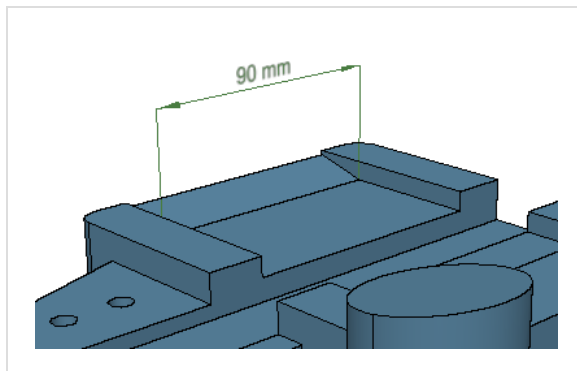


2. Tap an edge or point of the highlighted face.
3. Tap a position in the viewing area where you want to place the label.

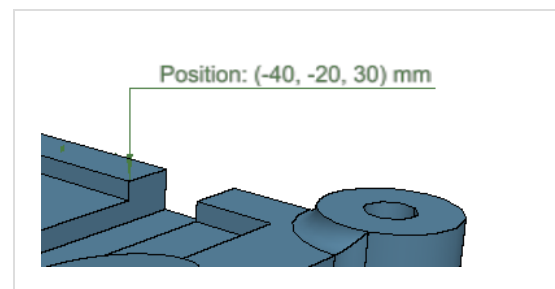


4. Tap Length  or Position 
5. Tap a position in the viewing area where you want to place the label.

Edge length:



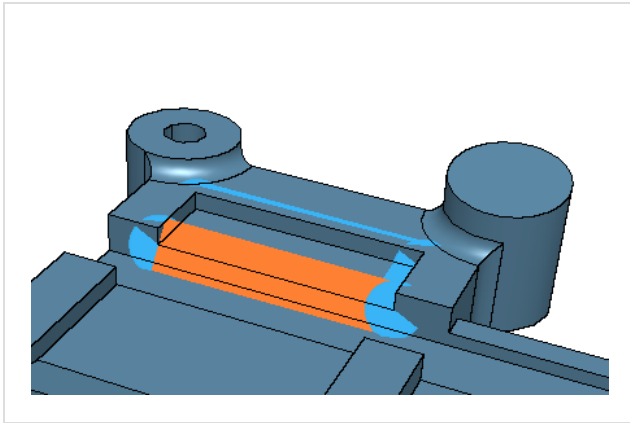
Position:



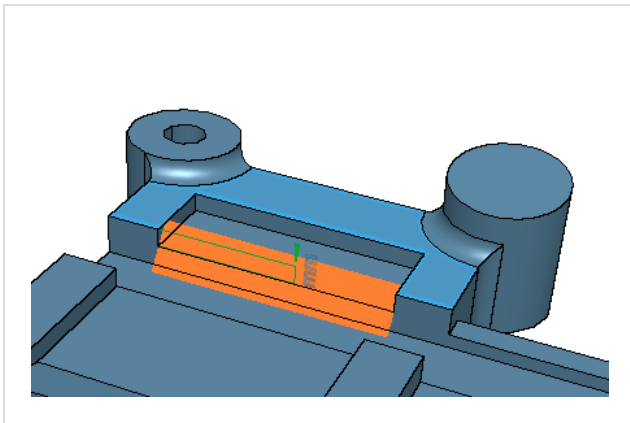
Dimensions between two items

The following instructions show how to measure the distance between a face and an edge. Other dimensions between two items can be measured in a similar way.

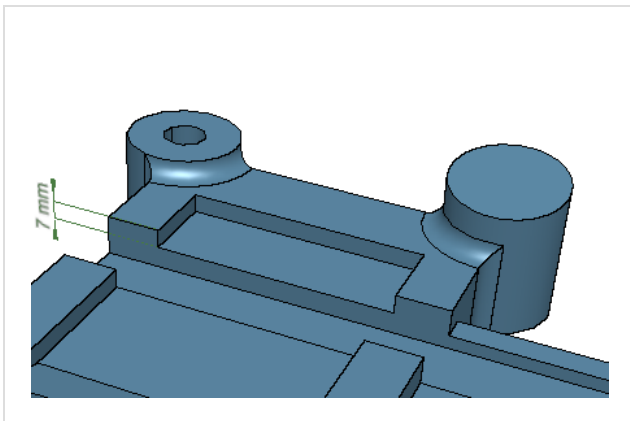
1. Choose the first item. For example, tap a face of the 3D geometry.



2. Choose the second item. For example, tap a face of the 3D geometry.

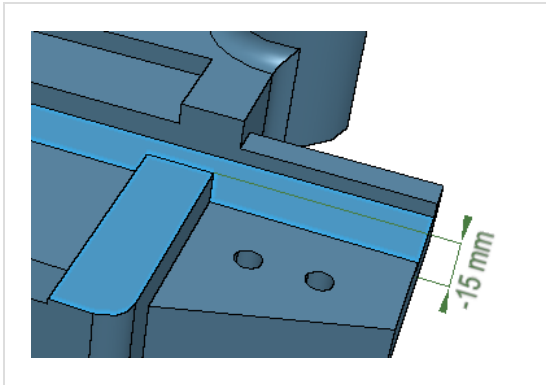


3. Tap a position in the viewing area where you want to place the label.

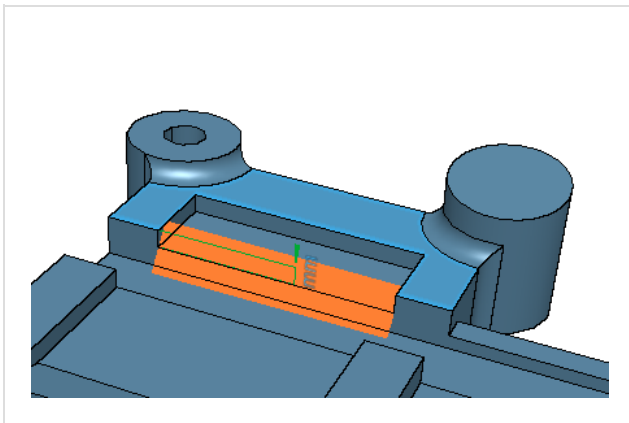


Change the position of a measurement label


1. Tap the measurement label.

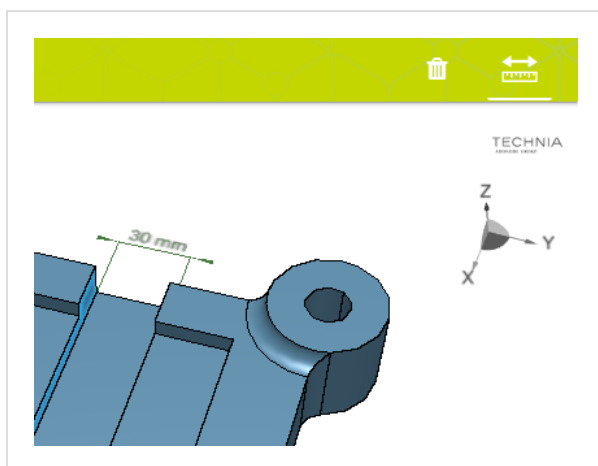


2. Tap a position in the viewing area where you want to place the label.



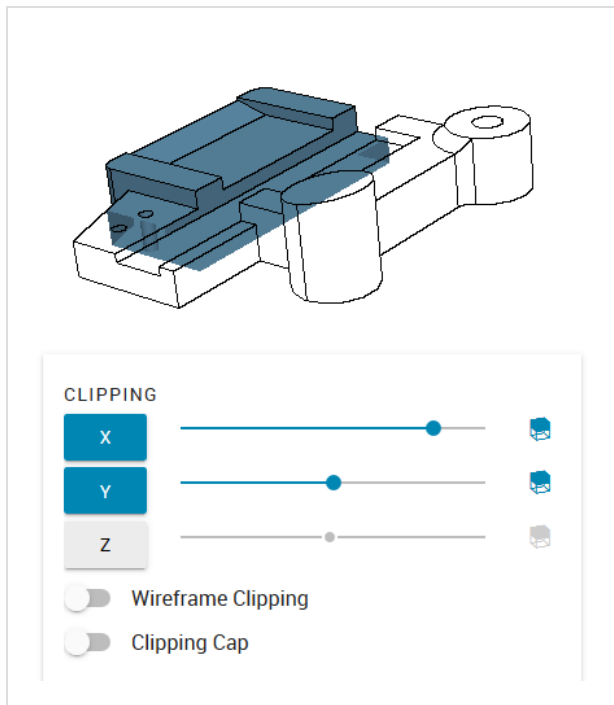
Delete a measurement

Tap the measurement, then tap Delete 



Clipping

Use *Tools > Clipping* to cut through the model.

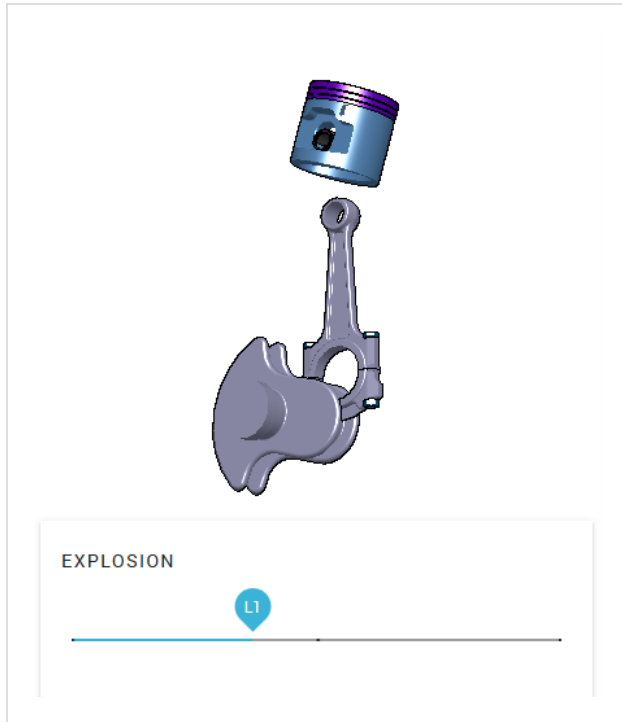


- Select the X, Y, and Z buttons to enable clipping planes which are perpendicular to the X, Y, or Z axis, respectively.
- Drag the slider to move an enabled clipping plane along the axis.
- Click the cube icon on the right to cut away the opposite side of the model.
- Select or deselect the *Wireframe Clipping* option to hide or show the wireframe of the cut away geometry. The wireframe is only displayed in *Shaded + Wireframe* visualization mode

Explosion

Use *Tools > Explosion* to show an exploded view of parts and assemblies.

The *Explosion* command is hidden by default. To show it, set `service.liteweb.ui.toolsEntries.explosion` to `true`.



- Move the slider towards the right for an exploded view.
- The top level assembly is exploded first, then the successively the lower assemblies. The current assembly level L0, L1, L2, ... is displayed above the slider
- To leave the exploded view, move the slider fully to the left.

Limitations:

- Clipping and measurements are unavailable in exploded views.
- Wireframe geometry is hidden in exploded views.

View redlining

The 3D HTML document may include *redlining* (annotations) created with LiteBox3D Pro.



Use the controls to switch between redlining scenes.

View 3D HTML on mobile devices

You can view 3D HTML documents on mobile devices.

Android

Online

You can view 3D HTML documents in a web browser over HTTP/HTTPS.

Offline

Before going offline, download 3D HTML documents to your device. Open the downloaded 3D HTML document from the file manager, or enter the URI of the local file in the location bar.

See also (external link): Google Chrome - [Download a file](#)

iOS

Online

You can view 3D HTML documents in a web browser over HTTP/HTTPS.

Offline

Before going offline, download 3D HTML documents to your device:

- In the Safari browser, open the 3D HTML document and save it for offline viewing in the Reading List. Make sure that the *Settings > Safari > Automatically Save Offline* option is selected. See also [Add webpages to a Reading List](#) (external link).
- Use apps for downloading and viewing HTML documents, for example file manager apps with a built-in browser.

Legal notices

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