



Manuals 2023 – The handbook (or Bible?)

Introduction & Overview

Dear ladies and gentlemen,

I welcome you to your guide of creating manuals based on Inventor. You probably got an assemblyfile (for instance `multiflyer.iam`) from Inventor from us. It might be a playtower, a spring rocker or a climbing frame. Out of this you will need to create a Presentation File (for instance `multiflyer.ipn`). You can see it as if you would put the assembly on a stage and the show is about how it needs to be assembled. The piece ends when you come to the point that you recreated the state of the assembly - the fully built up tower, spring rocker or climbing frame. You will be able here to move around the parts, make them invisible, creating so called 'Tweaks'. They show up as lines, clarifying the movement that needs to take place to mount things. You will create scenes and make snapshots in this process. And these snapshots you will take over in the 2D environment of Inventor (`.idw`-files).

For all of these steps we are using templates ensuring that we are all working with the same settings.

Therefore it is crucial you set them up as well !

Search for this file and double click on it:

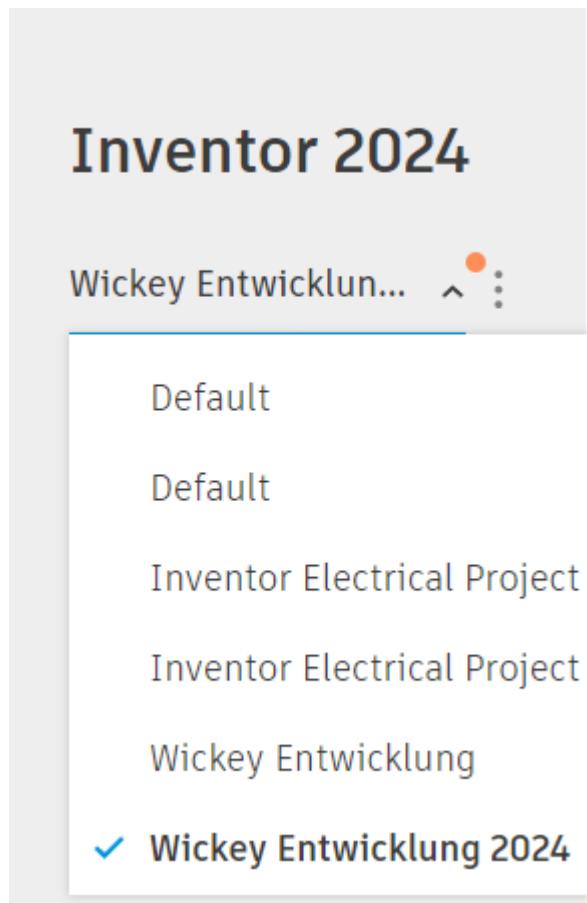
Wickey Entwicklung 2024

06.06.2023 16:32

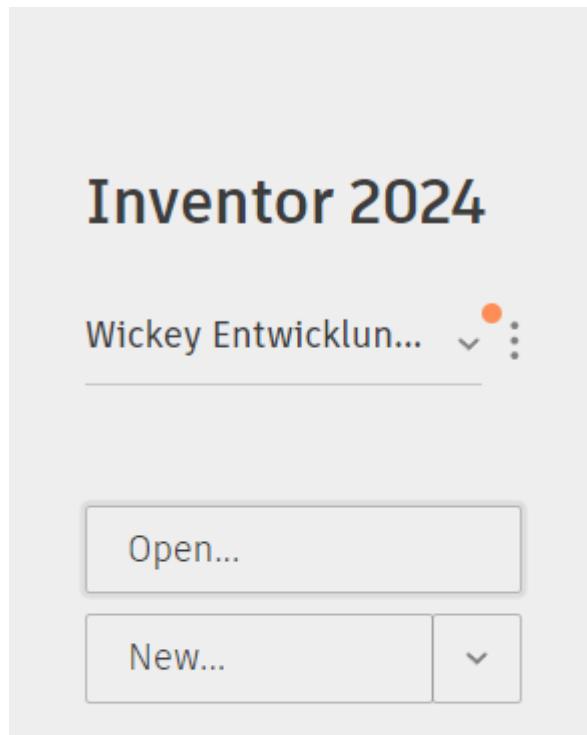
Autodesk Inventor Project

13 KB

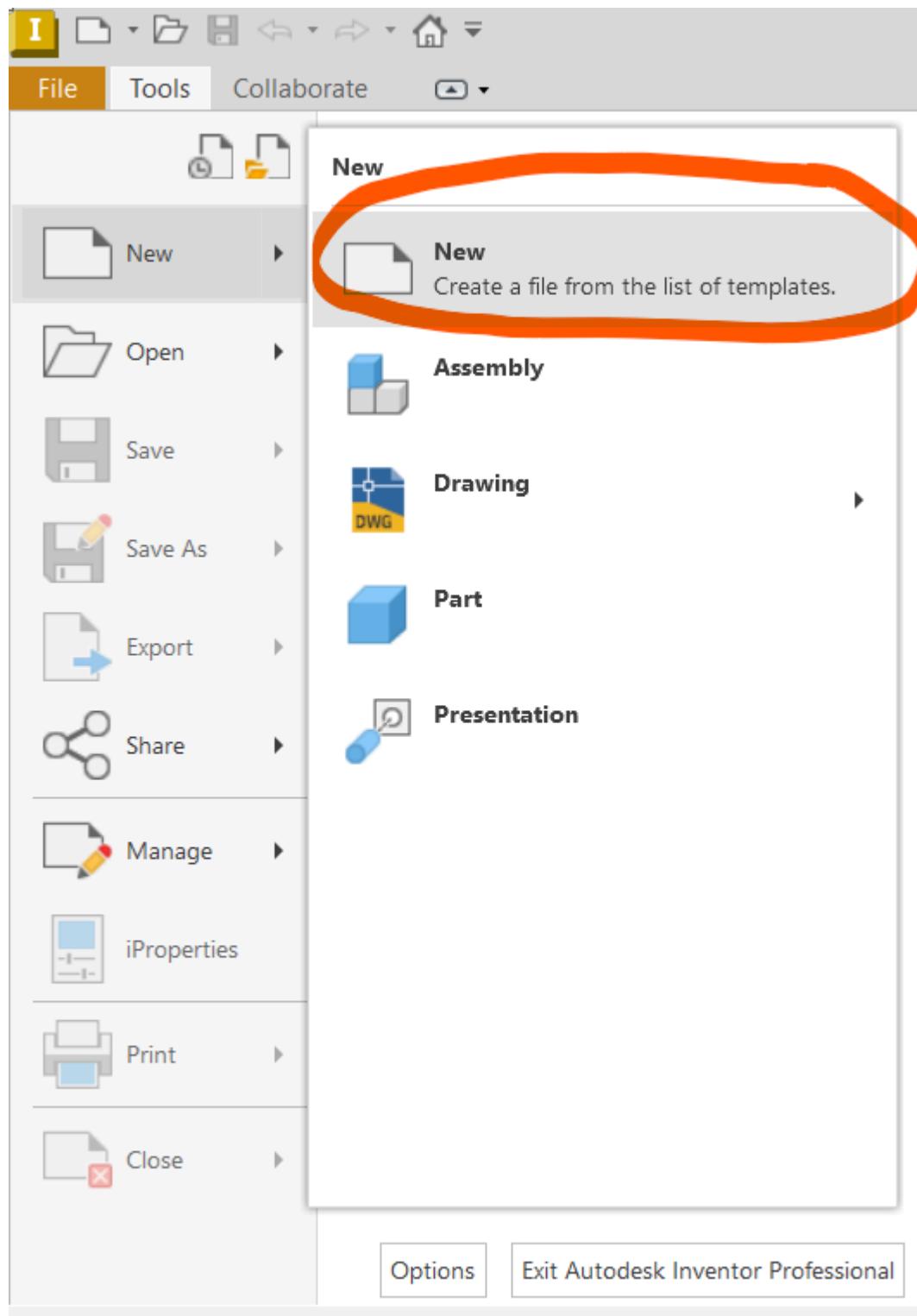
This will enable you, when you start Inventor and before you open anything, to choose the required settings. You find your running standard operation usually around the left corner in your window.



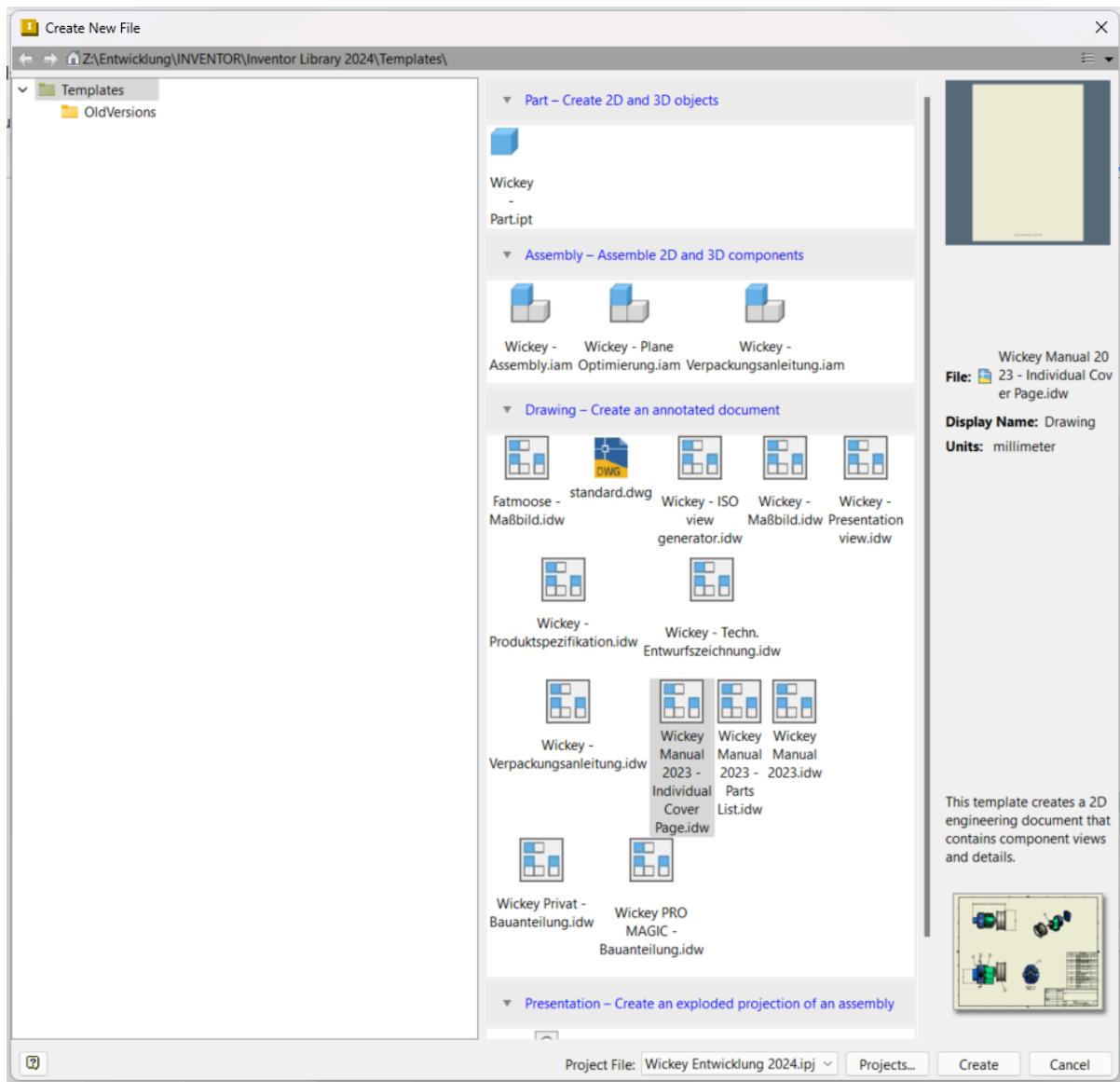
If it does not show up, press 'Open' and search for Wickey Entwicklung 2024 in our folder structure. Then it should show up in the end.



So as we hopefully established the same common ground now, you should find our templates for all the mentioned files pressing 'File' -> 'New'.



NEVER JUST PRESS NEW AS THIS WILL LEAD YOU TO LEAVE OUR COMMON GROUND!
YOU ALWAYS SHOULD WIND UP HERE:



You probably will be using the following templates: **Wickey Assembly.iam**, **Wickey - Plane Optimierung.iam**, **Wickey Manual 2023 - Individual Cover Page.idw**, **Wickey Manual 2023 - Parts List.idw**, **Wickey Manual 2023.idw**, **Wickey - Presentation.ipn** and maybe sometimes also **Wickey - Part.ckpt**.

So let's dive into the basic structure of our manuals so that you know, where we need to end up and will understand why we need to create what. I recommend having a look at as many manual-PDFs from our sides so that you can get a feeling of what is expected from you. Feel welcome to ask for Files!

Folder Structure

Folder Structure:

Name	Änderungsdatum
1 Products	03.07.2023 12:24
2 Modules	22.06.2023 09:22
3 Sub-Modules	19.12.2022 09:44
4 Parts and Pre-Assemblies	10.11.2022 09:28
5 Rendering and Steps	05.10.2022 08:31
6 Infomail	30.01.2023 17:08

Our sold whole products you find in the first folder called '**1 Products**'.

If you go one step further you see that we differ between '**Add Ons**', '**Play Structures**' and '**Swings**'.

Add Ons are quite new for us as well. This is for products that we sell separately and can be added to a remaining tower. Play Structures contain our towers. They are separated in our two brands '**Wickey**' and '**Fatmoose**'. Swings contain the Swing from Fatmoose, Wickey and the ones we use for both brands in a folder called '**General**'.

Add Ons	03.07.2023 15:46	Dateiordner
Play Structures	22.09.2022 11:34	Dateiordner
Swings	22.09.2022 11:36	Dateiordner
Info	22.09.2022 11:41	Textdokument 1 KB

Then we differentiate our platform heights **90 cm**, **120 cm** and **150 cm** or if it is a climbing frame.

Folder Structure:

Name	Änderungsdatum	Typ
90	10.10.2022 10:38	Dateiordner
120	19.01.2023 17:20	Dateiordner
150	26.06.2023 11:35	Dateiordner
Climbing Frame	28.10.2022 09:17	Dateiordner

Then we have the following **Modules** in the second folder called '**2 Modules**' which we use in our towers. They consist of them.

Dieser PC > Abteilung (Z:) > Entwicklung > INVENTOR > INVENTOR 2023 > 2 Modules			
	Name	Änderungsdatum	Typ
	1 Frame	22.06.2023 09:59	Dateiordner
	2 Bridge	22.09.2022 10:33	Dateiordner
	3 Floor	30.06.2023 15:27	Dateiordner
	4 Shop	20.06.2023 14:19	Dateiordner
	5 Climbing	25.07.2023 11:23	Dateiordner
	6 Railing	22.06.2023 14:23	Dateiordner
	7 Wall	20.06.2023 15:49	Dateiordner
	8 Ladder	23.06.2023 12:19	Dateiordner
	9 House	25.07.2023 13:55	Dateiordner
	10 Roof	23.06.2023 15:05	Dateiordner
	11 Swing Beam	27.10.2022 14:15	Dateiordner
	12 Swing Frame	22.09.2022 10:37	Dateiordner
	13 Slide	04.10.2022 07:58	Dateiordner
	14 Extra	25.07.2023 11:24	Dateiordner
	15 Decoration	03.07.2023 14:20	Dateiordner
	16 Accessoires	10.07.2023 11:47	Dateiordner
	17 Anchoring	22.06.2023 09:27	Dateiordner

The third folder is for Sub Modules. Sub Modules are assemblies that do not have an own manual as they would disturb the overall built up order. However it saves time to have an already built up assembly that can simply be added to a module. Submodules are flower boxes, doors, tables or window-shutters for example. The idea is that you can generate the manual steps for them in a separate idw.-file that you can copy into your main idw.-file.

In the fourth folder we intend to put in our new library of parts one time and right now you find prepared wood with screws and mark and predrill-symbols.

The other folders are for our rendering department or for ourselves as we send out Infomails once a tower is done to inform the company .

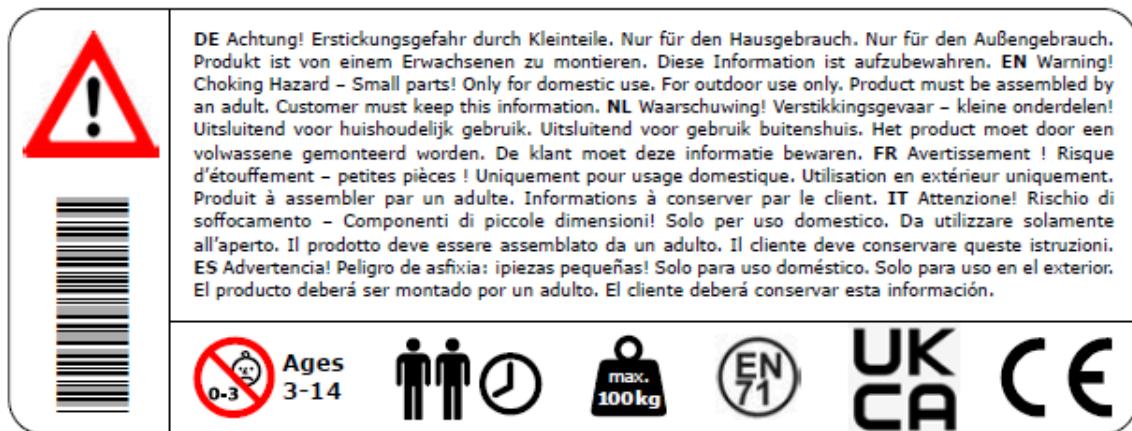
Manualstructure

Cover

Every manual ends up with a cover page probably done by us, but for the overview I want to add this here too.



Smart DockHouse 1/2



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V101

Important is that the page needs a barcode.
We generate this with a to our Indesign-file linked csv-file.

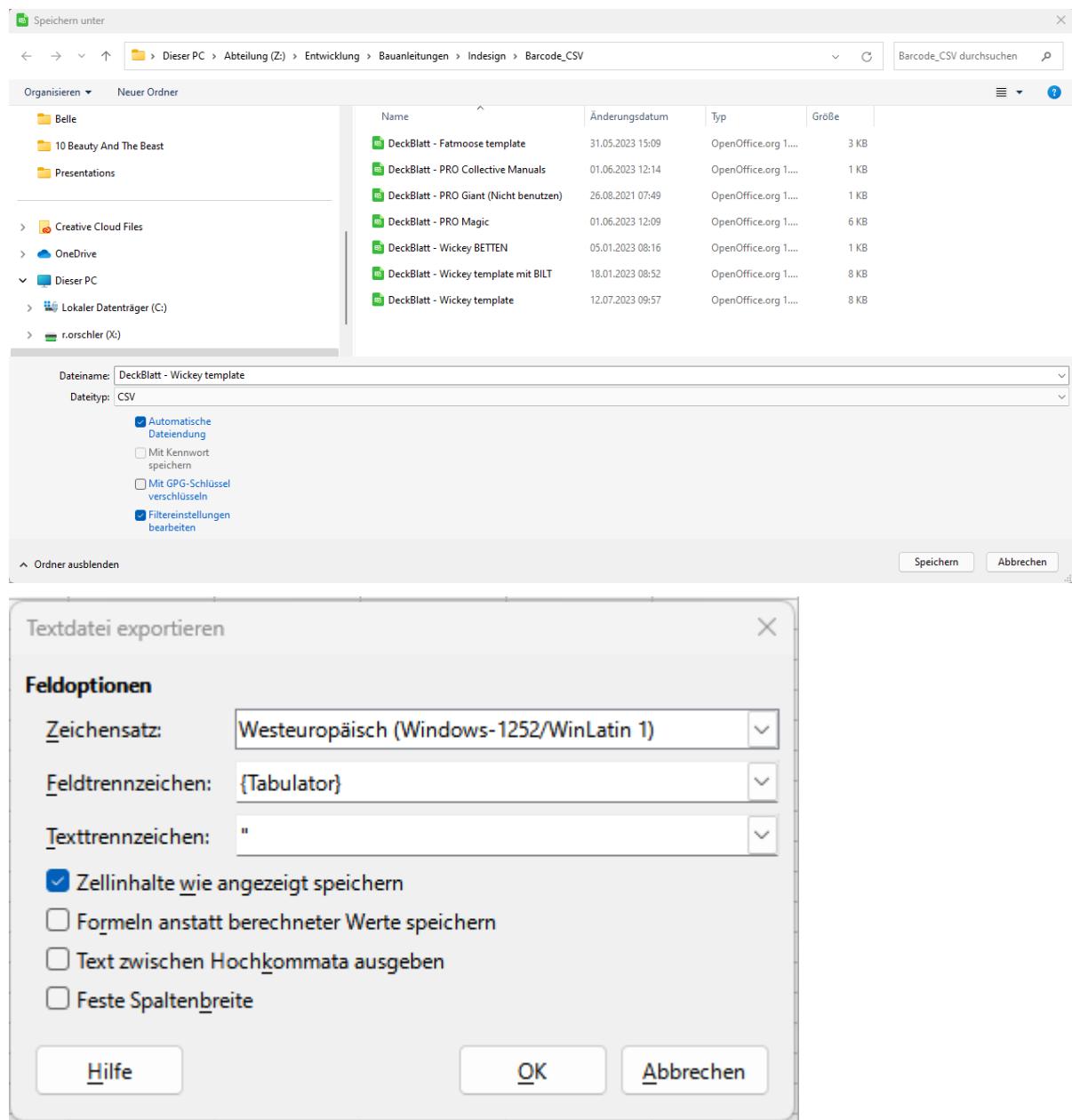
The screenshot shows a Windows File Explorer window with the following path: Dieser PC > Abteilung (Z:) > Entwicklung > Bauanleitungen > InDesign > Barcode_CSV. The list contains seven files, all of which are OpenOffice.org documents (Type: OpenOffice.org 1....) and have a size of either 3 KB or 1 KB. The files are:

Name	Änderungsdatum	Typ	Größe
DeckBlatt - Fatmoose template	31.05.2023 15:09	OpenOffice.org 1....	3 KB
DeckBlatt - PRO Collective Manuals	01.06.2023 12:14	OpenOffice.org 1....	1 KB
DeckBlatt - PRO Giant (Nicht benutzen)	26.08.2021 07:49	OpenOffice.org 1....	1 KB
DeckBlatt - PRO Magic	01.06.2023 12:09	OpenOffice.org 1....	6 KB
DeckBlatt - Wickey BETTEN	05.01.2023 08:16	OpenOffice.org 1....	1 KB
DeckBlatt - Wickey template mit BILT	18.01.2023 08:52	OpenOffice.org 1....	8 KB
DeckBlatt - Wickey template	12.07.2023 09:57	OpenOffice.org 1....	8 KB

Below you can see what it consists of: the name of the tower, the barcode framed with '*', der versionnumber and the year plus month. All of this data is added to the indesign-file.

A	B	C	D
name	barcode	version	datum
GangsterFlyer	*456308*	V102	202211
CottageFlyer	*456317*	V101	202208
Smart Travel	*456200*	V108	202211
Smart Plaza Smart Seaside	*456182*	V112	202301
Smart Journey	*456312*	V102	202211
Smart Seaway	*456310*	V102	202207
Smart Seastar	*456314*	V103	202211
Smart Guard	*456282*	V101	202211
Smart Stage	*456283*	V102	202301
Smart Shell	*456260*	V103	202305
Smart Surf	*456261*	V101	202211
WatchFlyer	*456281*	V101	202211
Smart Pier	*456290*	V101	202211
Smart Bounty	*456288*	V102	202211
Smart Life	*456289*	V101	202211
JoyFlyer	*456285*	V102	202305
TideFlyer	*456284*	V102	202211
Smart Shore	*456286*	V102	202211
Smart Wave	*456287*	V102	202211
AirFlyer	*456071*	V101	202101
ArcticFlyer	*456072*	V112	202211
CannonFlyer	*456075*	V102	202211
DragonFlyer	*456082*	V110	202305
FastFlyer	*456083*	V101	202101
FreeFlyer	*456086*	V118	202301
FreshFlyer	*456087*	V110	202111
FunFlyer	*456090*	V105	202101
FunkyFlyer	*456091*	V102	202211
GhostFlyer	*456111*	V106	202301
KnightFlyer	*456117*	V108	202211
Monkey Island	*456123*	V111	202211
MultiFlyer	*456124*	V126	202211
Neverland 1/2	*456125*	V110	202211
Neverland 2/2	*456099*	V110	202211

If you ever fill in something and want to save the file, you have to make sure to save it in the correct way.

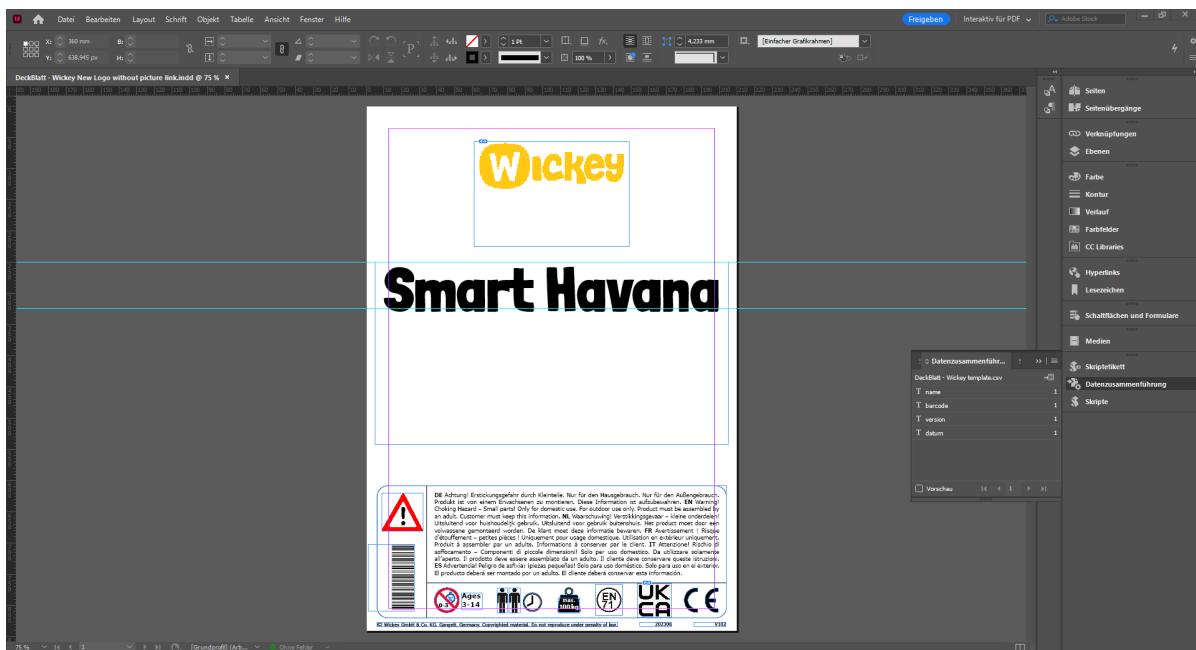


This is the InDesign-File for the Covers:

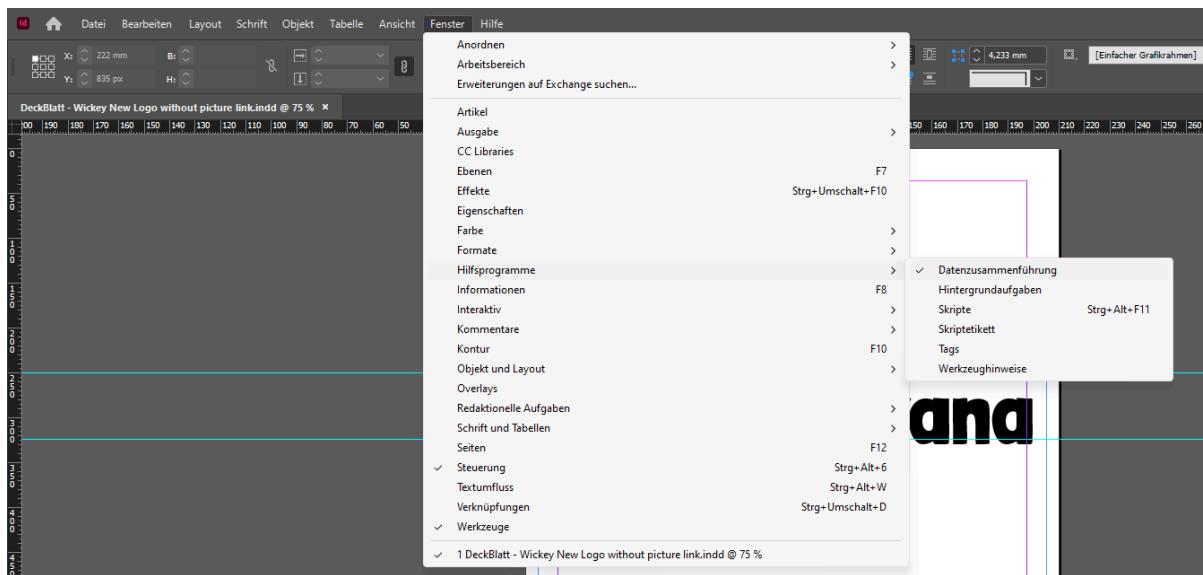
Diese PC > Abteilung (Z) > Entwicklung > Bauanleitungen > InDesign

Name	Änderungsdatum	Typ	Größe
1-DECKBLÄTTER Fatmouse	16.08.2016 09:38	Adobe Illustrator ...	14 KB
1-DECKBLÄTTER Fatmouse	16.08.2016 10:04	Adobe Acrobat-D...	7 KB
AlleSprache_Dein_Abenteuer_ist_da_auspacken	17.01.2018 17:14	Microsoft Excel-A...	11 KB
AssemblewithConfidenceBanner_Color_WickeyMultiFlyer	20.07.2021 09:08	Adobe Acrobat-D...	6.788 KB
DeckBlatt - GIANT	26.08.2021 08:30	InDesign Document	1.428 KB
DeckBlatt - Fatmouse template	12.07.2021 11:16	InDesign Document	6.380 KB
DeckBlatt - GIANT Sicherheit	17.07.2019 15:36	InDesign Document	3.780 KB
DeckBlatt - neutral template	23.06.2022 10:53	InDesign Document	6.784 KB
DeckBlatt - PRO Magic Wickey Collective Manual New Logo	18.01.2023 12:03	InDesign Document	1.008 KB
DeckBlatt - PRO Magic Wickey Collective Manual Wickey Fit	01.06.2023 12:33	InDesign Document	880 KB
DeckBlatt - PRO Magic	31.05.2021 09:41	InDesign Document	776 KB
DeckBlatt - Wickey BETTEN + UKCA	05.01.2023 09:54	InDesign Document	6.824 KB
DeckBlatt - Wickey New Logo without picture link	02.06.2023 14:41	InDesign Document	6.984 KB

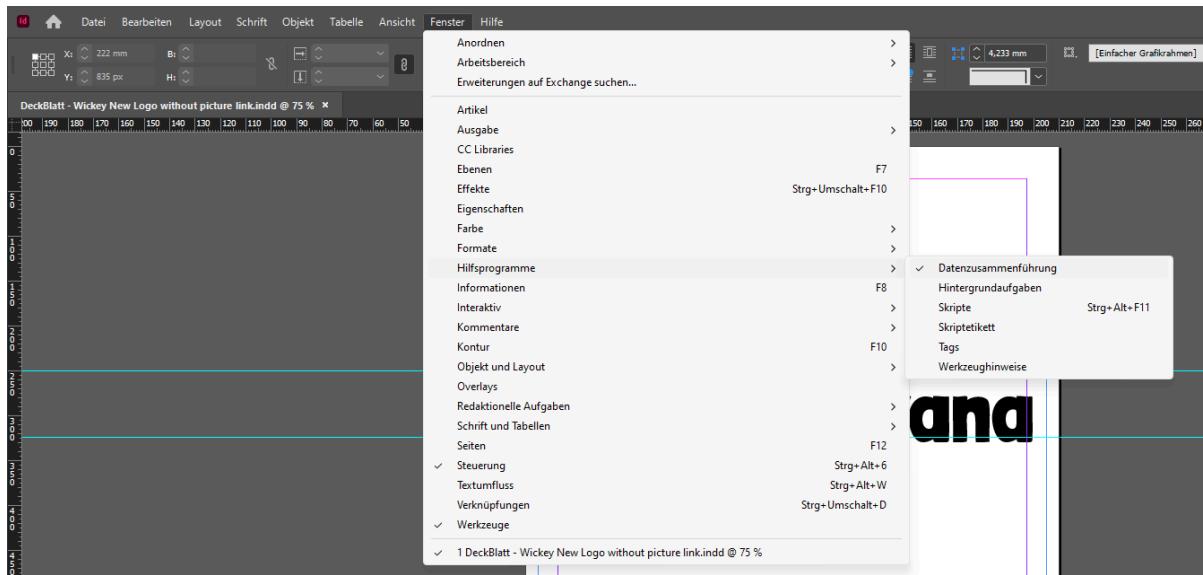
When you open it you need to make sure to use 'Data Merge' or 'Datenzusammenführung' (in German as you see here).



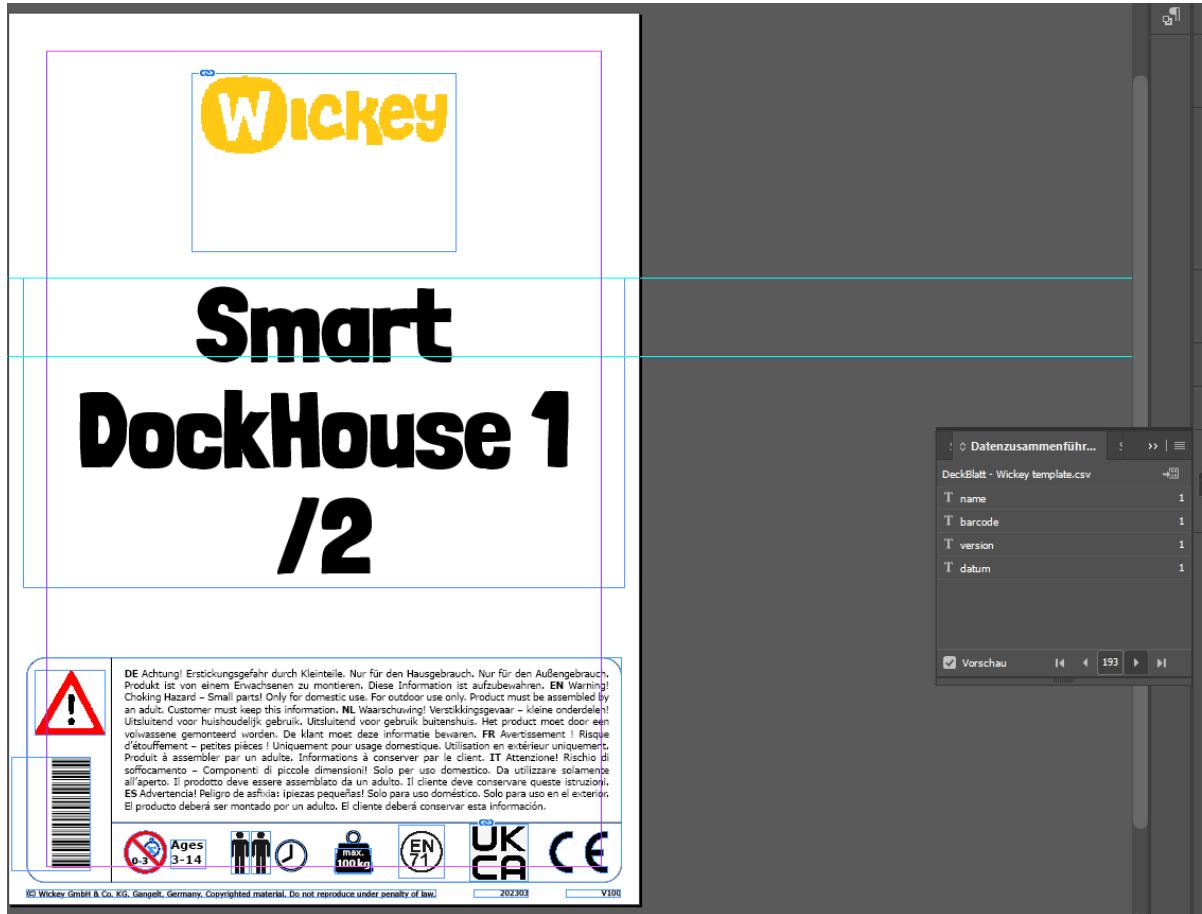
This is how you can find it:



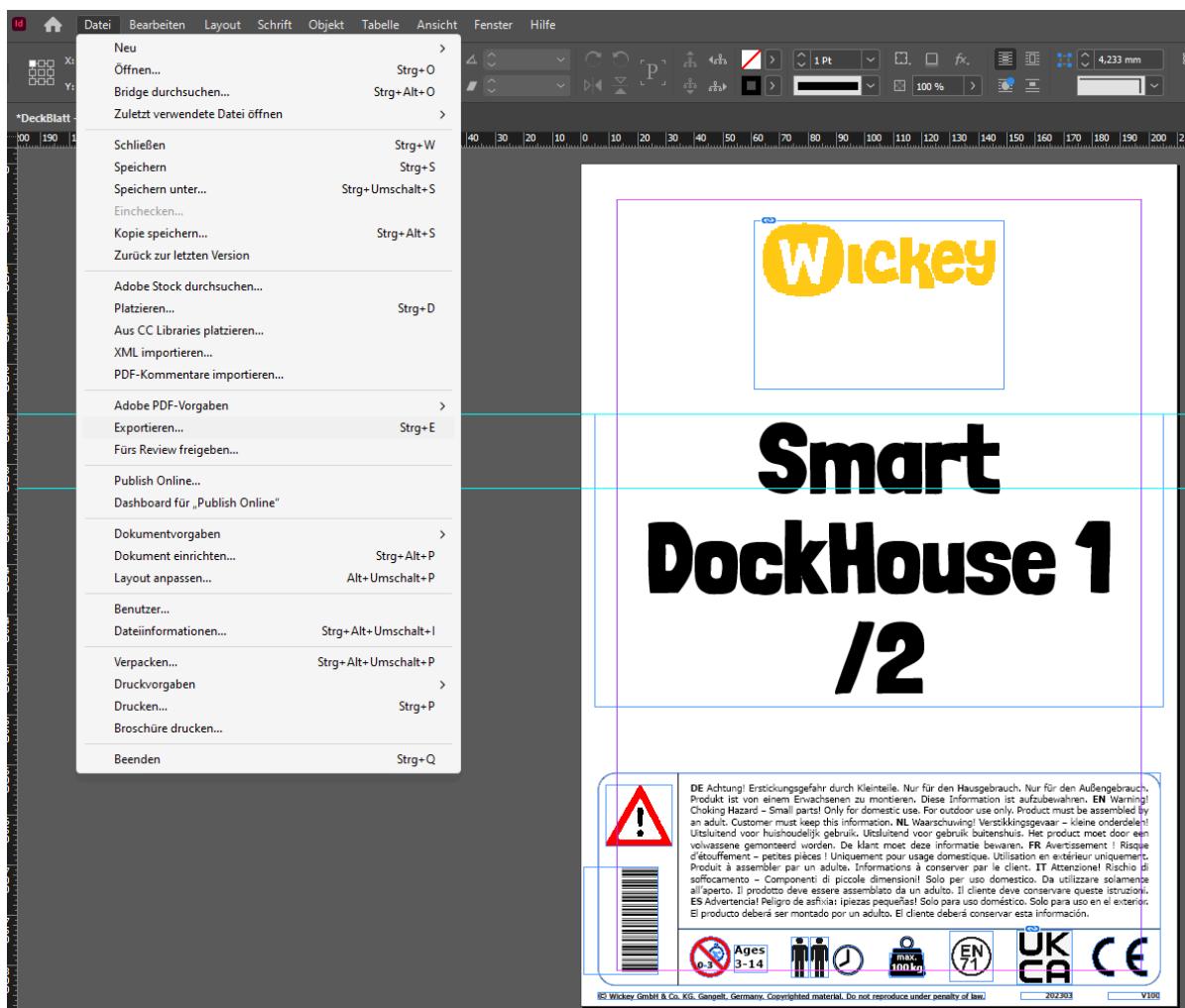
Then check it:



Then you can press the arrow here to find the toolname you need:



Then export it as a PDF:



Security Pages

After this you will find security pages:

**DE**

Algemeine Sicherheitshinweise

Wir gratulieren Ihnen zum Kauf Ihres Wickey-Spielsystems. Die erworbenen Produkte sind jederzeit erweiterbar, so ist jahrelange Spielfreude garantiert. Unsere Systeme erfüllen die aktuellen Sicherheitsanforderungen: die verwendeten Materialien entsprechen den Europäischen Normen laut EN 71 Teil 1 und 8 für den privaten Gebrauch. Alle Hölzer sind kesseldruckimprägniert und so vor Witterungseinflüssen geschützt. Diese Spielgeräte werden mit größter Sorgfalt überprüft, um die nötige Sicherheit zu gewährleisten.

- ▶ Bitte verwenden Sie nur originale Wickey-Bauteile bzw. Anbauteile!
- ▶ Nur für den Hausegebrauch!
- ▶ Geeignet für Kinder zwischen 3 und 14 Jahren.
- ▶ Maximale Traglast: 100 kg.
- ▶ Nur für den Außengebrauch!

Sicherheitshinweise für den Aufbau:

- ▶ Das Produkt darf nur von Erwachsenen aufgebaut werden.
- ▶ Sorgen Sie dafür, dass während der Montage des Spielgerätes keine Kinder anwesend sind.
- ▶ Die Spielstatte darf erst nach vollständiger Überprüfung aller Anbauteile genutzt werden.
- ▶ Lesen Sie die Montageanleitung aufmerksam durch undheben Sie diese Anleitung für spätere Anpassungen oder Erweiterungen auf.
- ▶ Tragen Sie bei der Montage angemessene Schutzkleidung, wie Schutzbille und Handschuhe.
- ▶ Treten Sie nicht auf die Plattform, solange das Spielgerät nicht vollständig aufgebaut ist.
- ▶ Um die Stabilität des Spielturms zu gewährleisten, sollten Sie unbedingt Grundanker verwenden und diese in Beton fixieren.
- ▶ Achten Sie darauf, dass die Grundanker komplett im Boden

verschwinden, damit diese keine Stolperfälle darstellen.

leider noch nicht benutzen.

Sicherheitsabstände

- ▶ Zwischen Schaukelsitz und Boden sollte ein Abstand von mindestens 35 cm eingehalten werden.
- ▶ Der Abstand zu den einzelnen Schaukelsitzen und anderen schaukelnden Produkten sollte mindestens 45 cm betragen.
- ▶ Der Abstand zum Gerüst sollte mindestens 30 cm betragen.

Umgebung und Untergrund:

- ▶ Stellen Sie sicher, dass der Untergrund in Bezug auf die Falldämpfung nicht zu hart ist. Lockern Sie diesen, wenn nötig auf, oder statten Sie den Boden mit Fallschutzmatten aus, die ebenfalls bei uns im Shop erhältlich sind.
- ▶ Untauglich sind alle harten Böden wie z.B. Betonflächen, Asphalt etc., da in diesem Falle ein großes Verletzungsrisiko für Ihre Kinder besteht.
- ▶ Prüfen Sie auch die unmittelbare Umgebung des Gerätes (ein Aktionsradius von mindestens zwei Metern) auf Gefahren wie Äste, Wascheleinen oder andere Aufbauten und Hindernisse.

Nicht sachgemäße Nutzung:

Nicht sachgemäße Nutzung oder die Anbringung von unzweckmäßigen oder fremden Materialien wie z.B. schwere Ketten, Stangen oder Seile entbindet den Hersteller von seiner Verantwortung. Das gleiche gilt für eine falsche Montage. Weichen Sie nicht von der Montageanleitung ab und verändern Sie nicht das Design oder die Ausführung.

Aufsicht:

Beachten Sie, dass die Aufsicht von Erwachsenen verpflichtend und unerlässlich ist, während die Kinder auf diesen Geräten spielen. Kinder unter 3 Jahren dürfen die Spielgeräte

Wartung:

Kontrollieren Sie zu Beginn jeder Saison sowie alle zwei Wochen während der Gebrauchssaison, die Schrauben und Haken auf ihre Festigkeit. Beachten Sie jedoch, dass zu fest angezogene Schrauben Risse im Holz verursachen können. Überprüfen Sie ebenfalls Befestigungsmaterial, Beschläge und Schaukelhaken auf eventuelle Verschleißerscheinungen oder Rost. Prüfen Sie ebenfalls die Grundanker und tauschen Sie diese bei Mängeln aus. Zudem sind alle beweglichen Teile aus Metall regelmäßig zu ölen. Überprüfen Sie ebenfalls alle Schraubenabdeckungen und scharfe Kanten und tauschen Sie diese bei Bedarf aus bzw. schleifen Sie diese ab. Kontrollieren Sie die Holzteile auf Splitter und Risse. Durch die Witterung können diese naturgemäß bei der Trocknung entstehen. Entfernen Sie gegebenenfalls die hierbei entstandenen Splitter. Schaukelsitze, Ketten, Seile und anderes Zubehör sind auf Anzeichen von Verschleiß zu Prüfen. Defekte Teile sind entsprechend den Anweisungen des Herstellers auszutauschen. Bei fehlender Überprüfung kann das Aktivitätsspielzeug sich überschlagen oder anderweitig zur Gefahr werden.

Pflege des Holzes

Da alle Holzteile vorbehandelt (kesseldruckimprägniert) sind, bedarf es keiner weiteren Behandlung gegen Witterungseinflüsse oder Fäulnis. Sie dürfen das Holz auf keinen Fall lackieren oder eine Farbe verwenden, die eine rutschige/glatte Oberfläche zur Folge haben könnte.

Pflege Kunststoff

Für die Reinigung der Kunststoffteile empfehlen wir Leitungswasser mit Spülmittel. Sie sollten die Kunststoffteile im Winter im Haus



oder in der Garage aufbewahren, um den natürlichen Alterungsprozess der Materialien zu verlangsamen.

Wickey-Spielgeräte sind ausschließlich für die private Nutzung vorgesehen, da bei öffentlichen Spielgeräten weitere Sicherheitsauflagen erforderlich sind. Ersatzteile oder Verschleißteile können Sie jederzeit über unseren Shop www.wickey.de bestellen.

Wir wünschen Ihnen und Ihren Kindern viel Vergnügen mit unseren Spielgeräten. Bei Fragen stehen wir Ihnen selbstverständlich gerne zur Verfügung.

Ihr Wickey-Team

EN

General safety information

Congratulations on the purchase of your Wickey climbing frame. The purchased product is expandable at any time, so years of fun are guaranteed. Our systems meet the latest safety requirements; the used materials comply with the European standards, according to EN 71 parts 1 and 8 for private use. All woods are pressure impregnated and thus protected from the elements. Our playground equipment is examined with the utmost care to ensure the necessary safety.

- ▶ Please use only original Wickey components and add-on parts.
- ▶ For domestic use only!
- ▶ Suitable for children between 3 and 14 years old.
- ▶ Maximum load capacity: 100 kg.
- ▶ For outdoor use only!

Safety instructions for assembly:

- ▶ The product may only be assembled by adults.
- ▶ Make sure that no children are present during the installation of

the play equipment.

- ▶ The climbing frame may only be used after the complete inspection of all attachments.
- ▶ Read the installation instructions carefully and keep these instructions for future adjustments or extensions.
- ▶ Wear suitable protective clothing, such as safety glasses, and gloves, during the assembly.
- ▶ Do not step onto the platform until the playground equipment is completely assembled.
- ▶ In order to ensure the stability of the climbing frame, you should use ground anchors and fix them in concrete.
- ▶ Make sure that the ground anchors disappear into the ground completely, to prevent tripping hazards.

Safety distances

- ▶ The distance between the swing seat and the floor should be at least 35 cm.
- ▶ The distance between the individual swing seats and other swinging products should be at least 45 cm.
- ▶ The distance to the frame should be at least 30 cm.

Surroundings and underground

- ▶ Make sure that the surface is not too hard in terms of shock absorption. Loosen it, if necessary, or equip the ground with fall protection mats, which are also available in our shop.
- ▶ All hard floors such as concrete surfaces, asphalt, etc. are unsuitable as there is a high risk of injury for your children.
- ▶ Also check the immediate surroundings of the climbing frame (a radius of at least 2 meters) for hazards such as branches, clothes lines or other obstacles.

Inappropriate use

Improper use or the attachment of inappropriate or foreign materials such as heavy chains, poles or ropes release the manufacturer from his responsibility. The same applies to incorrect assembly. Do not deviate from the assembly instructions and do not change the design and implementation.

Supervision

Keep in mind that adult supervision is mandatory and essential while children play on these devices. Children under 3 years of age are not allowed to use the playground equipment.

Maintenance

At the beginning of each season and every two weeks during the season, check the strength of the screws and hooks. Note, however, that overtightened screws can cause cracks in the wood. Also check the fastening material, fittings and swing hooks for any signs of wear or rust. Also check the anchors and replace them in case of defects. In addition, all moving metal parts must be lubricated on a regular basis. Also check all the screw covers and sharp edges and replace them or grind them off if necessary. Check the wooden parts for splinters and cracks, which can naturally occur during the drying process. Remove any splinters that may have developed during this process. Swing seats, chains, ropes and other accessories must be checked for signs of wear. Defective parts must be replaced in accordance with the manufacturer's instructions. Lack of inspection can cause the climbing frame to overturn or can have other dangerous effects.

Wood treatment

Since all wooden parts are pre-treated (pressure impregnated) there is no need for further treatment.



against weathering or decay. Under no circumstances should you paint the wood or use a paint that could result in a slippery/smooth surface.

Maintenance of plastics

For cleaning the plastic parts, we recommend tap water with detergent. In wintertime, you should store the plastic parts in the house or garage to slow down the natural aging process of the materials.

Wickey's play equipment is intended for private use only, as additional safety requirements are required for public play equipment. Spare parts can be ordered via our webshop: www.wickey.com

We wish you and your children a lot of fun with your Wickey product. If you have any questions, please do not hesitate to contact us.

Your Wickey Team

NL

Algemene veiligheidsvoorschriften

Van harte gefeliciteerd met de koop van een Wickey speelsysteem. De gekochte producten zijn ten allen tijde uit te breiden, zo is jarenlange speelvreugde gegarandeerd. Onze systemen voldoen aan de actuele veiligheidsvoorschriften en de gebruikte materialen voldoen aan de Europese normen EN 71 deel 1 en deel 8 voor privégebruik. Het hout is geimpregneerd en zo voor weersinvloeden veiliggesteld. Deze speeltuinstellen zijn met grote zorg getest, om de nodige veiligheid te garanderen.

- ▶ Gebruik enkel originele Wickey bouwonderdelen en uitbreidingsonderdelen.
- ▶ Alleen voor privégebruik.
- ▶ Geschikt voor kinderen tussen 3 en 14 jaar.

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- ▶ Maximale draaglast: 100 kg.
- ▶ Alleen voor buitengebruik.

Veiligheidsvoorschriften bij de opbouw

- ▶ Bouw het product op enkel met volwassenen.
- ▶ Zorg ervoor dat gedurende het opbouwen van het speeltoestel geen kinderen aanwezig zijn.
- ▶ Gebruik het speelterrein pas na volledige montage van het speeltoestel en controle van alle onderdelen en verbindingen.
- ▶ Lees de montagehandleiding zorgvuldig door en bewaar deze handleiding voor latere aanpassingen of uitbreidingen.
- ▶ Draag bij de montage passende beschermende kleding, evenals veiligheidsbril en handschoenen.
- ▶ Betreed het platform niet, zolang het speeltoestel niet compleet opgebouwd is.
- ▶ Om de stabiliteit van de speeltoren te garanderen, moet u beslist verankeringen toepassen en deze in beton gieten.
- ▶ Let u er op dat de ankers correct bevestigd worden, zodat deze geen struikelplek kunnen zijn.

Veilige afstanden

- ▶ De schommel moet minimaal 35 cm afstand tot de ondergrond hebben.
- ▶ De afstand tot de enkele schommel en de andere schommelende onderdelen moet minimaal 45 cm bedragen.
- ▶ De afstand tot aan het toestel moet minimaal 30 cm bedragen.

Omgeving en ondergrond

- ▶ Verzeker u ervan dat de ondergrond in verband met het dempen van een val niet te hard is. Zorg ervoor dat de ondergrond schokabsorberend is. Gebruik hiervoor bijvoorbeeld rubberen veiligheidstegels, deze zijn tevens in onze shop verkrijgbaar.
- ▶ Gebruik beslist geen harde

ondergrond zoals beton, asfalt etc. Hierdoor kunnen uw kinderen ernstige verwondingen oplopen.

- ▶ Controleer de directe omgeving van het toestel ook op gevaren zoals, takken, waslijnen of rondslingerende voorwerpen.

Foutief gebruik

Foutief gebruik of het aanbrengen van niet geschikte of ongebruikelijke materialen zoals zware kettingen, stangen of touwen ontslaat de producent van elke verantwoordelijkheid. Hetzelfde geldt voor foutieve montage. Wijk niet af van de montagehandleiding en verander niets aan het design of de uitvoering.

Toezicht

Wees u ervan bewust dat toezicht van volwassenen verplicht en noodzakelijk is, wanneer de kinderen op deze toestellen spelen. Kinderen onder 3 jaar mogen deze speeltuinstellen helaas nog niet gebruiken.

Inspectie

Controleer elke twee weken of de schroeven en haken nog vast zitten. Houd er rekening mee dat te vastgedraaide schroeven scheuren in het hout kunnen veroorzaken. Controleer eveneens het bevestigingsmateriaal, beslag en schommelhaken op eventueel verslijf of roest, evenals de bevestiging van de verankering. Vervang de onderdelen bij gebreken. Controleer de houten onderdelen op splinters en scheuren, die door weersomstandigheden van nature kunnen ontstaan bij het drogen. Verwijder deze indien aanwezig.

Onderhoud van het hout

Elk speeltoestel is gemaakt van geimpregneerd hout en is op die manier voldoende beschermd tegen weer invloeden en rotting. U mag het hout in geen geval voorzien van lak.

Version 101

(all pages you will find in our general manuals)

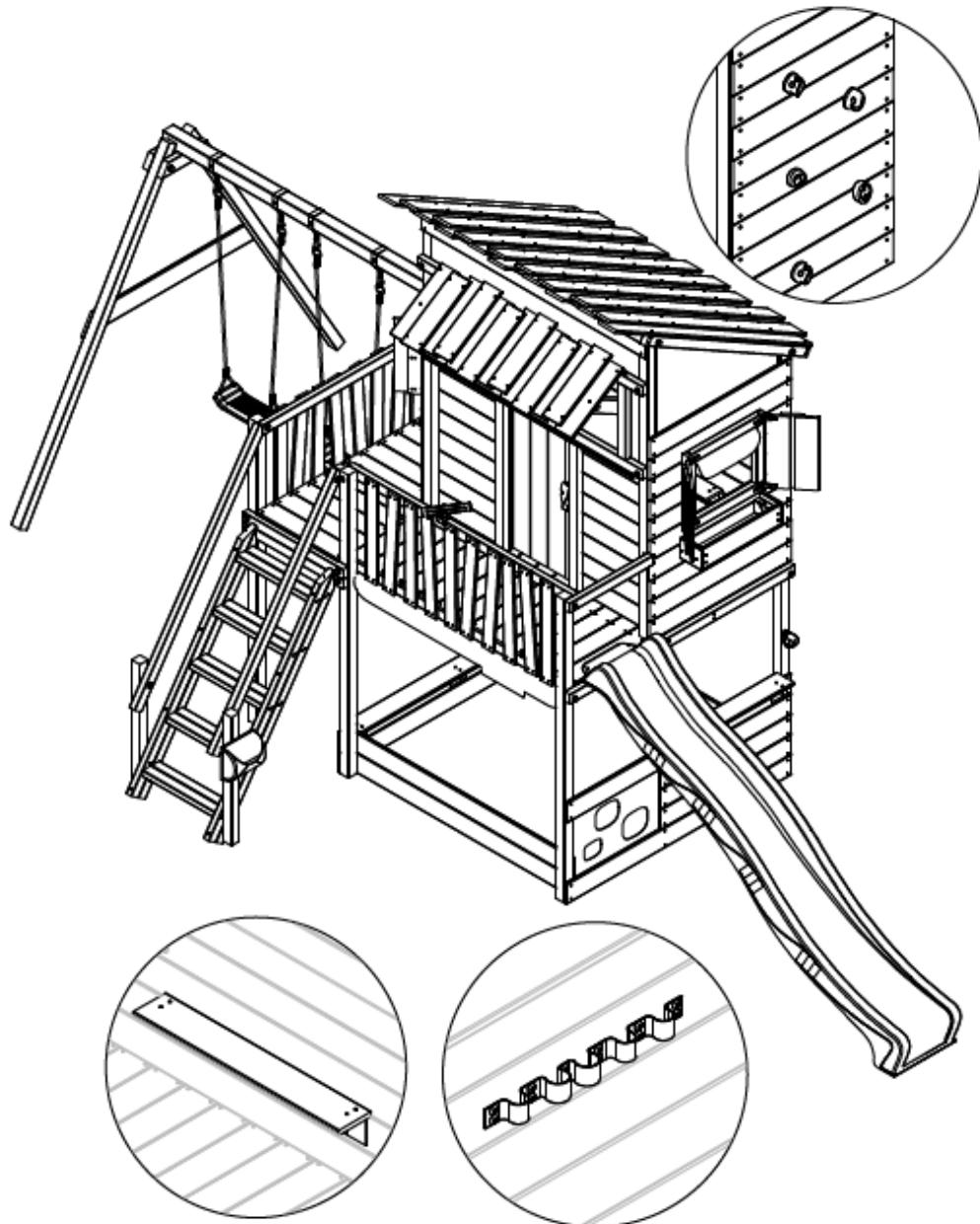
Parts List

This is the first page of the document, I will refer to it as a '**parts list**'. However this document is not just a parts list. It represents a total view of the whole built up, the necessary tools, all used parts (nearly at least), necessary steps about rounding edges and sorting profiles beforehand, a **canvas-** and **belt distribution**. Here on this page as you see it, it is all about showing the whole tower in the view that shows the most. In this case it was a complex tower and not everything was visible. This is why you find views showing other features in the bubbles.

Starting Overview Page



Smart DockHouse



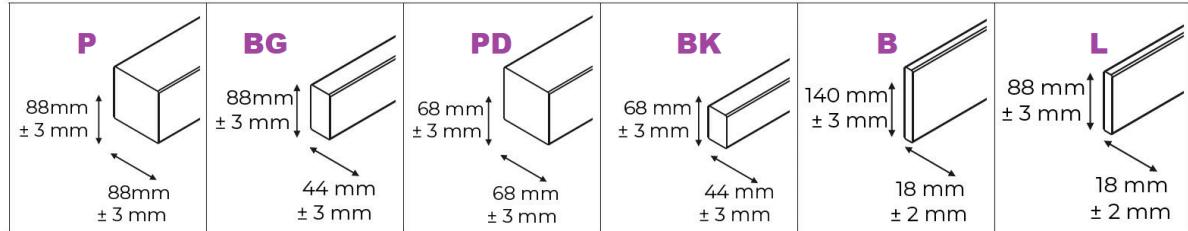
Tools Used

The second page shows the **tools** which are explicitly used for the individual tower. You can choose from different options or create a whole own combination for this. Not every tower has tarp for example. So not always scissors are needed. Or not all towers are that high and need a ladder.

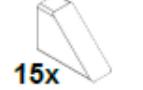
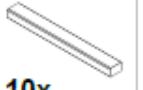
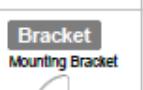
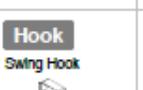
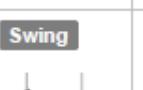
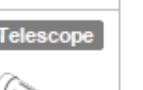


 PZ2	 10 / 13 / 17 mm			
 3 / 6 / 10 / 12 mm	 8 mm			

Here you will see below what the parts list looks like as you would recognize it as '**parts list**'. Therefore we established a certain order to sort the included parts. As you might see, it is sorted according to profil-types and the second indicator is length. So probably upfront this is the best spot to introduce you to our profiles:



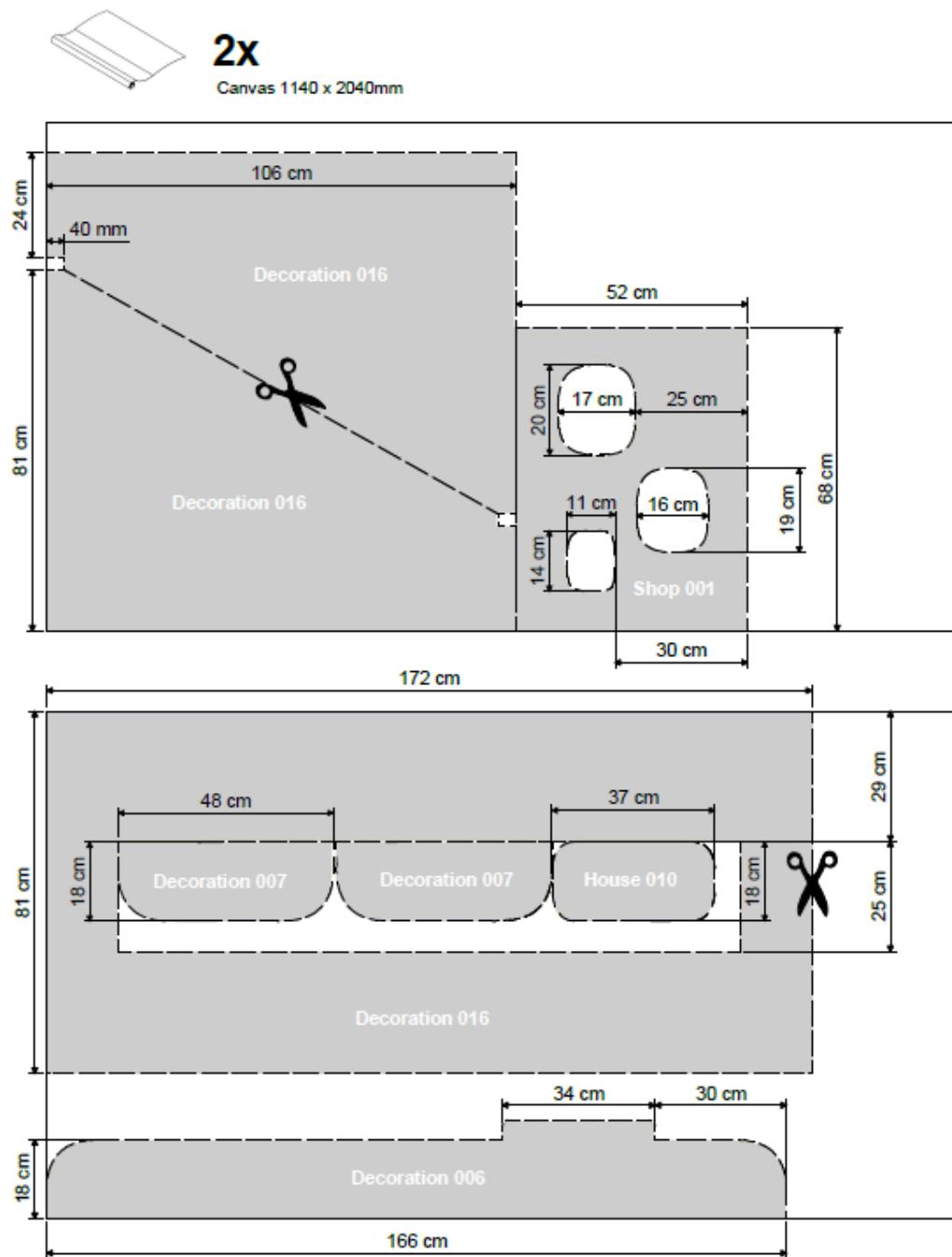
So the usual order would be starting with the biggest profile **P** followed by **PD**, **BG**, **BK**, **B** and **L**. Place all the same profiles next to each other sorted from the longest to the shortest. We got some special profiles called **SK** and **OB**. Place them after you mentioned the B-profiles as they basically are B-profiles but sawn at an angle. After the profiles, you can start with the screws and similar to the profiles you sort them by diameter and length. So usually you would start with the carriage bolts with a diameter of **M12/M10/M8/M6** but also sorting the counteracting **nut** in the order then too according to the diameter. After the screws the plastic parts come. So you should name the amounts of **plastic caps** and **plastic washers**. Then miscellaneous stuff such as **brackets** and **hinges** follow and after that start with all the **accessories**. The next point is **Canvas**, **Belts** and **Stickers**. And if the tower has a **swing beam**, always pack a **drill** as the customer needs it, to pre-drill it for mounting.

P240 2400x68x68mm  1x	PD240 2400x68x68mm  2x	PD210 2100x68x68mm  8x	PD150 1468x68x68mm  1x	PD89 890x68x68mm  4x	BG41 409x68x44mm  2x	BG32 322x68x44mm  2x
BG12 120x68x44mm  15x	BK190 1900x68x44mm  2x	BK180 1800x68x44mm  13x	BK171 1700x68x44mm  4x	BK148 1480x68x44mm  2x	BK131 1310x68x44mm  3x	BK80 800x68x44mm  4x
BK78 785x68x44mm  1x	BK62 620x68x44mm  4x	BK57 576x68x44mm  10x	BK51 510x68x44mm  2x	BK40 400x68x44mm  4x	BK17 173x68x44mm  1x	B180 1800x140x18mm  37x
B166 1660x140x18mm  15x	B145 1450x140x18mm  1x	B113 1135x140x18mm  18x	B105 1050x140x18mm  3x	B91 910x140x18mm  1x	B87 875x140x18mm  1x	B80 800x140x18mm  10x
B66 660x140x18mm  21x	B62 620x140x18mm  12x	B50 500x140x18mm  27x	B30 300x140x18mm  12x	B17 170x140x18mm  4x	L110 1100x68x18mm  1x	L70 700x68x18mm  20x
M10x220 M10x220mm  1x	M10 Nut M10  1x	10x100 10x100mm  3x	10x80 10x80mm  34x	7x80 7x80mm  4x	6x90 6x90mm  80x	5x80 5x80mm  26x
5x35 5x35mm  2x	5x20 5x20mm  32x	4,5x50 4,5x50mm  713x	4x30 4x30mm  158x	4x16 4x16mm  172x	Washer Yellow Washer  159x	Cap  42x
Hinge  10x	Bracket Mounting Bracket  3x	Hook Swing Hook  4x	Swing  2x	Letterbox  1x	Slide 300  1x	Telescope  1x
Stones Climbing Stones & Attachment  5x	Canvas 1140x2040mm  2x	Belt 260 250cm Belt  1x	Sticker Stickensheet White  2x	Sticker ABC Stickersheet  1x	Sticker W  1x	Wood Drill Wood Drill 10mm  1x

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Canvas Distribution

After the parts list the **Canvas Distribution** is shown, telling the customer how to cut the delivered canvas and referring to the module where each piece of canvas is used. We have an extra template to create this - called 'Wickey - Plane Optimierung'. Here you will create an extra assembly and add the flattened tarps or we might create that one for you and you just have to implement it in some spot similar to this one, working on your own parts list. Usually we got **two canvas sizes 204x114 cm and 140x89 cm.**

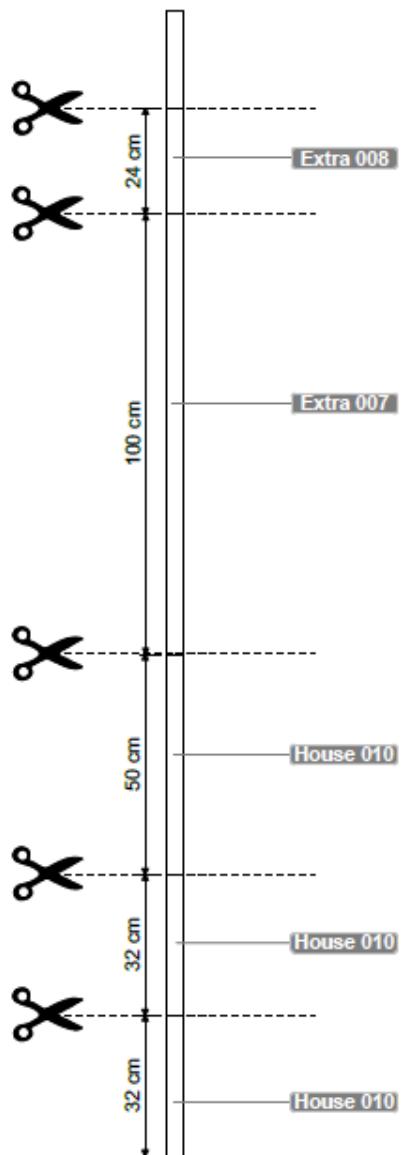


Belt Distribution

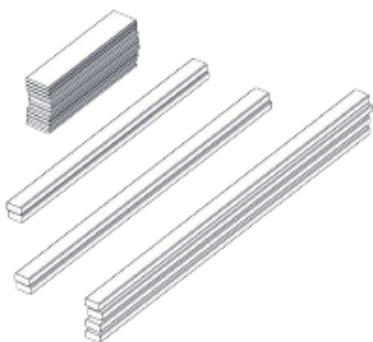
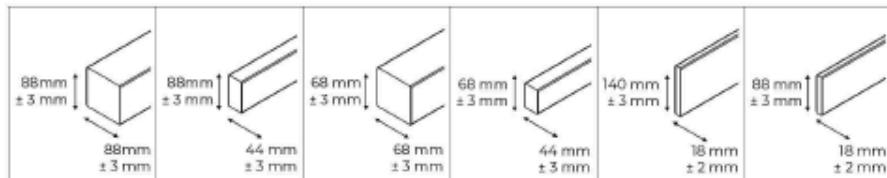
If your construction has a belt. This would be the position to add a **belt distribution**. As you can see also here every part is referenced with the module name where it will occur. We got two lengths of belts: **260cm** and **480cm**.



260cm Belt

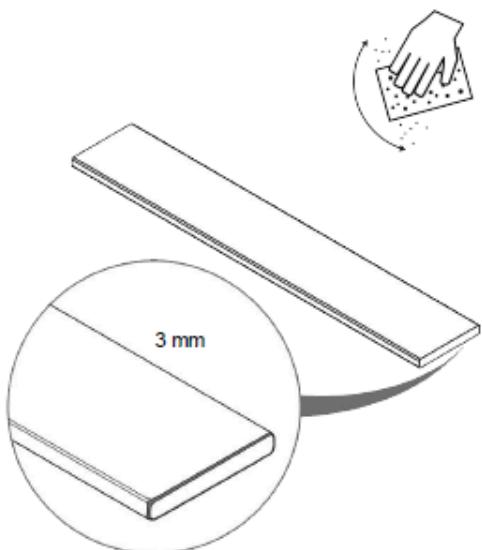


1



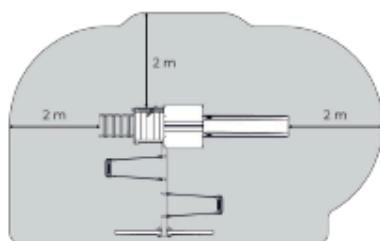
- Sortiere die Holzprofile und überprüfe sie auf ihre Vollständigkeit.
- Sort the timber profiles and check whether they are complete.
- Sorteer de houtprofielen en controleer of ze compleet zijn.
- Trier les profils en bois et vérifier qu'ils sont complets
- Ordinare i profili in legno e controllarne l'integrità.
- Clasifique los perfiles de madera y compruebe si están completos.

2



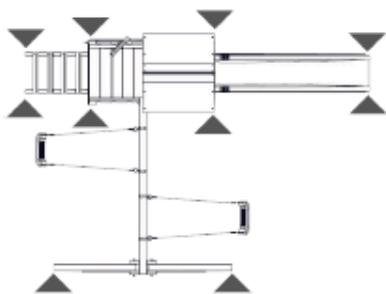
- Bitte die Stirnseiten aller Profile auf mindestens 3 mm abrunden.
- Please round the edges of all profiles to a radius of at least 3 mm.
- Bij alle houtprofielen de kopse kanten minstens 3 mm afronden.
- Veuillez s'il vous plaît arrondir les bords du bois à 3 mm.
- Si prega di smussare le estremità anteriori di tutti i profili per almeno 3 mm.
- Hay que redondear (por lo menos 3 mm) los bordes de los lados frontales.

3



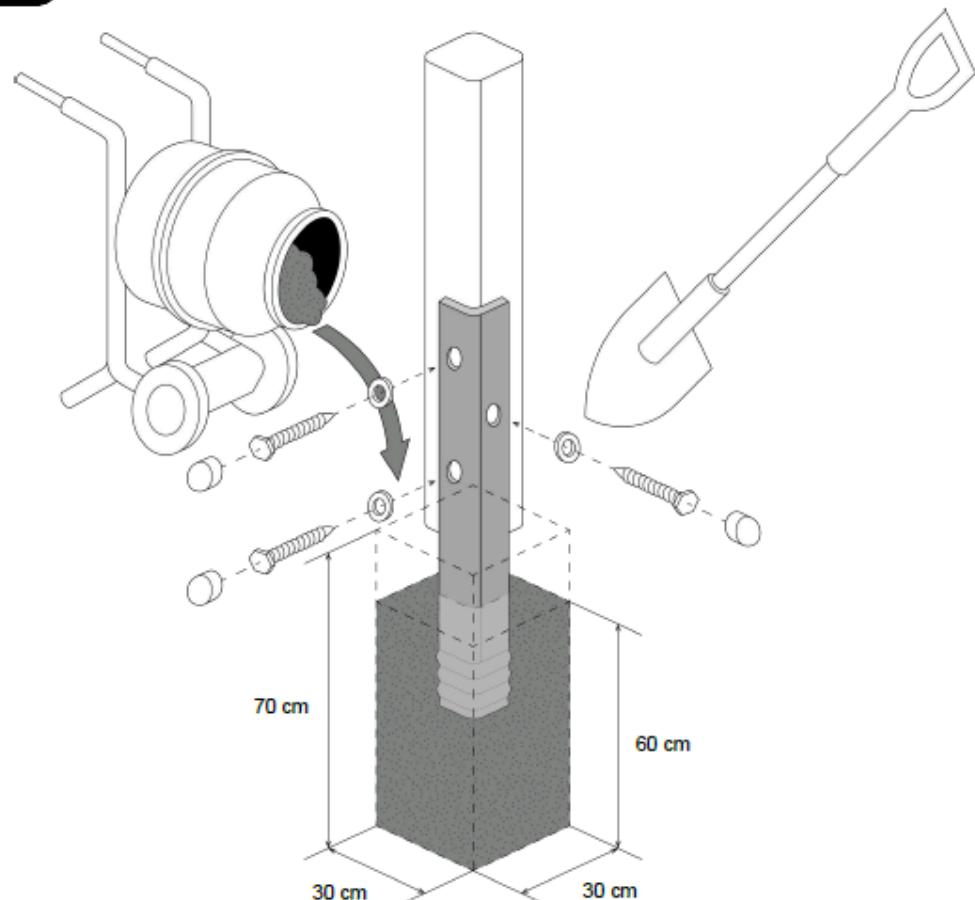
- Wir empfehlen einen Freiraum von mindestens 2 Metern ausgehend um die geplante Position des Aktivitätsspielzeugs.
- We recommend a free space of at least 2 meters around the intended position of the activity toy.
- We bevelen aan minstens 2 meter vrije ruimte rondom het speeltoestel aan te houden.
- Nous recommandons un espace libre d'au moins 2 mètres autour de la position prévue du jouet d'activité.
- Consigliamo di lasciare una distanza di sicurezza di almeno 2 metri rispetto alla posizione prevista del parco giochi con maggiori attività di gioco.
- Recomendamos un espacio libre de al menos 2 metros alrededor de la posición prevista para el parque infantil.

4



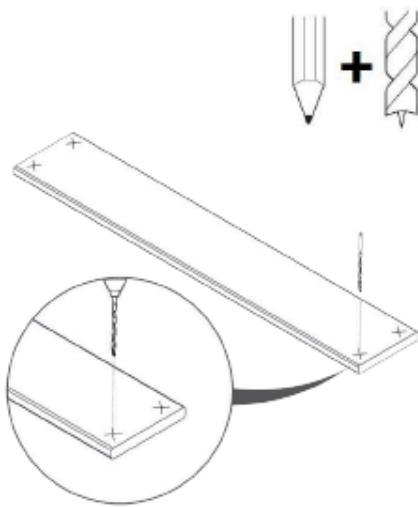
- Die Pflosten des Spielturms müssen verankert werden. Anker werden separat verkauft. Verwende den QR Code zu unseren Angeboten.
- The posts of the play tower need to be anchored. Anchors are sold separately. Use the QR code to find our offers.
- De palen van de speeltoren moeten worden verankerd. Ankers worden apart verkocht. Gebruik de QR-code voor onze aanbiedingen.
- Les poteaux de la tour de jeu doivent être ancrés. Les ancrages sont vendus séparément. Utilisez le code QR pour trouver nos offres.
- I pali del parco giochi dovranno essere ancorati. Gli ancoraggi sono venduti separatamente. Scansionare il codice QR per ulteriori informazioni.
- Los postes del parque infantil deben estar anclados. Los andajes se venden por separado. Escanee el código QR para acceder a nuestras ofertas.

5



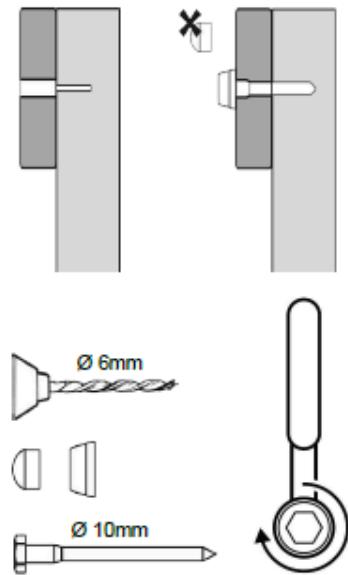
- Für die Verankerung sollte ein Loch von 70 cm Tiefe und beidseitig 30 cm Weite ausgegraben werden und mit Zement in einer Höhe von 60 cm aufgefüllt werden. Der Anker sollte an die Pfosten verschraubt werden und mittig in den frischen Zement platziert werden.
- For anchoring, a hole 70 cm deep and 30 cm wide on both sides should be dug and filled with cement at a height of 60 cm. The anchor should be screwed to the posts and placed centrally in the fresh cement.
- Voor de verankering moet een vierkant gat van 30 cm bij 70 cm diep breed worden gegraven. Vervolgens gevuld met cement tot een hoogte van 60 cm. Het anker moet aan de palen worden geschroefd en centraal in vers gestort cement worden geplaatst.
- Pour l'ancrage, il faut creuser un trou de 70 cm de profondeur et de 30 cm de large des deux côtés et le remplir de ciment à une hauteur de 60 cm. L'ancrage doit être vissé à chaque poteau et placé au milieu du ciment frais.
- Per l'ancoraggio, si deve scavare una buca profonda 70 cm e larga 30 cm su entrambi i lati e riempirla di cemento a un'altezza di 60 cm. L'ancoraggio deve essere avvitato ai pali e posizionato al centro del cemento fresco.
- Para el anclaje, se debe cavar un agujero de 70 cm de profundidad y 30 cm de ancho en ambos lados y rellenarlo con cemento a una altura de 60 cm. El anclaje debe atornillarse a los postes y colocarse en el centro del cemento fresco.

6



- Wir empfehlen die Stellen der benötigten Löcher im Holz mit einem Bleistift zu markieren und insfern möglich vor der entgültigen Montage vorzubohren.
- We recommend marking the positions of the required holes in the wood with a pencil and, if possible, pre-drilling them before the final assembly.
- Wij raden aan de posities van de vereiste gaten in het hout met een potlood af te tekenen en, indien mogelijk, voor te boren voör de eindmontage.
- Nous recommandons de marquer au crayon l'emplacement des trous nécessaires dans le bois et, si possible, de les prépercer avant le montage définitif.
- Si consiglia di segnare con una matita la posizione dei fori necessari nel legno e, se possibile, di preforarli prima del montaggio finale.
- Se recomienda marcar con un lápiz las posiciones de los agujeros necesarios en la madera y, si es posible, pretaladrarlos antes del montaje final.

7



- Zwei Wochen nach dem Aufbau und zur regelmäßigen Wartung alle Sechskantschrauben nachziehen. Anschließend die Schutzkappe hineindrücken.
- Retighten all hexagonal bolts two weeks after the assembly and for regular maintenance. Then press the protective cap inside.
- Twee weken na de montage en voor regelmatig onderhoud alle zeskantige bouten opnieuw aandraaien. Druk vervolgens de beschermkap in.
- Deux semaines après le montage et pour l'entretien régulier, resserrer toutes les vis à tête hexagonale. Ensuite, enfoncez le capuchon de protection.
- Due settimane dopo il montaggio e per la manutenzione ordinaria, serrare tutti i bulloni esagonali. Quindi premere il cappuccio protettivo.
- Dos semanas después del montaje y para el mantenimiento periódico, vuelva a apretar todos los tornillos hexagonales. A continuación, presione la tapa protectora.

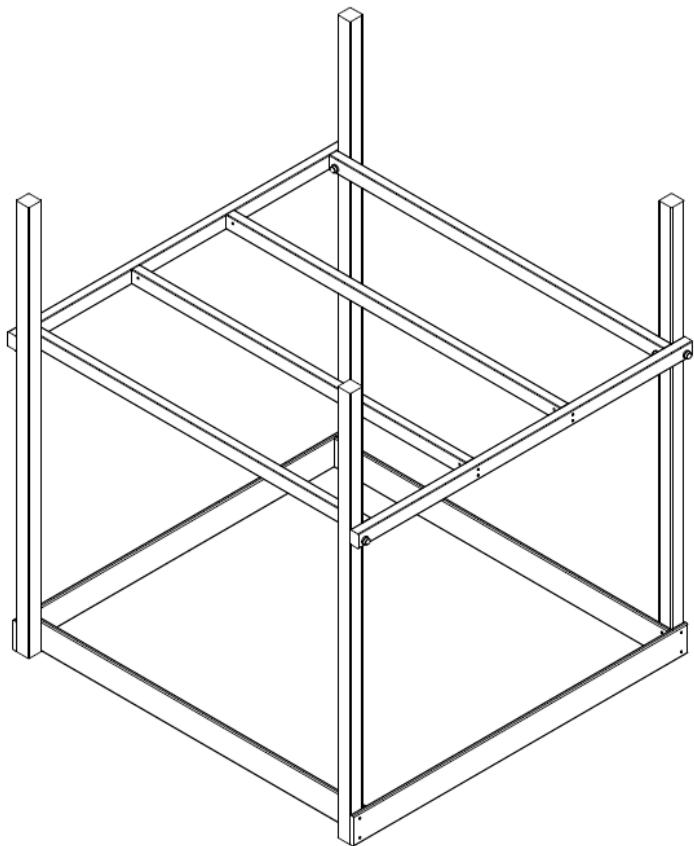
However in the majority of all playtowers they should suit. So this is where the parts List-document would end.

Individual Cover Page

And now we start showing how the tower is built! Our towers consist of **different modules** that ideally can be **used more than one time**. Every module has it's own manual. So later on the intention is, when an already existing module is used in a new tower, we can just add the already existing module manual in the overall manual of the new tower, saving us implementation time. The problem is, that this module manual does not show the **exact situation in the new tower**. This is why we have the '**Individual Cover Page**'. Just before each module-manual is starting the Individual Cover Page is added - and also saved as a separate PDF (mind the name-system we use!).

This page is showing how the exact tower (it is all about) is built up showing how it will look after you built up the following module.

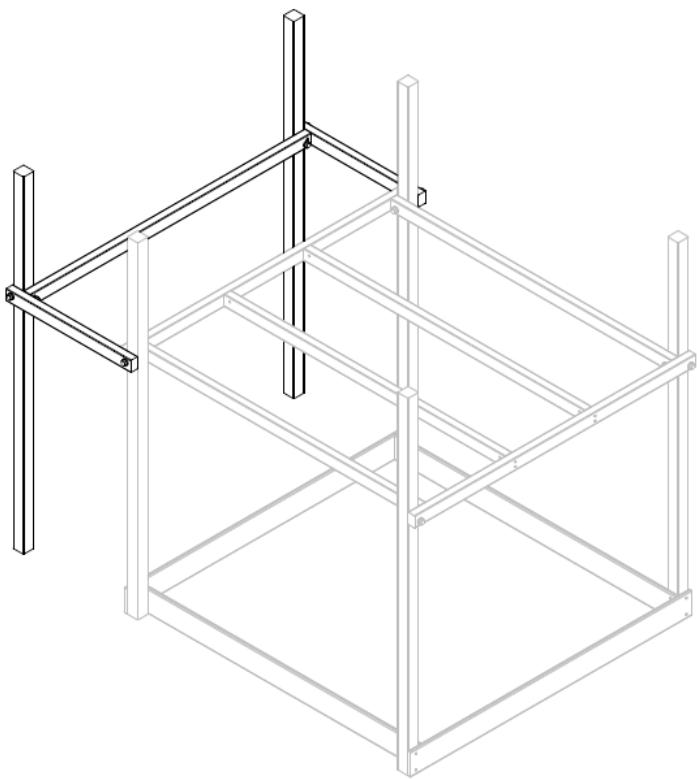
So usually, we start with frames as you can see here. As it is the first module to start with you just encounter this exact module without any connected modules.



Frame 016

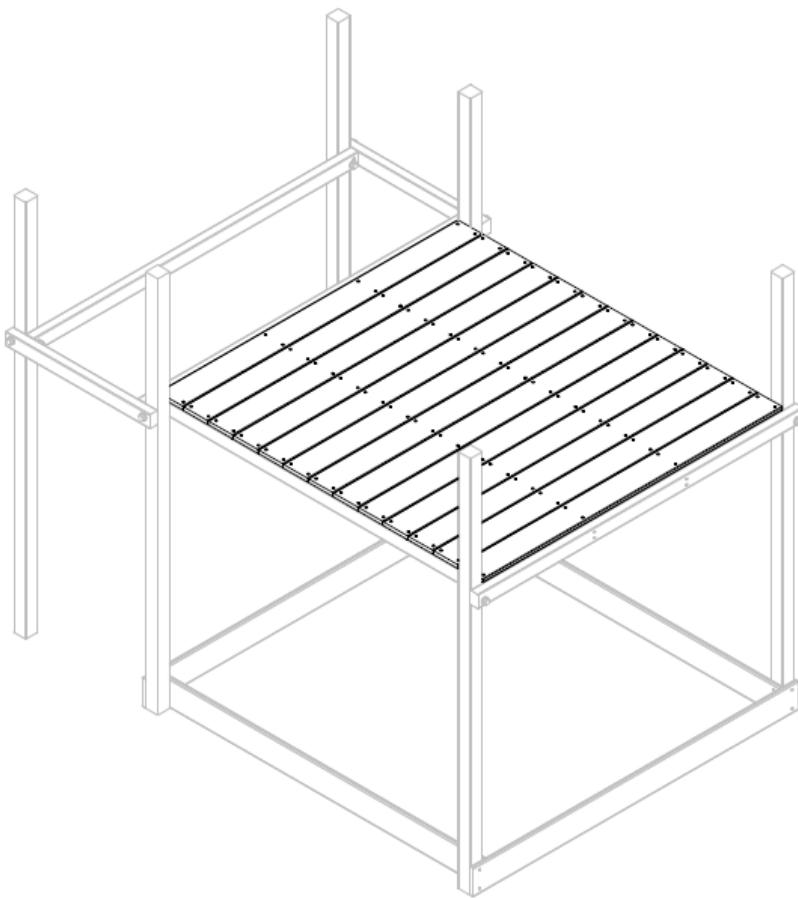
© Wickey GmbH & Co.KG | Frame 016 | Version 100

But here you can see that the Individual Cover Page shows where Frame 005 is mounted to in **reference** to Frame 016. The newly added module which will be built up in the next steps is always **black**, meanwhile the already built up modules show up in **light gray**.



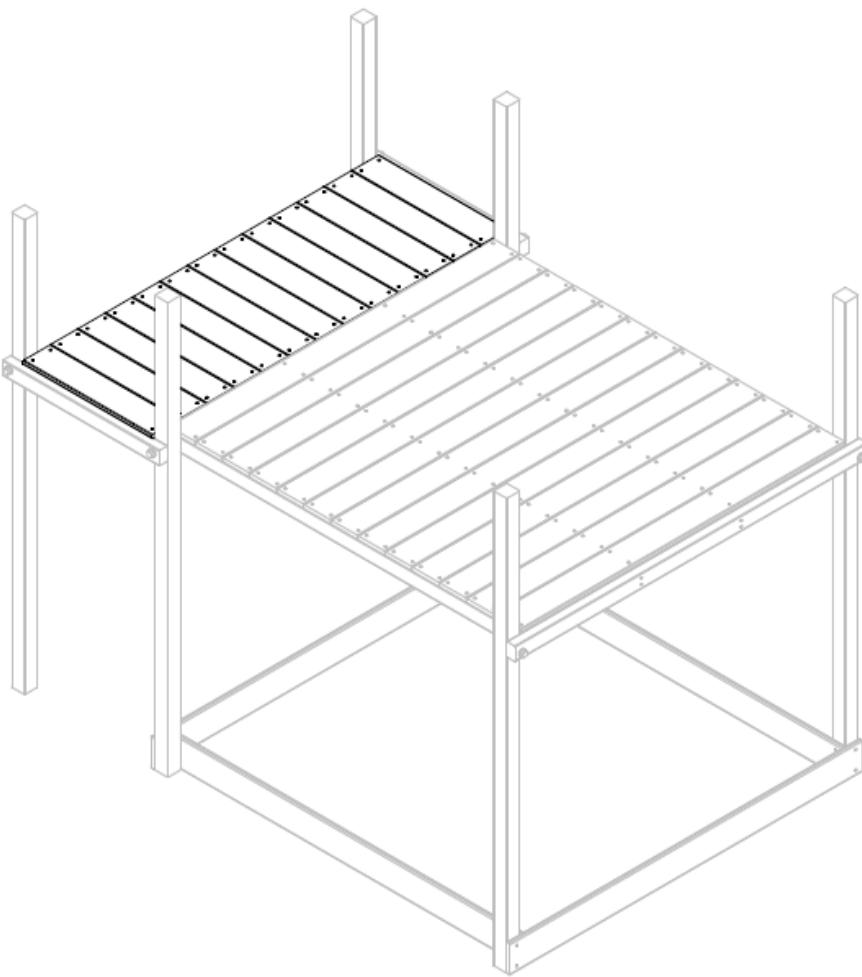
Frame 005

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Floor 007

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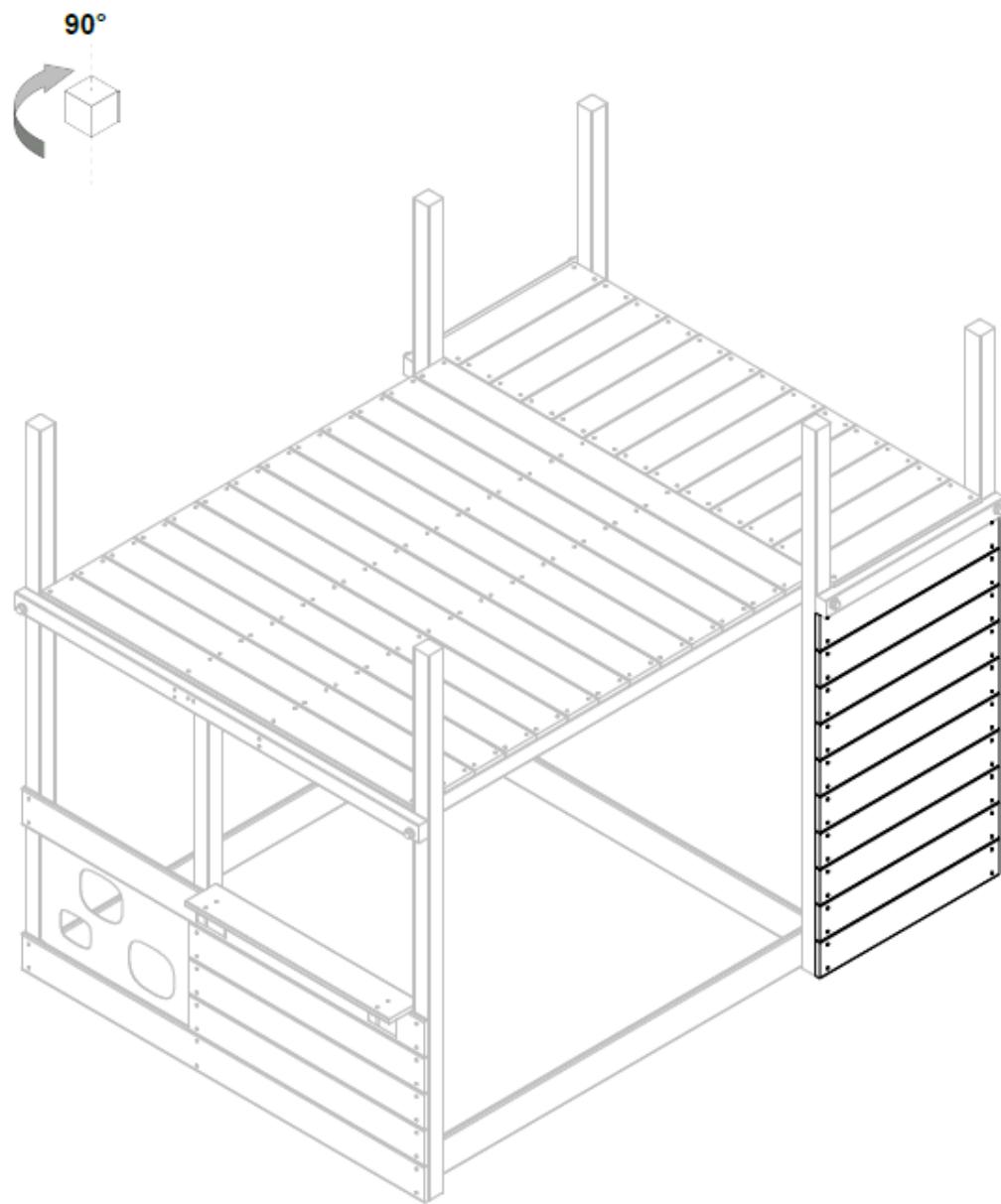


Floor 003

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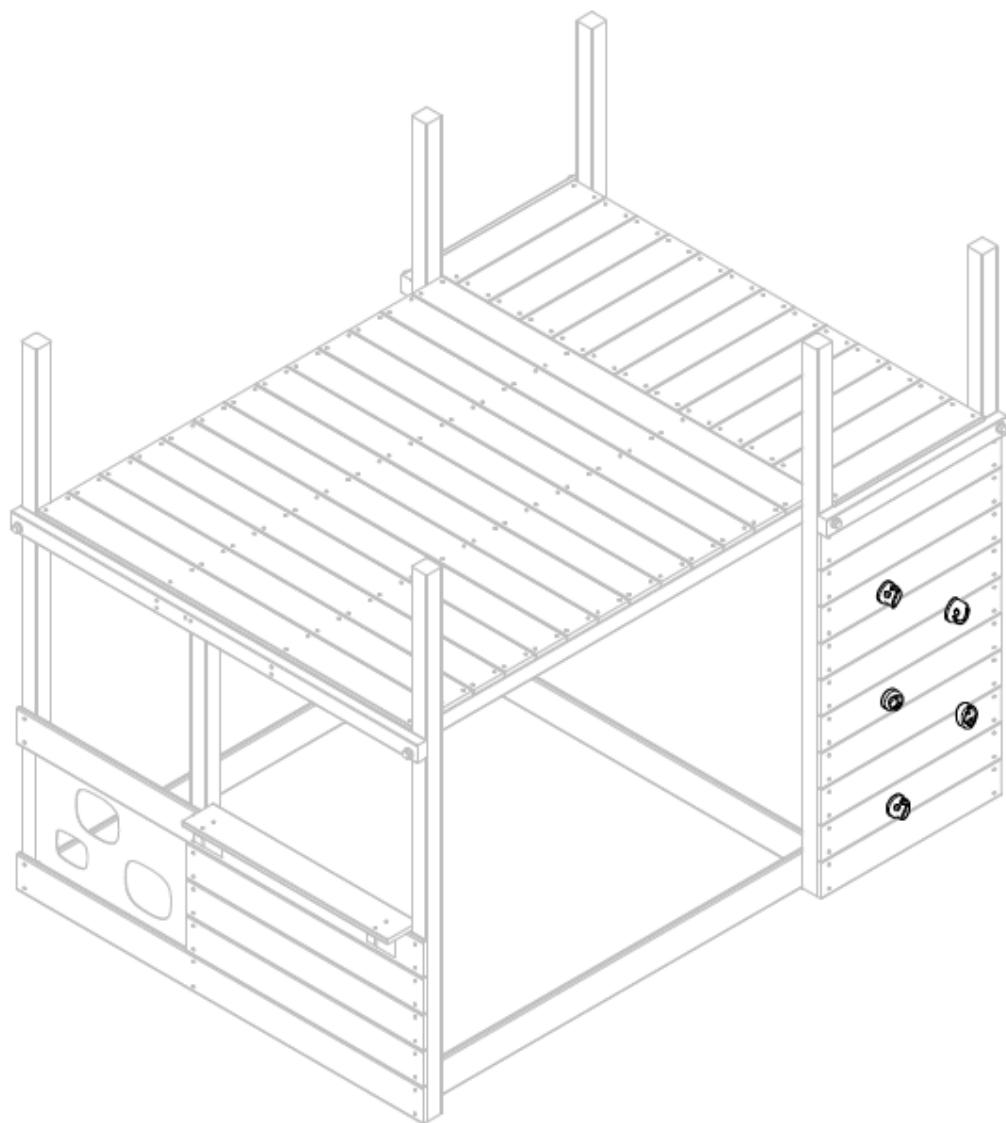
Do you see how it evolves with every cover page?

If the position of the tower needs to be turned throughout the cover pages, we show this by adding the dice on the upper left corner according to the rotation in reference to the position of the tower in the previous cover page. We differ between 90° degrees and 180° and counterclockwise and clockwise rotation.



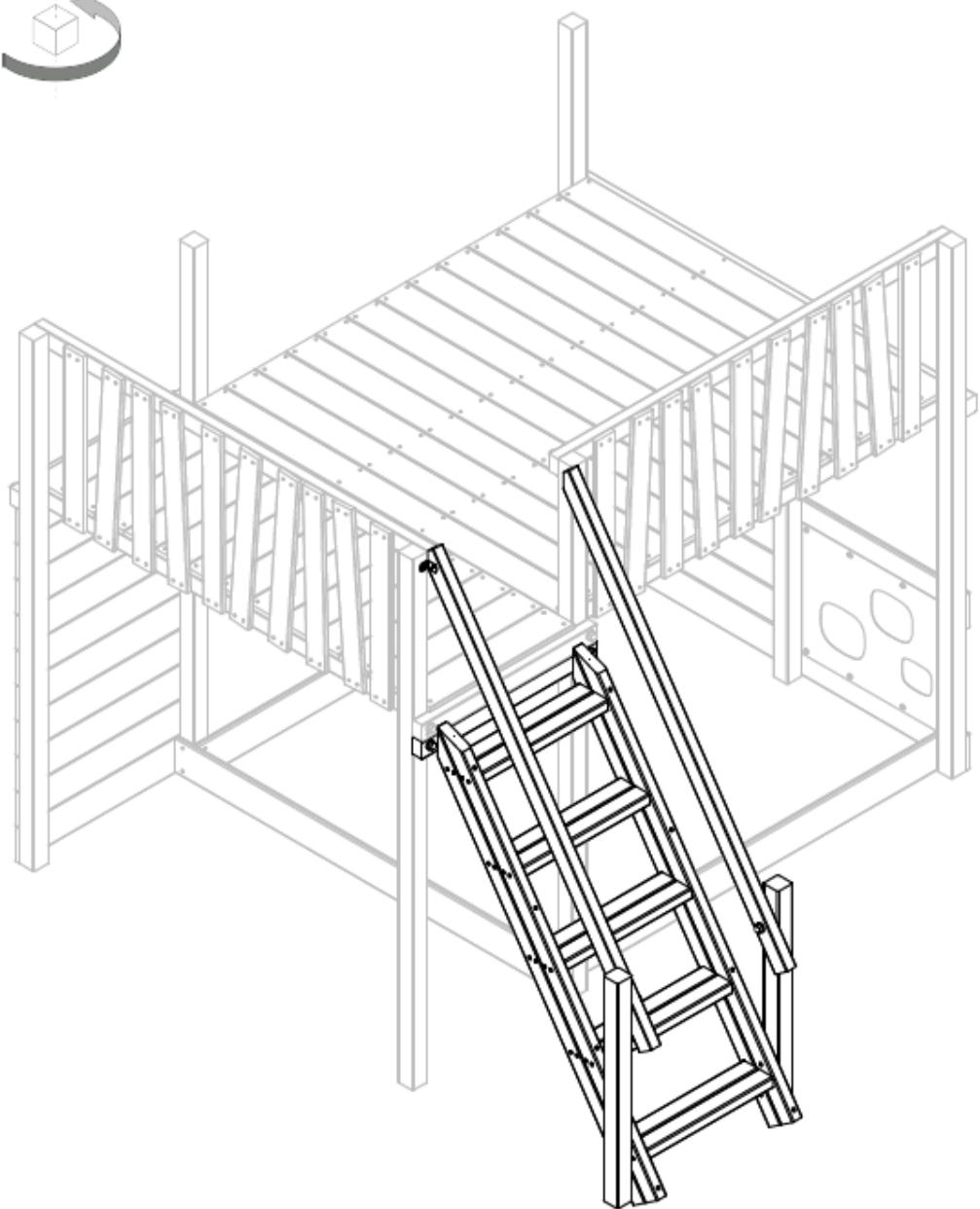
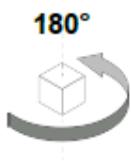
Wall 003

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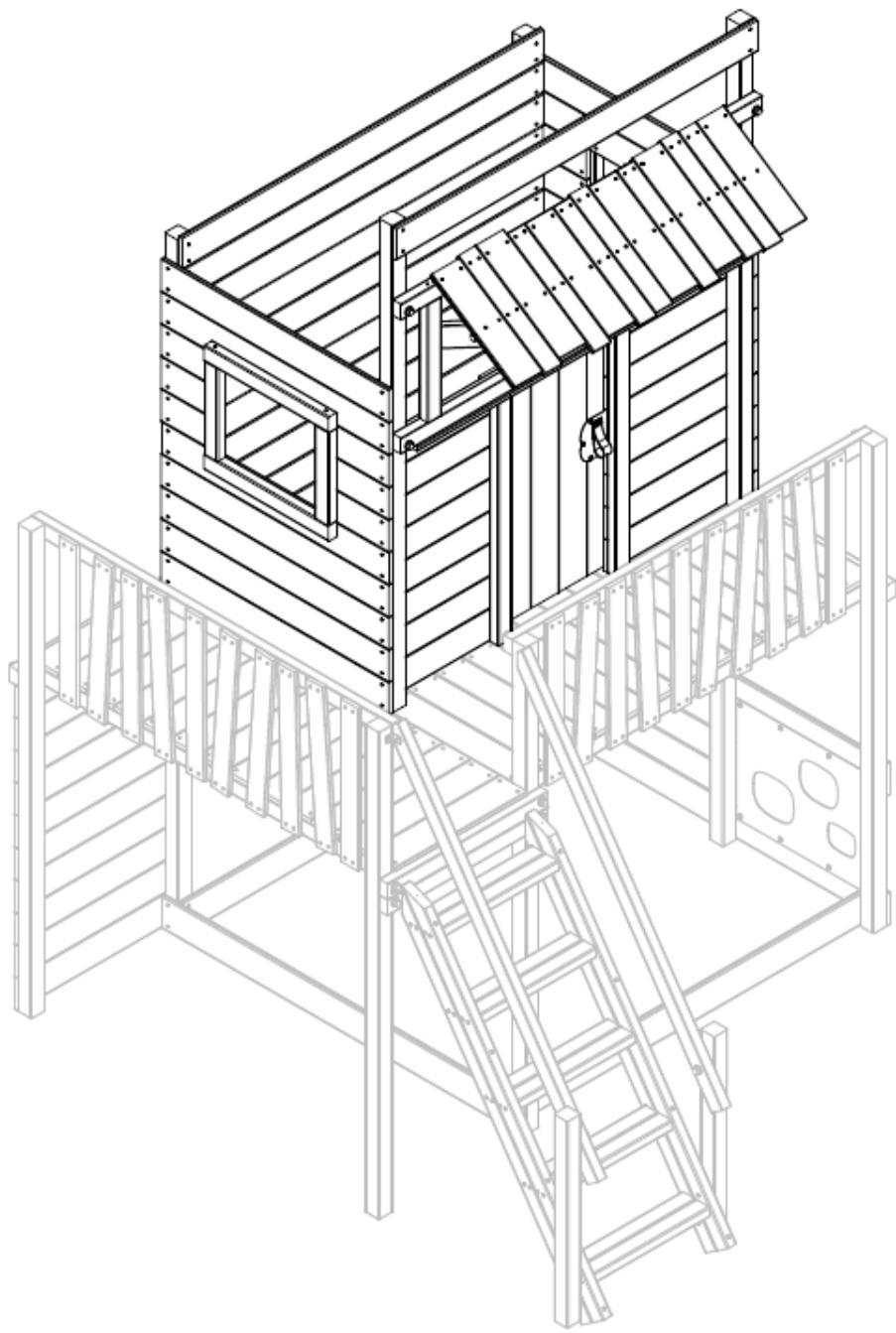
Climbing 003

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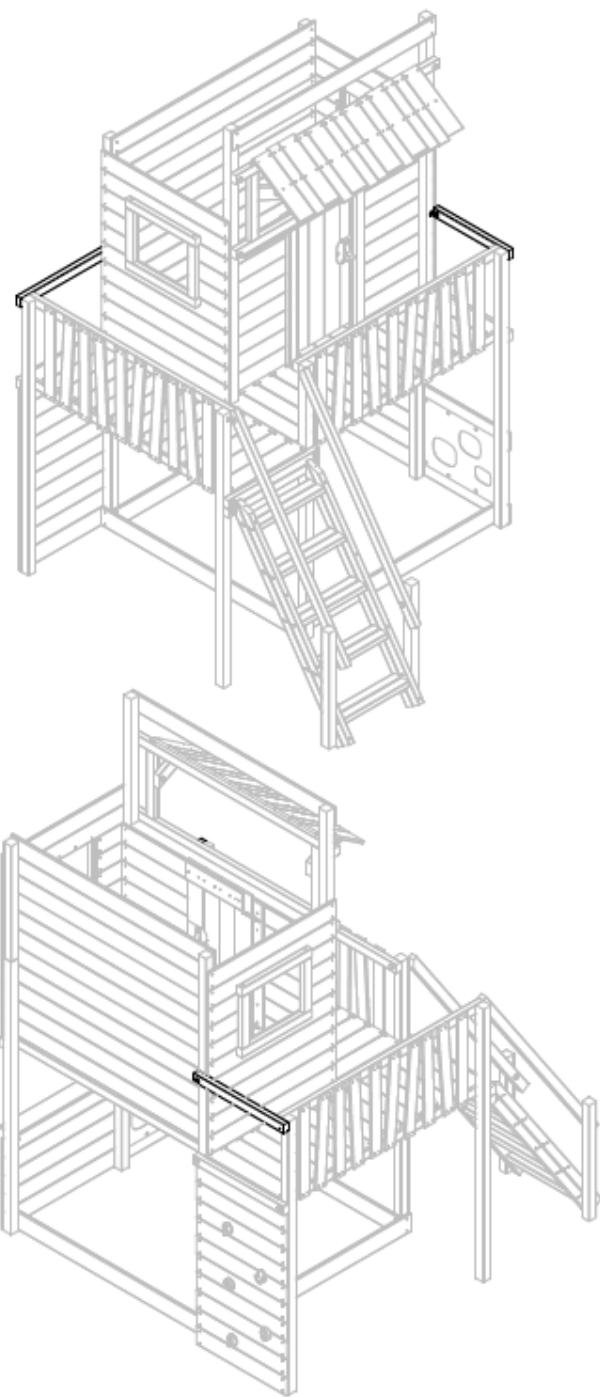
Ladder 009

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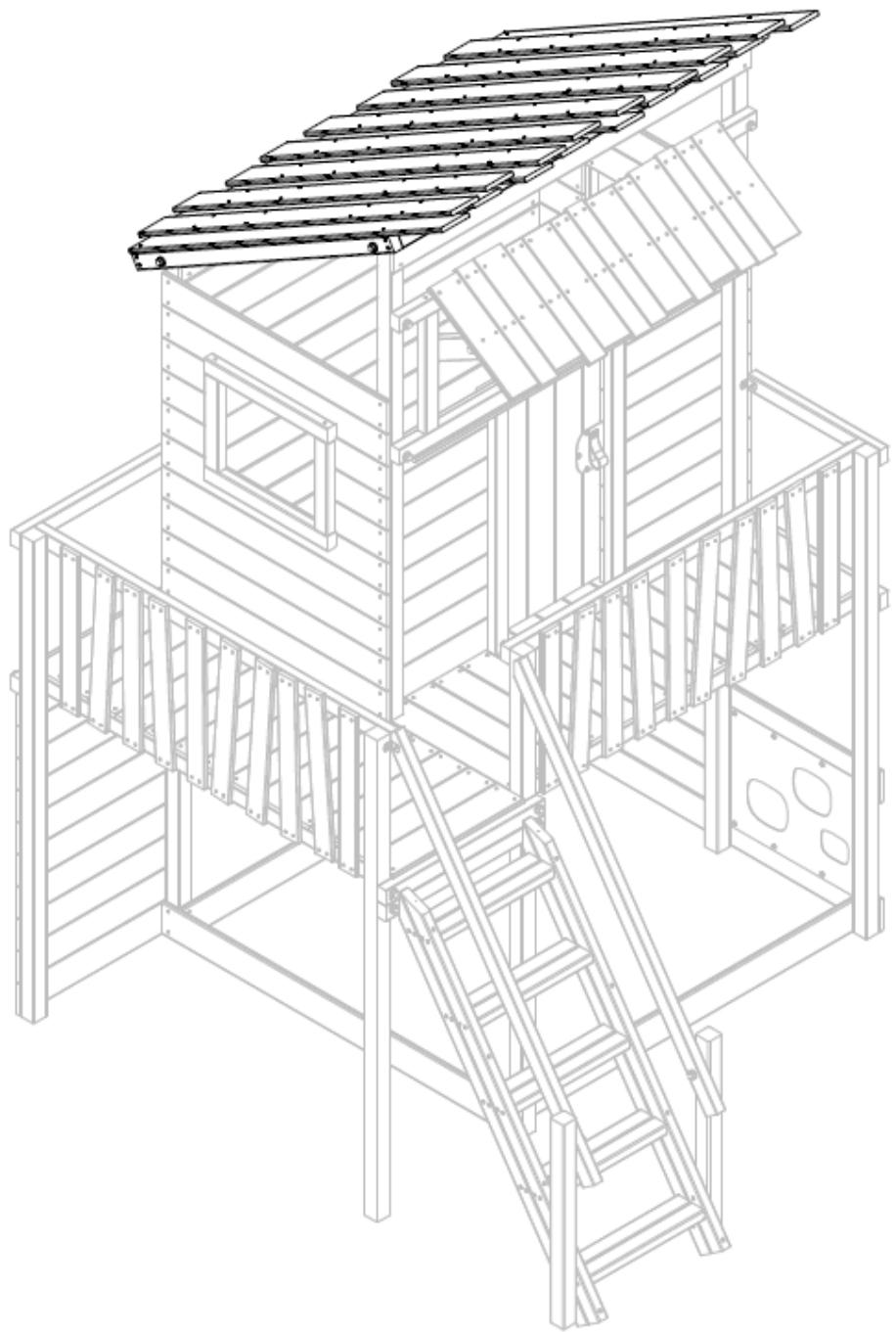
House 010

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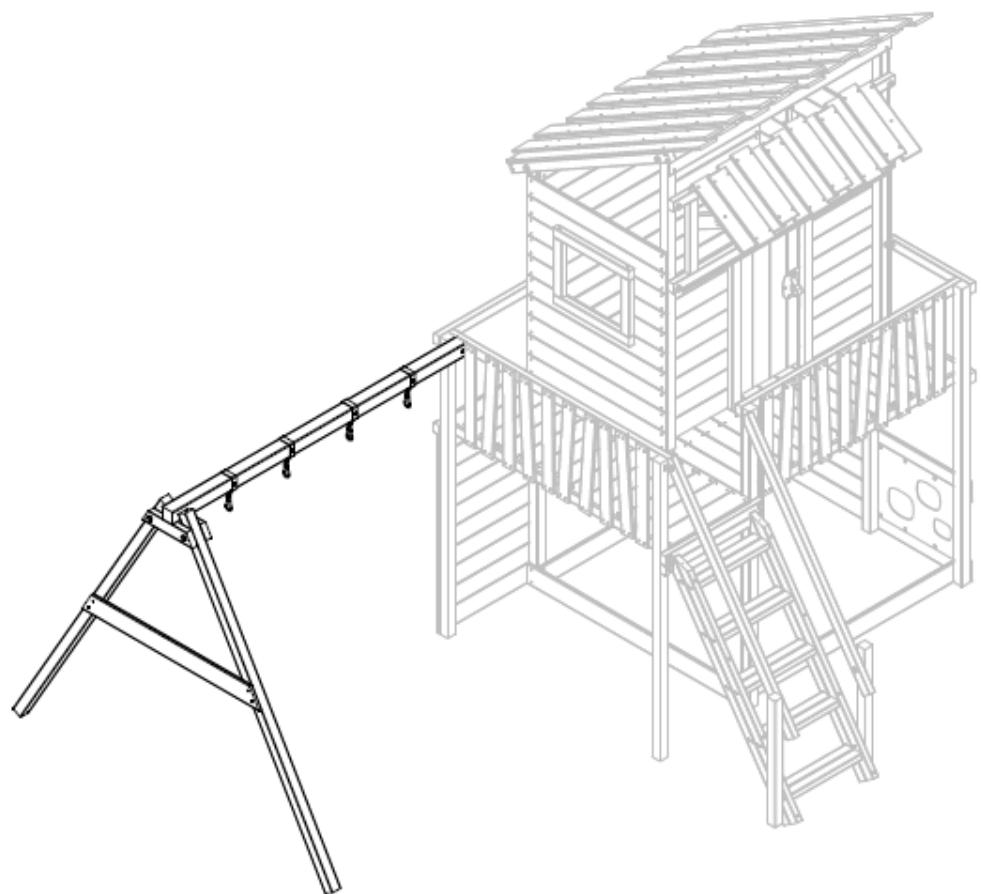
Railing 016 & 017

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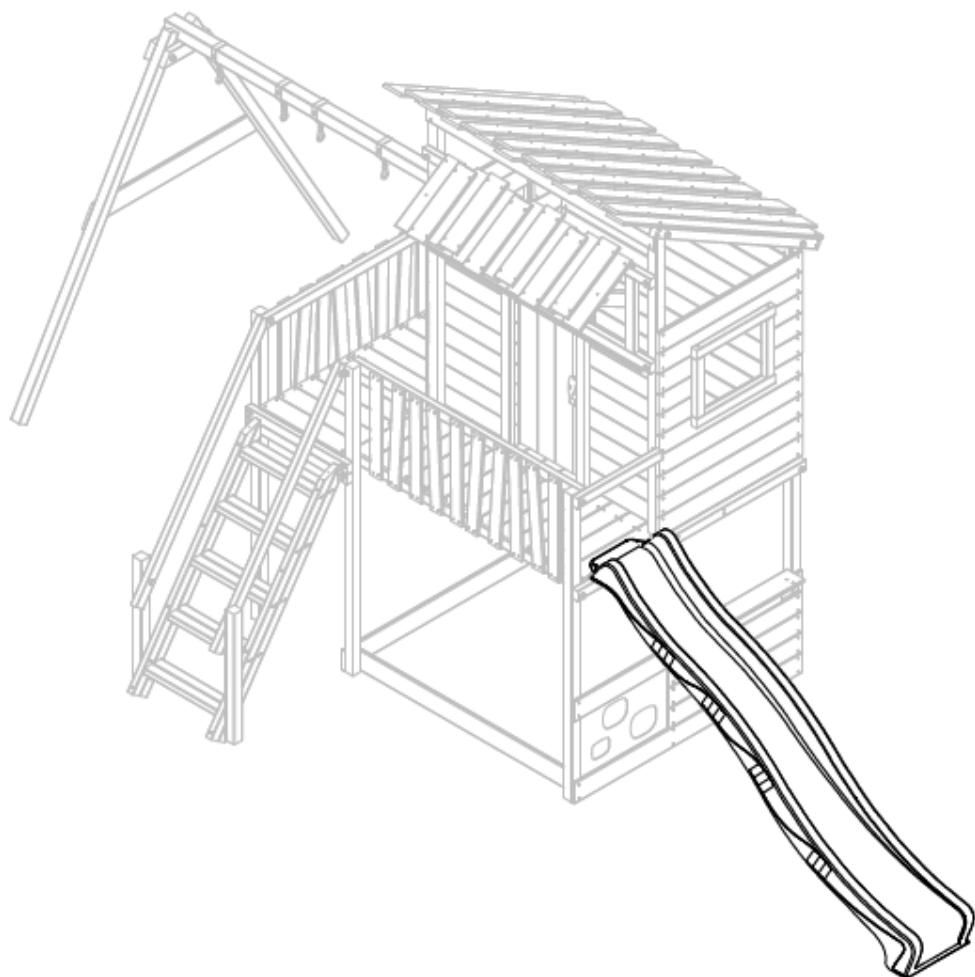
Roof 011

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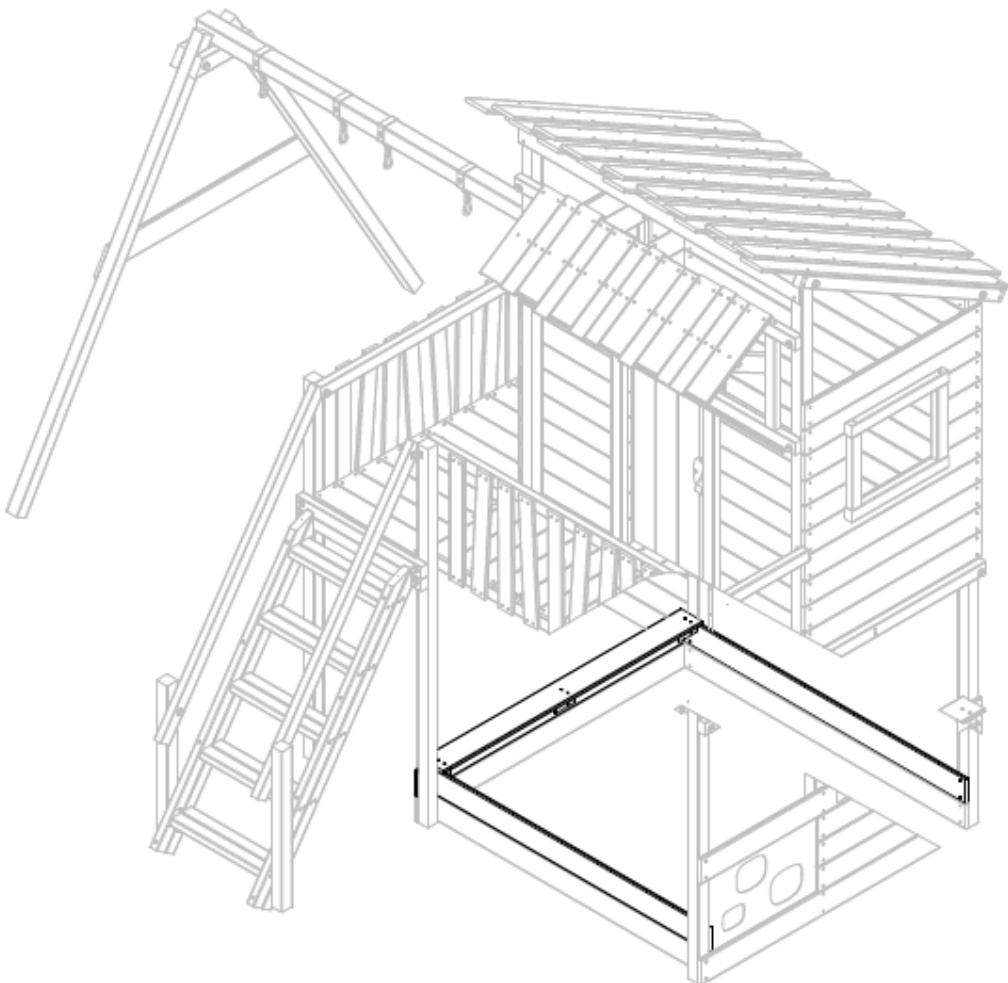


Swing Beam 005 & Swing Frame 001

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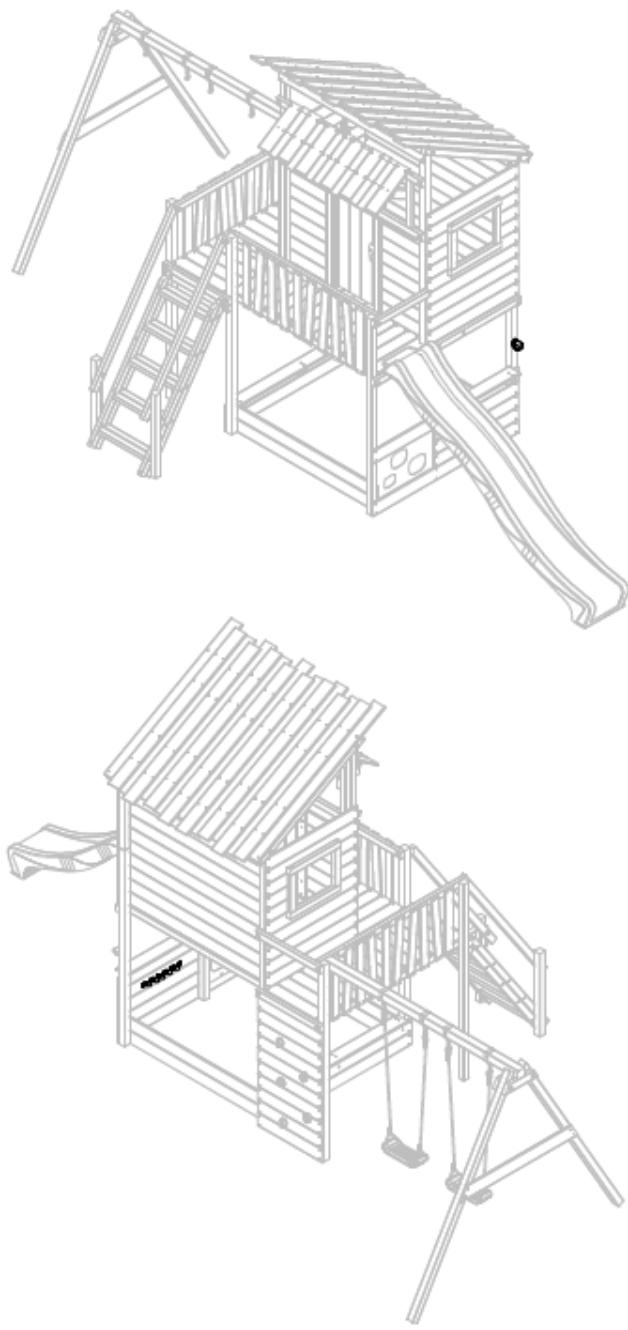


Slide 001



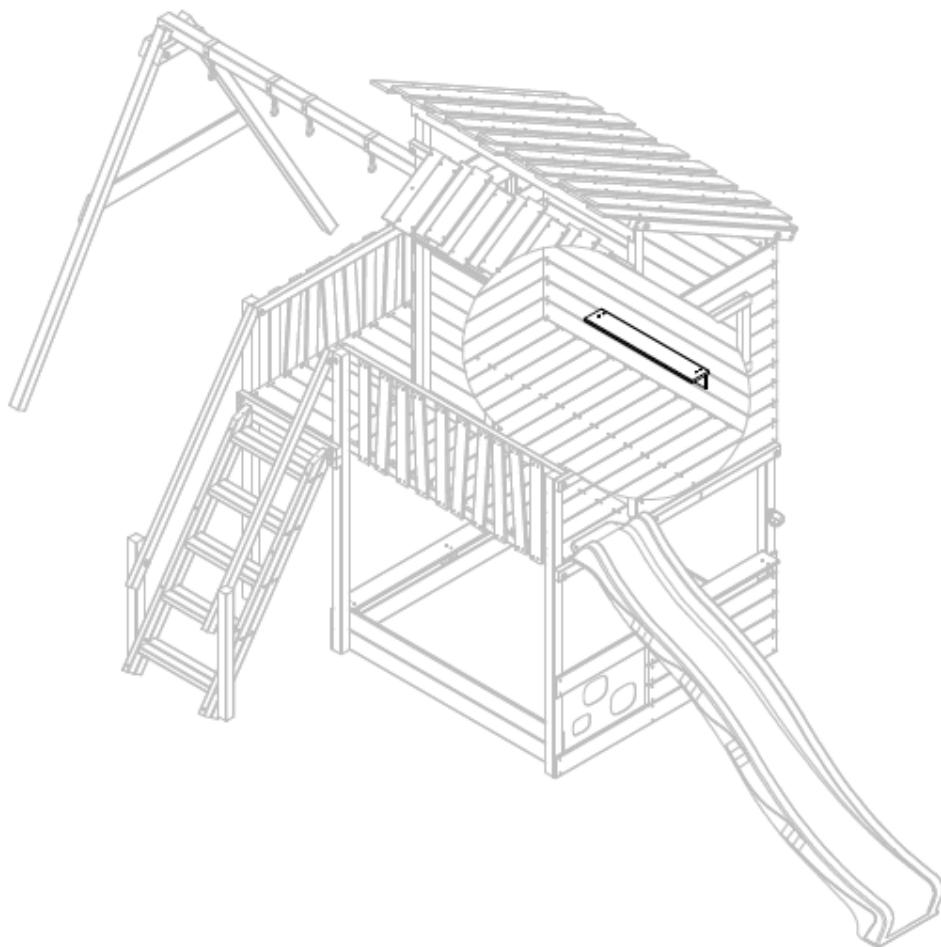
Extra 010 & 001

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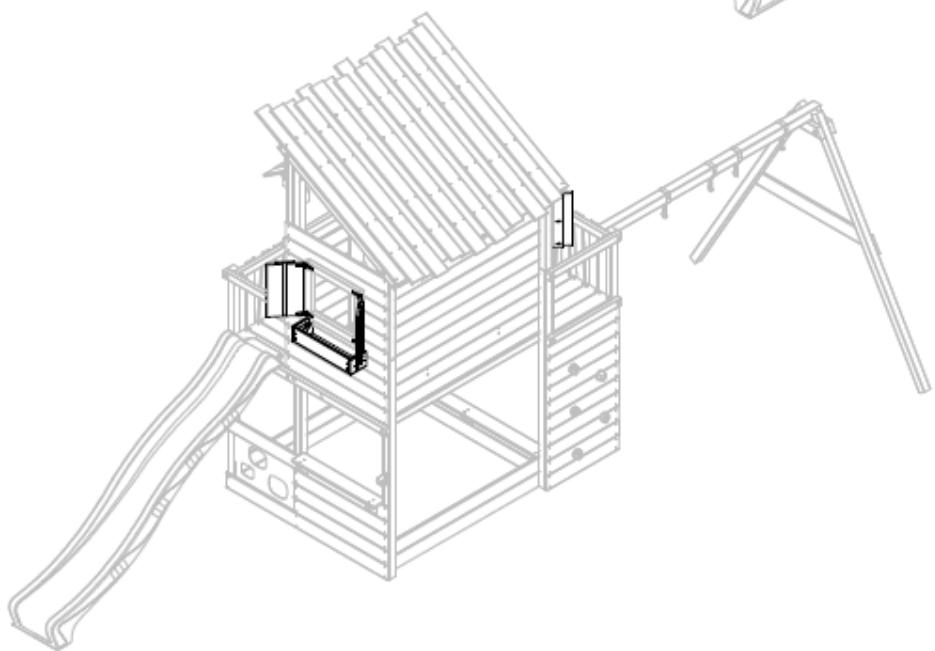
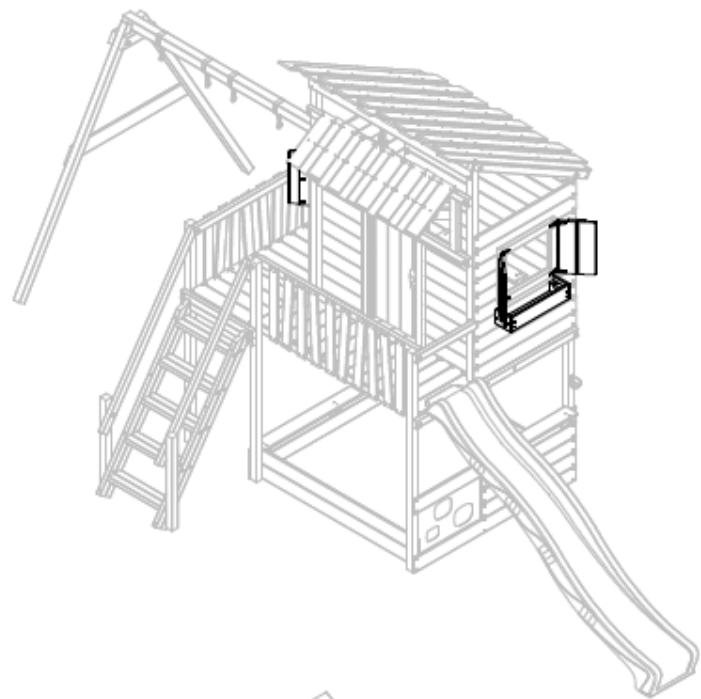
Extra 007 & 008

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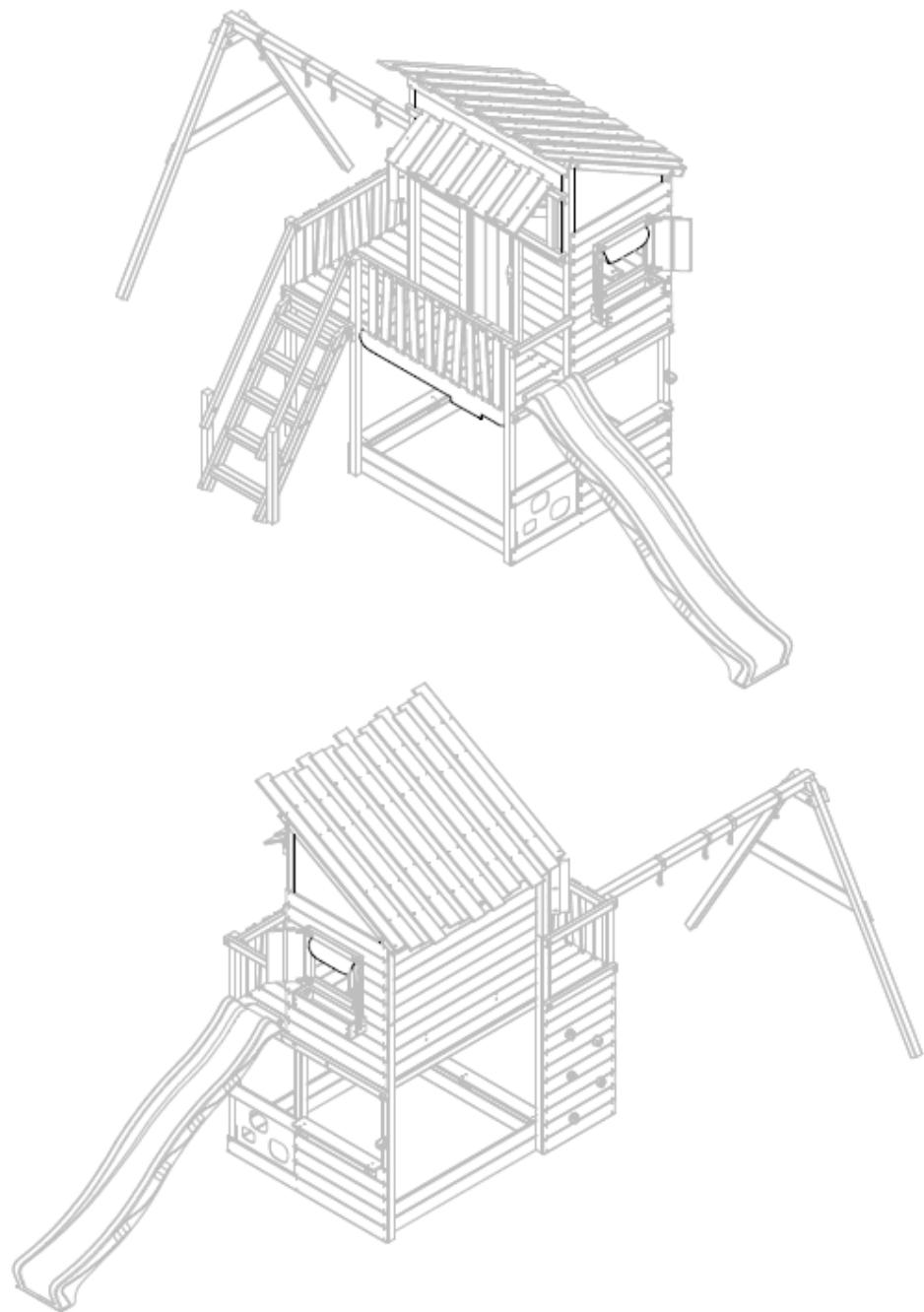
Extra 012

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Extra 016 & 017

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Decoration 006, 007 & 016

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Module Structure

Usually between all the Cover Pages you find the **module manuals**. The order, where to start can be changed freely. However there is still the requirement to be close to the usual order. Usually everything starts with the frame and follows the folder structure from top to bottom. Anchoring plans still are just a goal for the future and are not made yet but already have some space here.

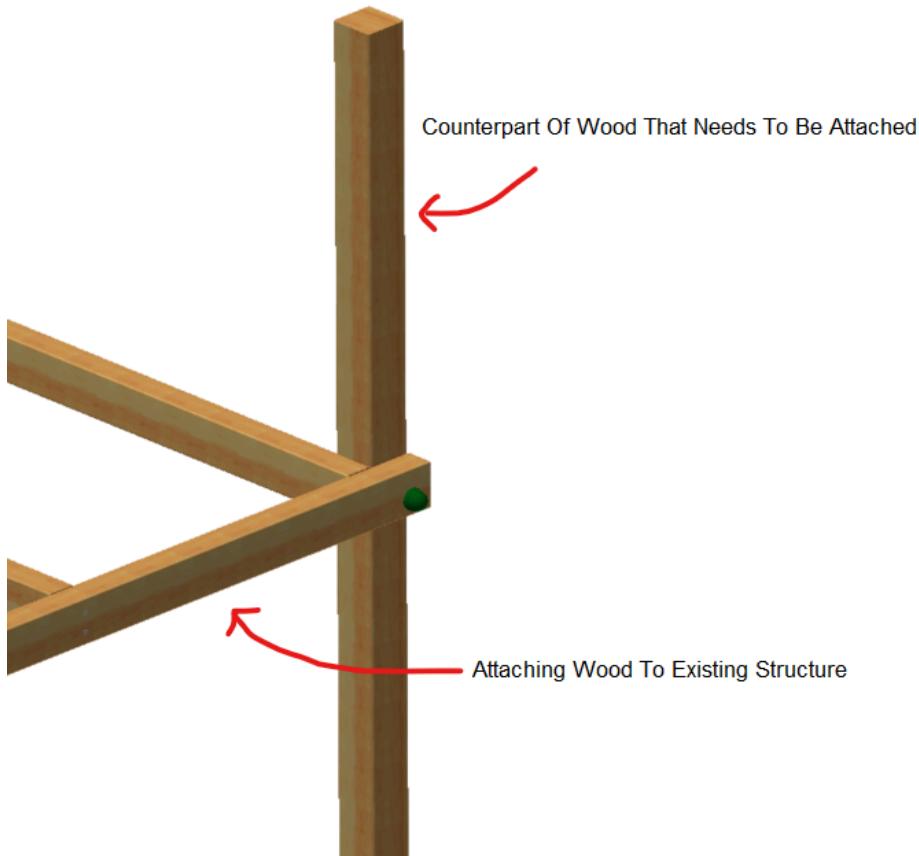
-  1 Frame
-  2 Bridge
-  3 Floor
-  4 Shop
-  5 Climbing
-  6 Railing
-  7 Wall
-  8 Ladder
-  9 House
-  10 Roof
-  11 Swing Beam
-  12 Swing Frame
-  13 Slide
-  14 Extra
-  15 Decoration
-  16 Accessoires
-  17 Anchoring

Modul Manual

Predrill-Reference-Table

Here you see how the module-manual starts. It starts again with naming all the used parts and their amounts again in the same order. As you can see, we recommend pre-drilling here. We do not do that everytime. Here I give you an overview, what would be necessary in which case:

General Case	Screw-Type	Drill-Diameter
General Predrilling Of Profiles To Avoid Cracking	4,5 x 50 mm	3 mm
General Predrilling Of Profiles To Avoid Cracking	5 x 40 mm	3 mm
General Predrilling Of Profiles To Avoid Cracking	5 x 80 mm	3 mm
General Predrilling Of Profiles To Avoid Cracking	6 x 90 mm	3 mm
General Predrilling Of Profiles To Avoid Cracking	M7 x 50	3 mm
General Predrilling Of Profiles To Avoid Cracking	M7 x 80	3 mm
Attaching Wood To Existing Structure	10 x 80	10 mm
Counterpart Of Wood That Needs To Be Attached	10 x 80	6 mm
Attaching Wood To Existing Structure	10 x 100	10 mm
Counterpart Of Wood That Needs To Be Attached	10 x 100	6 mm
Attaching Wood To Existing Structure	10 x 115	10 mm
Counterpart Of Wood That Needs To Be Attached	10 x 115	6 mm
Attaching Wood To Existing Structure	10 x 130	10 mm
Counterpart Of Wood That Needs To Be Attached	10 x 130	6 mm
Attaching Wood To Existing Structure	10 x 150	10 mm
Counterpart Of Wood That Needs To Be Attached	10 x 150	6 mm
Attaching Wood To Existing Structure	10 x 190	10 mm
Counterpart Of Wood That Needs To Be Attached	10 x 190	6 mm



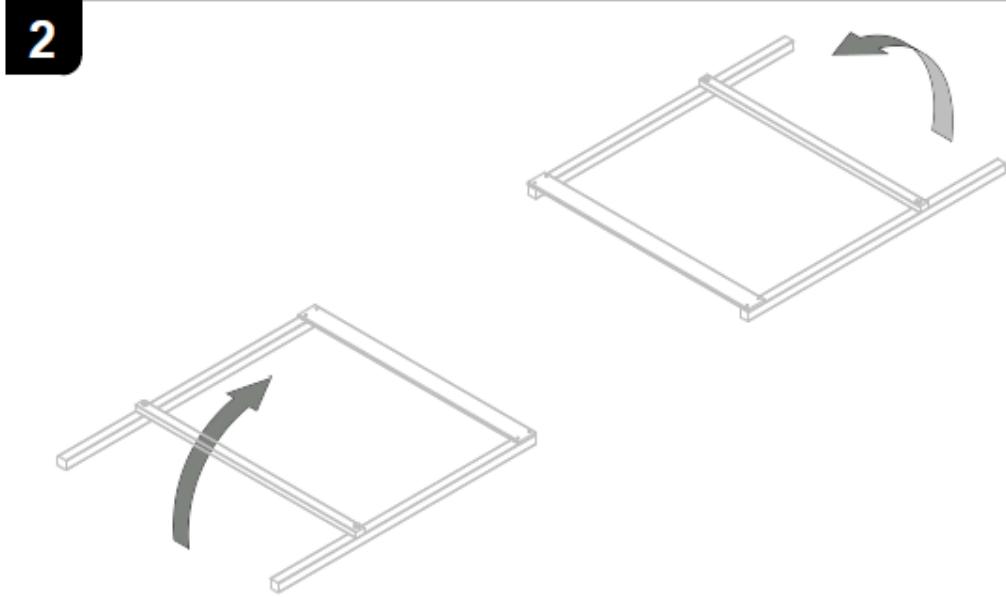
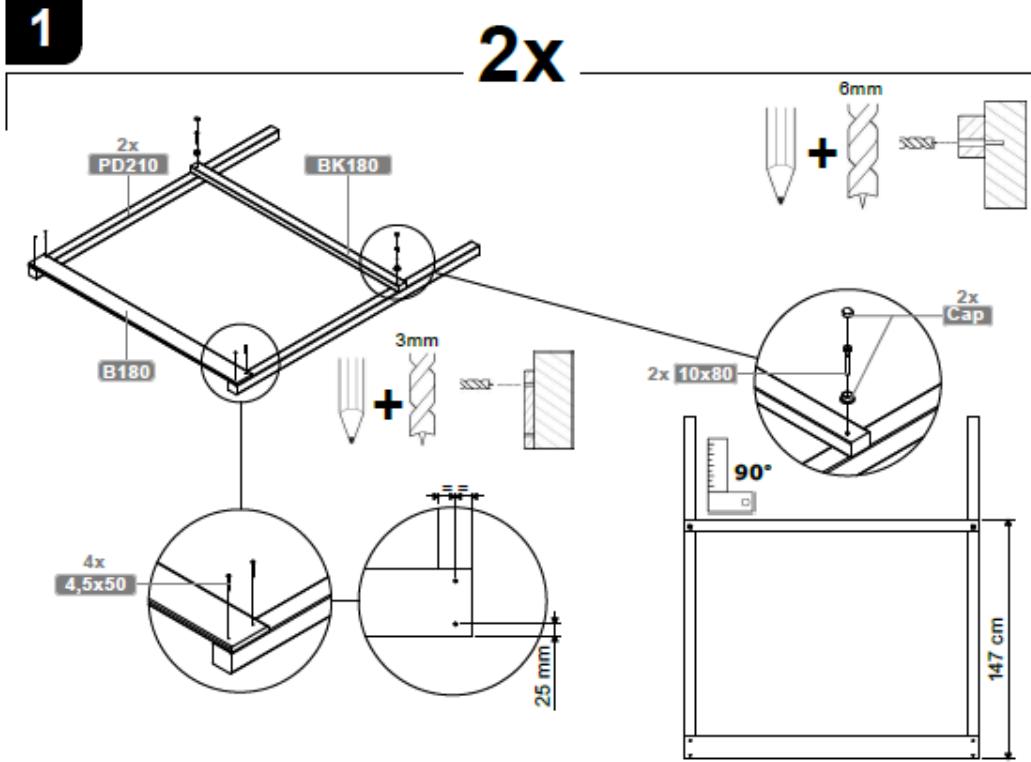
Specific cases:

- Towers coming with **anchors** (so far this is our Neverland-tower): Use **8mm** for the screws used for anchoring the posts with a carriage bolt such as M8x100
- Swing beams usually get pre drilled with **10mm** also for a carriage bolt such as the M10x190mm
- the fixation of the Climbing Stones **use 12mm as a pre drill diameter**

As you can see, we add symbols to show if we need to predrill through the already existing holes.

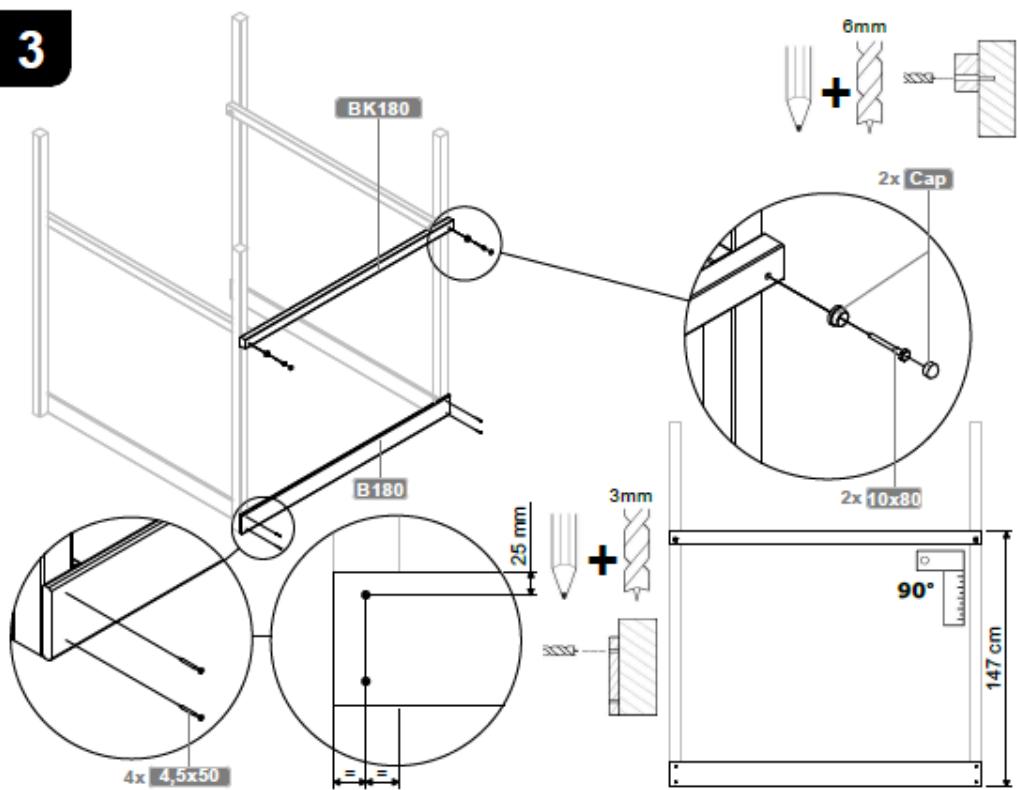
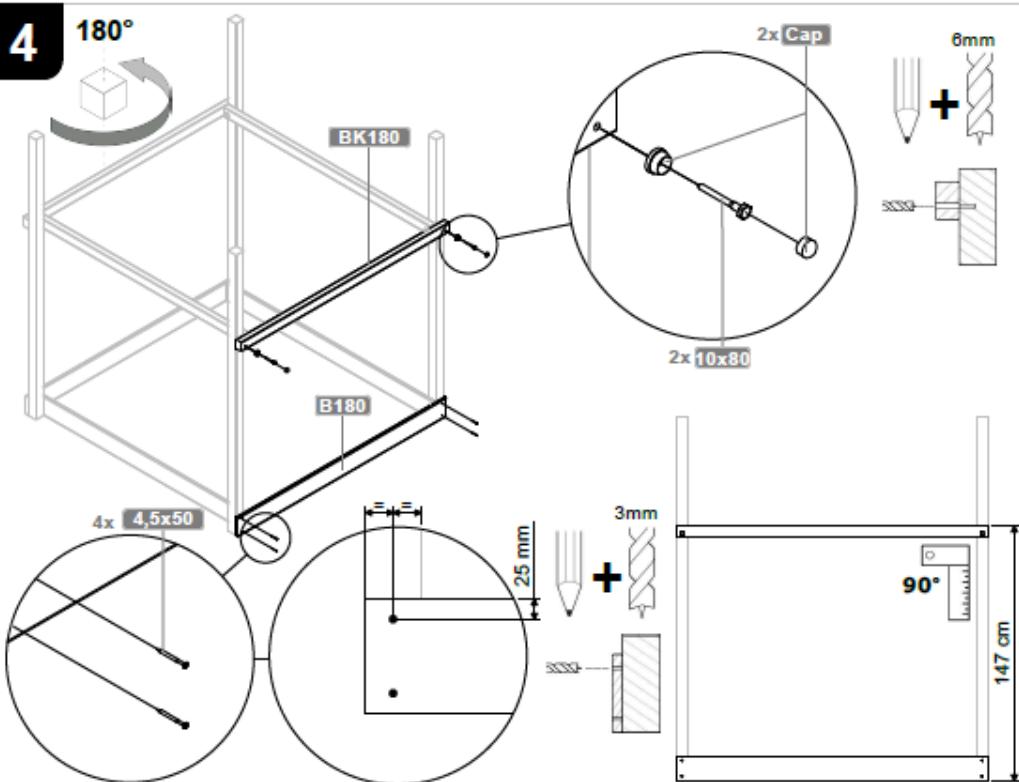
Or sometimes just the part has to be predrilled. Every new introduced part has to be referenced plus the amount it is used in the step. Everything should be visible and if not, it should be **turned around** to a suitable position or it might be a sign to have too many things going on in one step, that it should be **splitted**. Preferably the **reference** should point to a **whole good visible part**. So for the wood you probably can use the main view and for **screws** ideally make a **detailed view**. This makes it possible to see a zoomed-in version of the small parts. This would be an isometric view and then a 2D-view can follow, telling the customer where the screws need to be positioned exactly. Also here step 1 is quite critical as we recommend two different pre-drill diameters. Preferably this also should be splitted that just one diameter is named per step to avoid any sort of confusion. If it is crucial that parts are rectangular to each other

PD210 2100x68x68mm	BK180 1800x68x44mm	B180 1800x140x18mm	10x80 10x80mm	5x80 5x80mm	4,5x50 4,5x50mm	Cap
4x	6x	4x	8x	8x	16x	8x

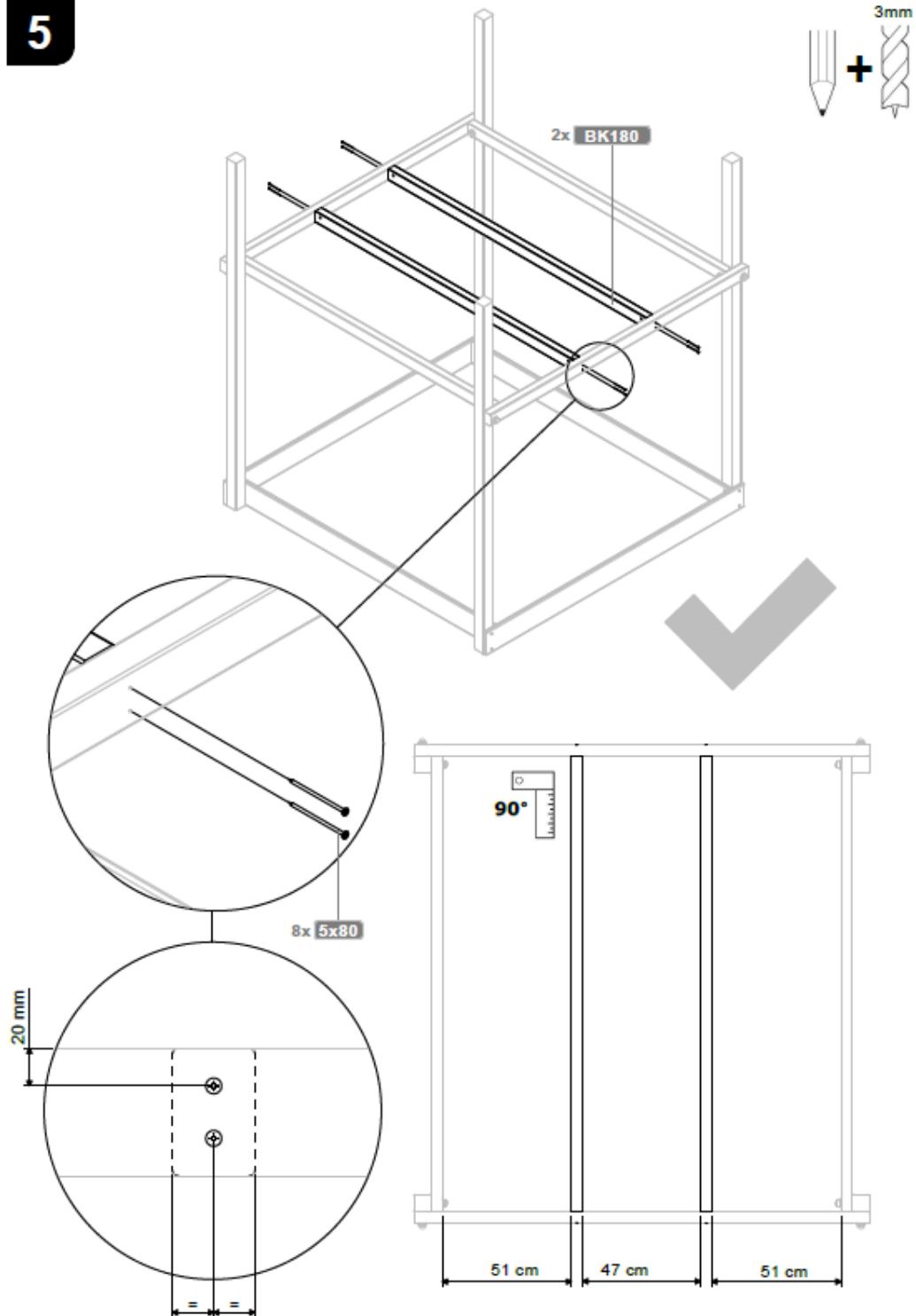


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This manual style stands for more clarity using more steps than we used before working with lots of arrows. So these kinds of steps showing how frames have to be assembled and turned are more emphasized here as you can see.

3**4**

5



When a module is finished, a hook symbol is added.

Notes & Maintenance

The manual ends with these pages. It depends how many pages we got if we use notes and how many notes we use, but the maintenance page you will encounter every time.

Notizen

Inspektions- und Wartungsbericht
Inspection and Maintenance report
Inspectie- en onderhoudsrapport
Rapport d'inspection etretien
Rapporto di revisione e manutenzione
Inspección e informe de mantenimiento



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info@wickey.de

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To find out how many note pages you need use this equation:

[(Total pages of the manual)-3 pages]:4=THIS SHOULD BE A WHOLE NUMBER (no commas)

If you do not have a whole number, add note pages to your total amount until you have a whole number!

The amount of pages needs to be added in Netsuite to the article of the manual itself.

Connecting All Pages (Batching)

To connect all separate pages we need to put the following folder to our Desktop.

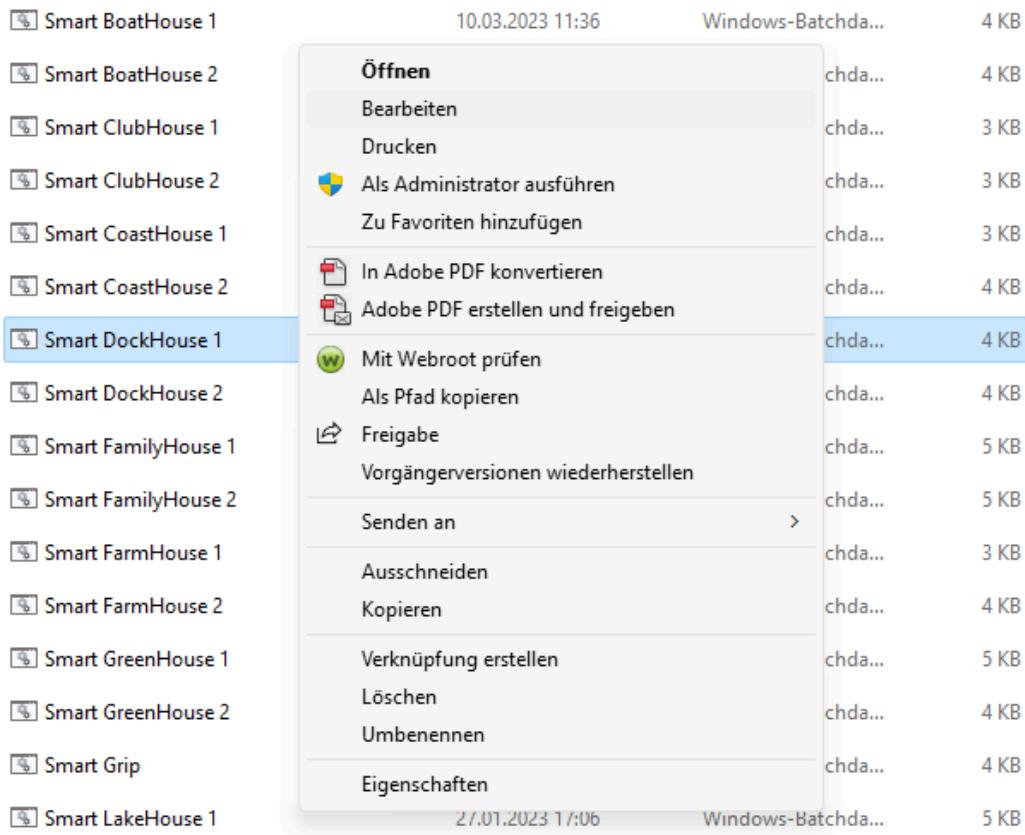
Dieser PC > Abteilung (Z) > Entwicklung > Bauanleitungen > Batch				
	Name	Änderungsdatum	Typ	Größe
ersonal	Auf Desktop	29.12.2017 08:44	Dateiordner	
	Betten	04.09.2017 10:08	Dateiordner	
	Fatmouse Privat	17.12.2016 00:46	Dateiordner	
	Fatmouse_und_Wickey	22.06.2022 14:02	Dateiordner	
	Heroows Privat	19.07.2021 14:44	Dateiordner	
	PRO	06.07.2020 13:56	Dateiordner	
	Wickey Privat	06.09.2018 11:21	Dateiordner	
	Probe	19.12.2016 11:22	Windows-Batchda...	1 KB

Dieser PC > Abteilung (Z) > Entwicklung > Bauanleitungen > Batch				
	Name	Änderungsdatum	Typ	Größe
ersonal	Auf Desktop	29.12.2017 08:44	Dateiordner	
	Betten	04.09.2017 10:08	Dateiordner	
	Fatmouse Privat	17.12.2016 00:46	Dateiordner	
	Fatmouse_und_Wickey	22.06.2022 14:02	Dateiordner	
	Heroows Privat	19.07.2021 14:44	Dateiordner	
	PRO	06.07.2020 13:56	Dateiordner	
	Wickey Privat	06.09.2018 11:21	Dateiordner	
	Probe	19.12.2016 11:22	Windows-Batchda...	1 KB

Having this on the Desktop you can make your own Batches.

Here you find the already written files:

📁 00000 Complete Building Manuals	02.02.2023 11:20	Dateiordner
📁 0000 Safety Instructions	22.09.2022 12:10	Dateiordner
📁 000 Extra Information	22.09.2022 12:10	Dateiordner
📁 00 Cover	18.11.2022 11:04	Dateiordner
📁 0 Parts List	04.07.2023 09:33	Dateiordner
📁 1 Frame	22.09.2022 12:51	Dateiordner
📁 2 Bridge	22.09.2022 12:52	Dateiordner
📁 3 Floor	22.09.2022 12:56	Dateiordner
📁 4 Shop	01.02.2023 08:58	Dateiordner
📁 5 Climbing	22.09.2022 13:43	Dateiordner
📁 6 Railing	22.09.2022 13:43	Dateiordner
📁 7 Wall	22.09.2022 12:17	Dateiordner
📁 8 Ladder	22.09.2022 12:17	Dateiordner
📁 9 House	22.09.2022 12:47	Dateiordner
📁 10 Roof	22.09.2022 12:48	Dateiordner
📁 11 Swing Beam	22.09.2022 12:44	Dateiordner
📁 12 Swing Frame	22.09.2022 12:47	Dateiordner
📁 13 Slide	22.09.2022 12:48	Dateiordner
📁 14 Extra	22.09.2022 12:48	Dateiordner
📁 15 Decoration	22.09.2022 12:49	Dateiordner
📁 16 Accessoires	22.09.2022 12:49	Dateiordner
📁 17 Anchor Plan	22.09.2022 12:49	Dateiordner
📁 999_Batch	22.09.2022 12:50	Dateiordner
📁 999_Other	22.09.2022 12:50	Dateiordner



This is how a typical file would look like. You basically tell where the program needs to find the saved PDF. Then you generate an output-file.

```

Smart DockHouse 1
Datei Bearbeiten Ansicht

@echo off & setlocal
%USERPROFILE%\Desktop\Bauanleitungen\pdftk.exe

set pdf1= "Z:\Entwicklung\Bauanleitungen\PDF 2023\00 Cover\Wickey\_COVER_SMART_DOCKHOUSE 1_2*.pdf"
set pdf2= "Z:\Entwicklung\Bauanleitungen\PDF 2023\0000 Safety_Instructions\Wickey\Safety_Information*.pdf"
set pdf3= "Z:\Entwicklung\Bauanleitungen\PDF 2023\0 Parts List\Play_structures\Wickey\Smart DockHouse 1*.pdf"
set pdf4= "Z:\Entwicklung\Bauanleitungen\PDF 2023\1 Frame\Wickey\Frame 016\Individual_ModulCovers\Individual_Cover_Page_Frame_016_Smart_DockHouse (1*.pdf"
set pdf5= "Z:\Entwicklung\Bauanleitungen\PDF 2023\1 Frame\Wickey\Frame 016\Frame_016 (1*.pdf"
set pdf6= "Z:\Entwicklung\Bauanleitungen\PDF 2023\1 Frame\Wickey\Frame 005\Individual_ModulCovers\Individual_Cover_Page_Frame_005_Smart_DockHouse (1*.pdf"
set pdf7= "Z:\Entwicklung\Bauanleitungen\PDF 2023\1 Frame\Wickey\Frame 005\Frame_005 (1*.pdf"
set pdf8= "Z:\Entwicklung\Bauanleitungen\PDF 2023\1 Floor\Wickey\Floor 007\Individual_ModulCovers\Individual_Cover_Page_Floor_007_Smart_DockHouse (1*.pdf"
set pdf9= "Z:\Entwicklung\Bauanleitungen\PDF 2023\1 Floor\Wickey\Floor 007\Floor_007 (1*.pdf"
set pdf10= "Z:\Entwicklung\Bauanleitungen\PDF 2023\1 Floor\Wickey\Floor 003\Individual_ModulCovers\Individual_Cover_Page_Floor_003_Smart_DockHouse (1*.pdf"
set pdf11= "Z:\Entwicklung\Bauanleitungen\PDF 2023\3 Floor\Wickey\Floor 003\floor_003 (1*.pdf"
set pdf12= "Z:\Entwicklung\Bauanleitungen\PDF 2023\4 Shop\Wickey\Shop 001\Individual_ModulCovers\Individual_Cover_Page_Shop_001_Smart_DockHouse (1*.pdf"
set pdf13= "Z:\Entwicklung\Bauanleitungen\PDF 2023\4 Shop\Wickey\Shop 001\Shop_001 (1*.pdf"
set pdf14= "Z:\Entwicklung\Bauanleitungen\PDF 2023\7 Wall\Wickey\Wall 003\Individual_ModulCovers\Individual_Cover_Page_Wall_003_Smart_DockHouse (1*.pdf"
set pdf15= "Z:\Entwicklung\Bauanleitungen\PDF 2023\7 Wall\Wickey\Wall 003\wall_003 (1*.pdf"
set pdf16= "Z:\Entwicklung\Bauanleitungen\PDF 2023\5 Climbing\Wickey\Climbing 003\Individual_ModulCovers\Individual_Cover_Page_Climbing_003_Smart_DockHouse (1*.pdf"
set pdf17= "Z:\Entwicklung\Bauanleitungen\PDF 2023\5 Climbing\Wickey\Climbing 003\Climbing_003 (1*.pdf"
set pdf18= "Z:\Entwicklung\Bauanleitungen\PDF 2023\6 Railing\Wickey\Railing 014\Individual_ModulCovers\Individual_Cover_Page_Railing_014_Smart_DockHouse (1*.pdf"
set pdf19= "Z:\Entwicklung\Bauanleitungen\PDF 2023\6 Railing\Wickey\Railing 014\Railing_014 (1*.pdf"
set pdf20= "Z:\Entwicklung\Bauanleitungen\PDF 2023\8 Ladder\Wickey\Ladder 009\Individual_ModulCovers\Individual_Cover_Page_Ladder_009_Smart_DockHouse (1*.pdf"
set pdf21= "Z:\Entwicklung\Bauanleitungen\PDF 2023\8 Ladder\Wickey\Ladder 009\ladder_009 (1*.pdf"
set pdf22= "Z:\Entwicklung\Bauanleitungen\PDF 2023\9 House\Wickey\House 010\Individual_ModulCovers\Individual_Cover_Page_House_010_Smart_DockHouse (1*.pdf"
set pdf23= "Z:\Entwicklung\Bauanleitungen\PDF 2023\9 House\Wickey\House 010\house_010 (1*.pdf"
set pdf24= "Z:\Entwicklung\Bauanleitungen\PDF 2023\999_Other\Wickey\notizen*.pdf"
set pdf25= "Z:\Entwicklung\Bauanleitungen\PDF 2023\999_Other\Wickey\wickey_wartungsbericht*.pdf"

set out= "Z:\Entwicklung\Bauanleitungen\PDF 2023\0000 Complete_Building_Manuals\Wickey\New\smart_dockhouse_1_10.pdf"

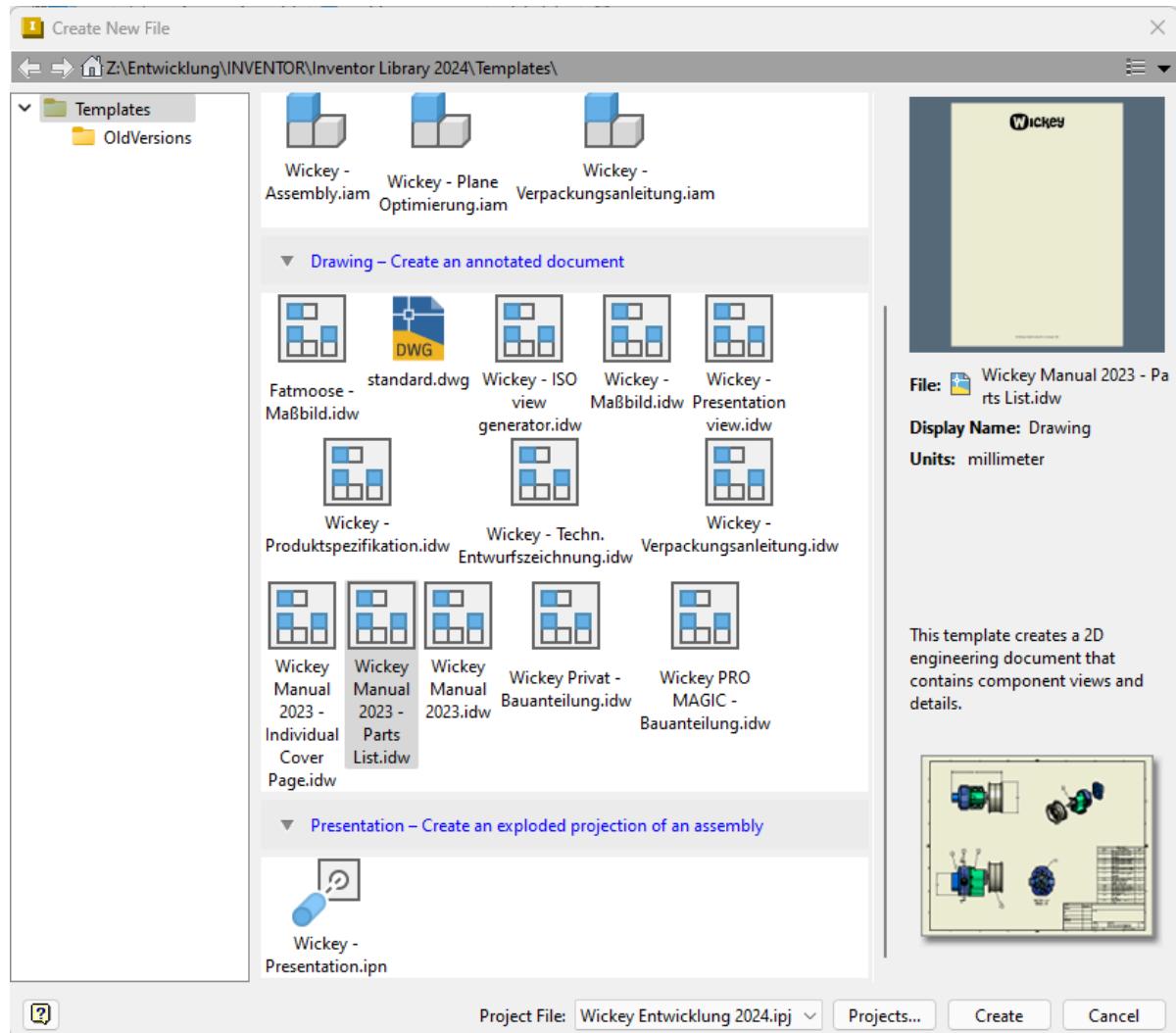
%USERPROFILE%\Desktop\Bauanleitungen\pdftk.exe %pdf1% %pdf2% %pdf3% %pdf4% %pdf5% %pdf6% %pdf7% %pdf8% %pdf9% %pdf10% %pdf11% %pdf12% %pdf13% %pdf14% %pdf15% %pdf16% %pdf17% %pdf18% %pdf19% %pdf20% %pdf21% %pdf22% %pdf23% %pdf24% %pdf25% cat output %out% compress

```

How to get there in Inventor

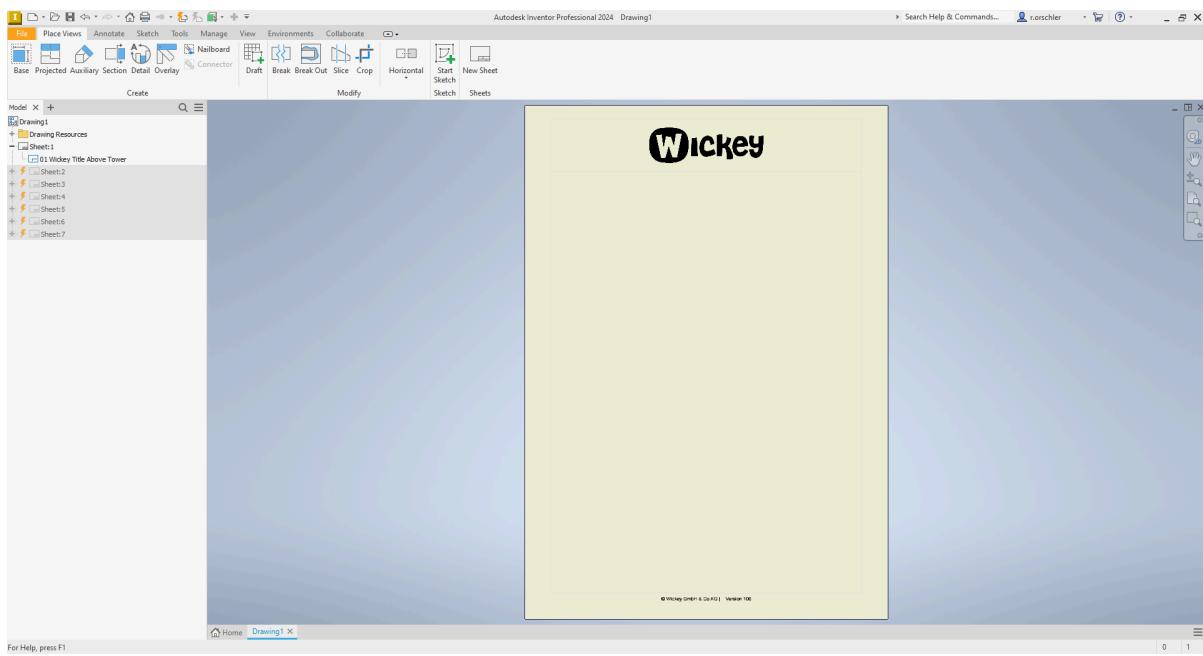
Parts List

Choose the marked template after pressing 'File -> New -> New'.

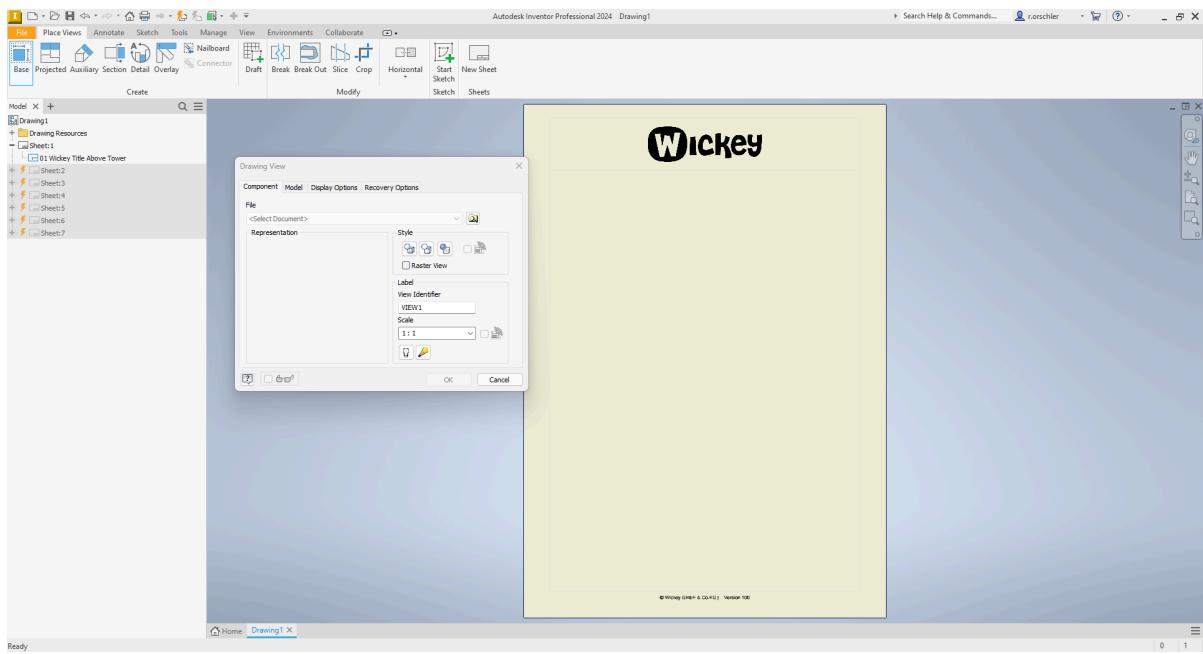


First Page: Overview Of The Tower

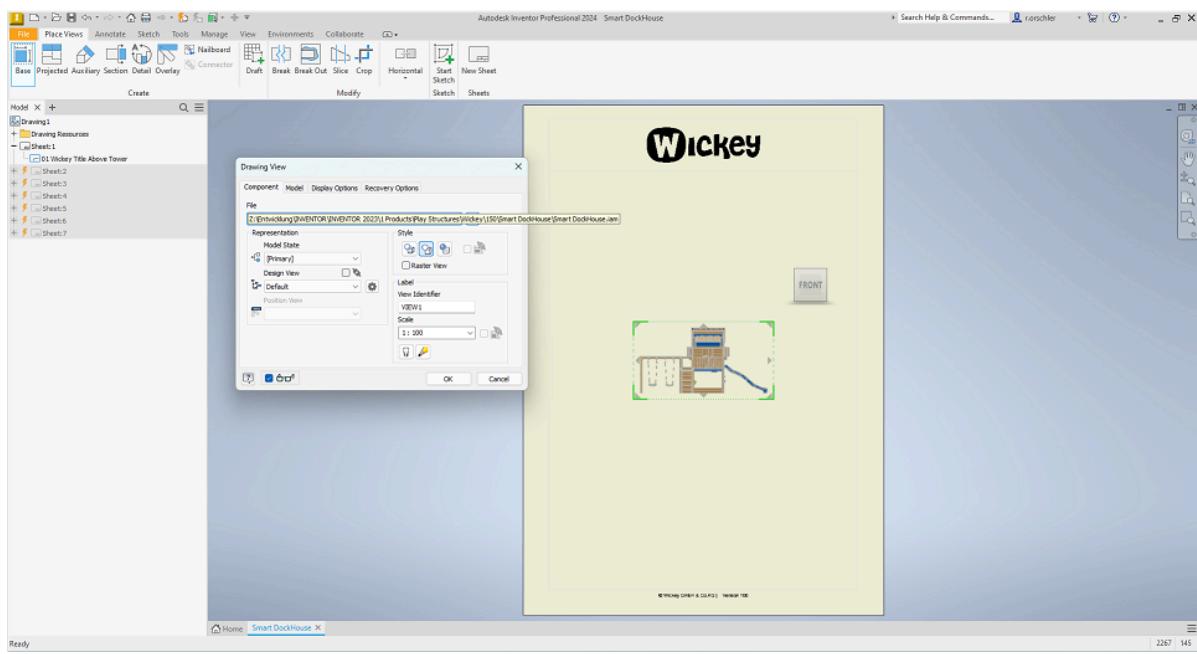
This would be what your action will lead you to.



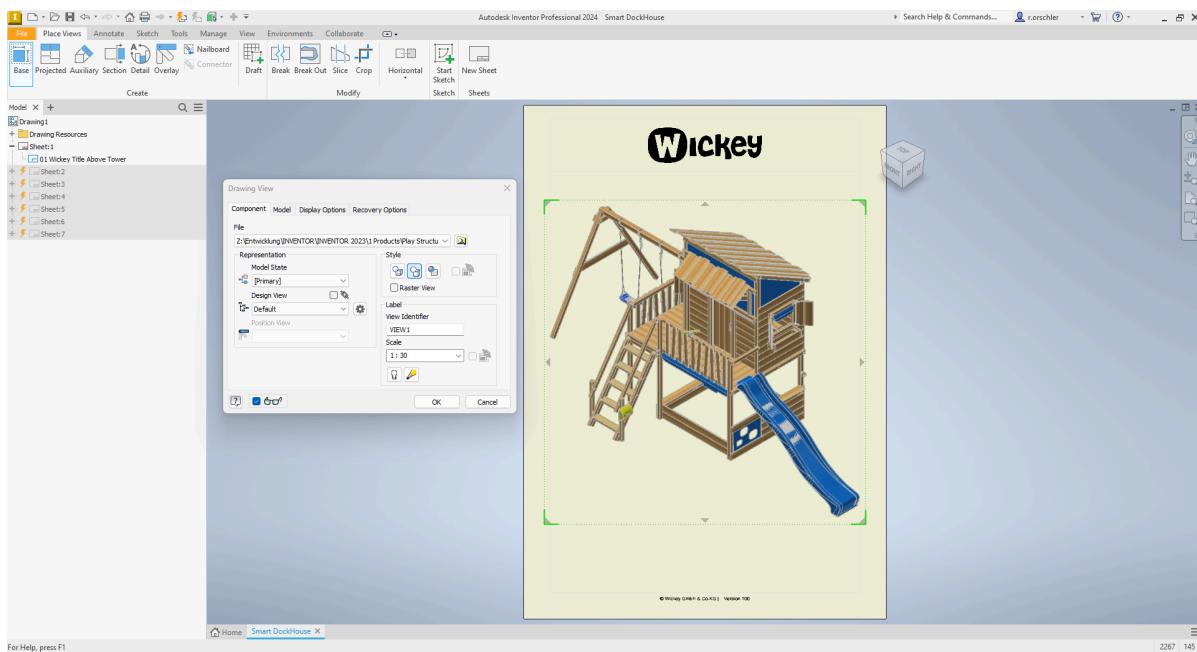
Now you see the basic sheet, where the main product has to be included. To get to the place to find the towers or the product it is all about, press **Base** (as marked here) in the upper left corner.



After browsing through your structure, find the playtower assembly.

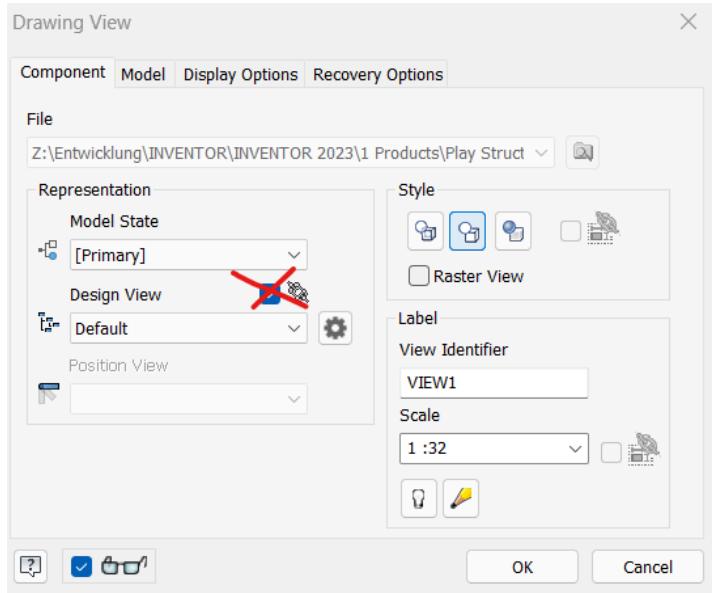


Make sure to use a proper scale filling out most of the page being still in the light gray border.

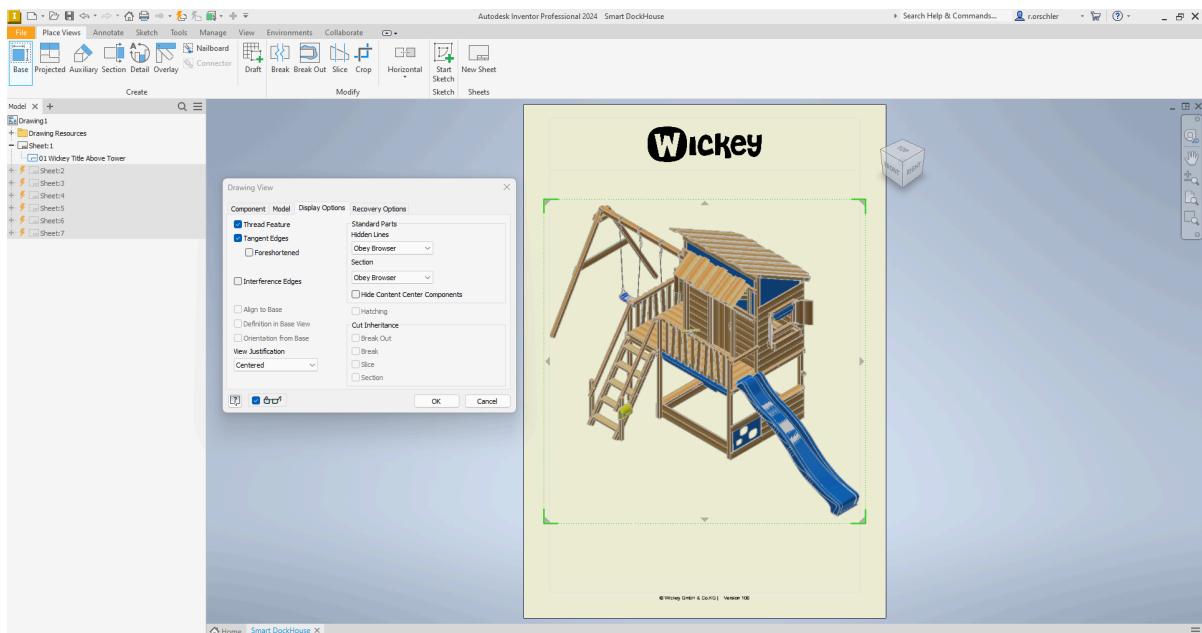


In general you should be aware of the rule to always use '**Tangend Edges**' when you are using an isometric view. When you use a straight **2D view**, do **not** use '**Tangend Edges**'.

Make sure that the empty square besides the styles is not checked. If it is checked, this means it will always search for the current status of the actual assembly file and will update itself. This easily will destroy your drawing. Just use it, if you really need to update the drawing.

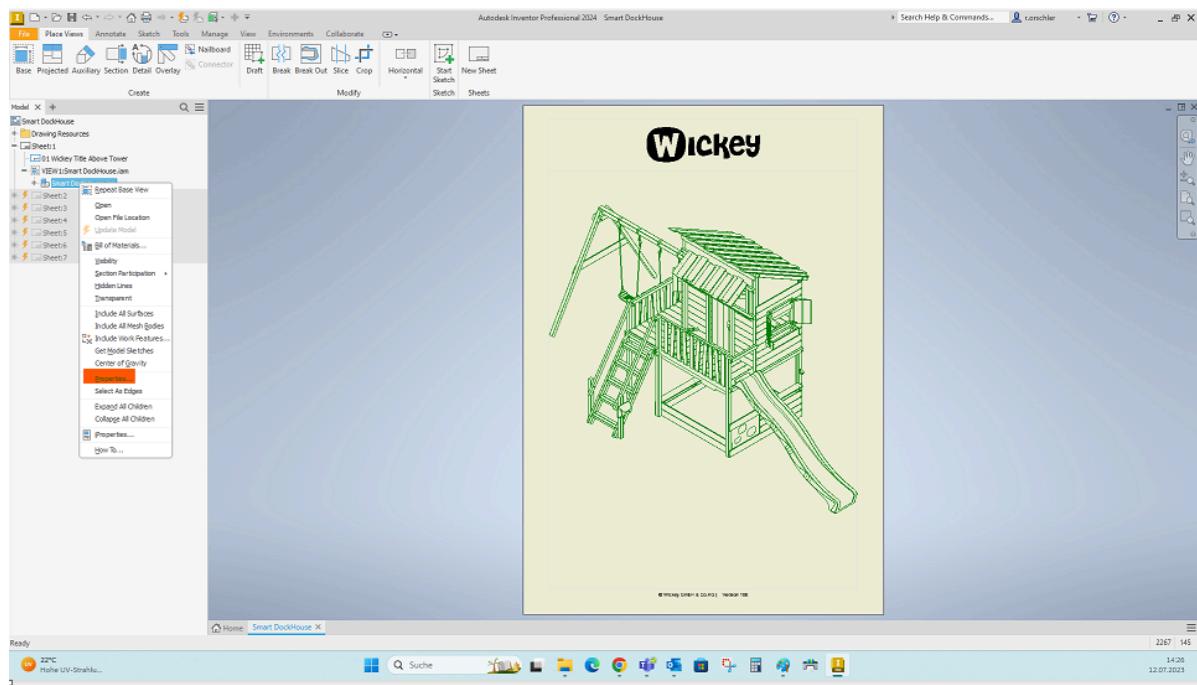


Press 'ok' and the view should appear in light gray.

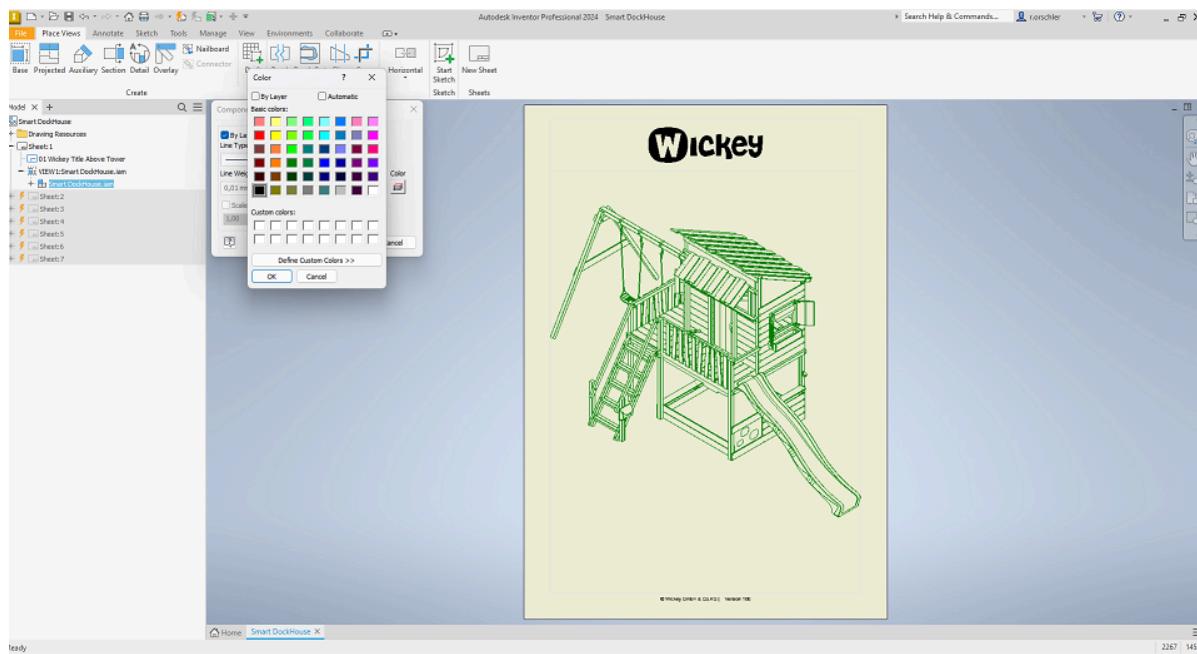


Line-Colour

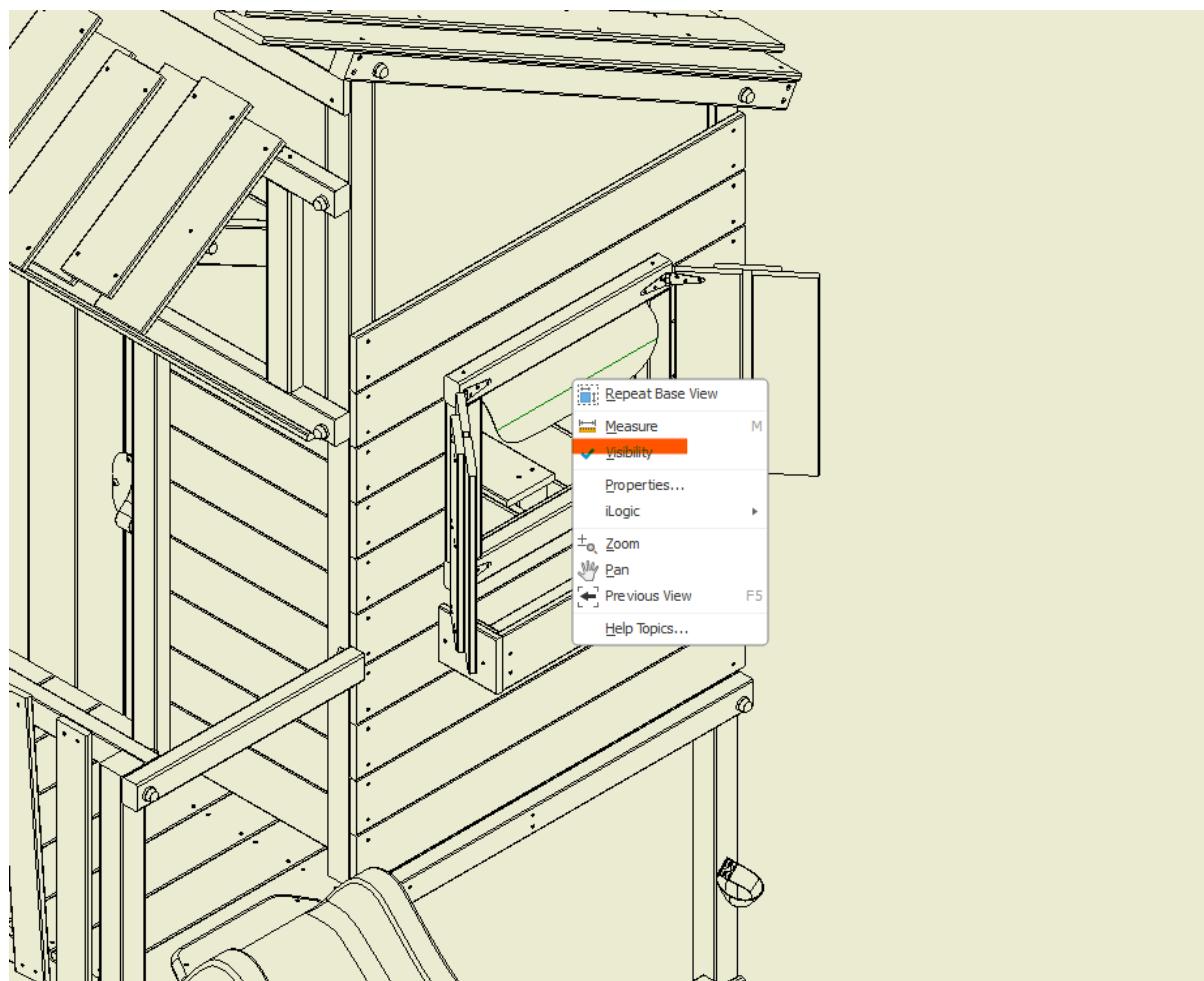
To paint the created view black, click on the structure on your left. Unfold the tree on your left, press the cross and press on the (from the View) used assembly with the **right mouse key** and then '**Properties**' will occur. Press on this.



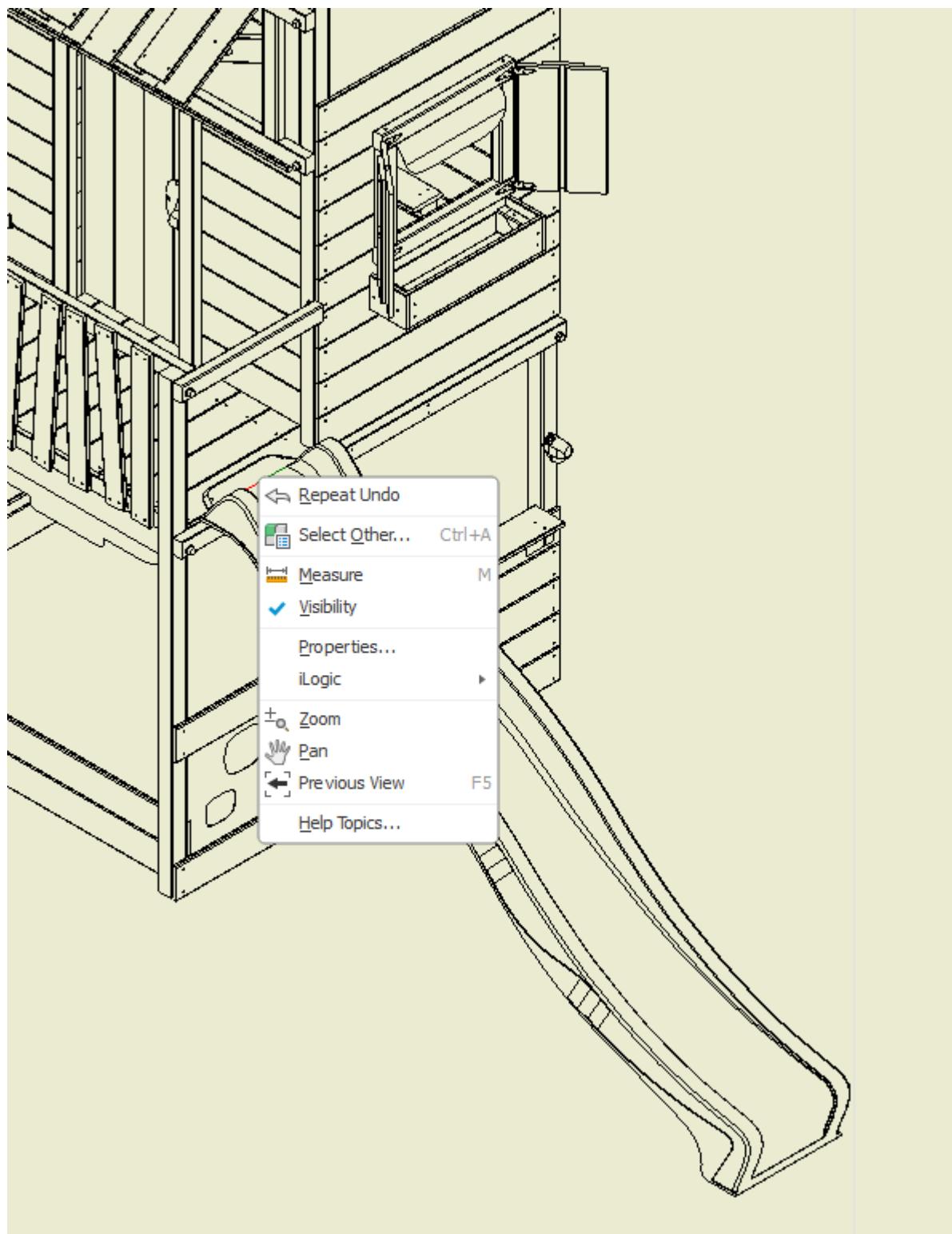
Choose '**black**'.



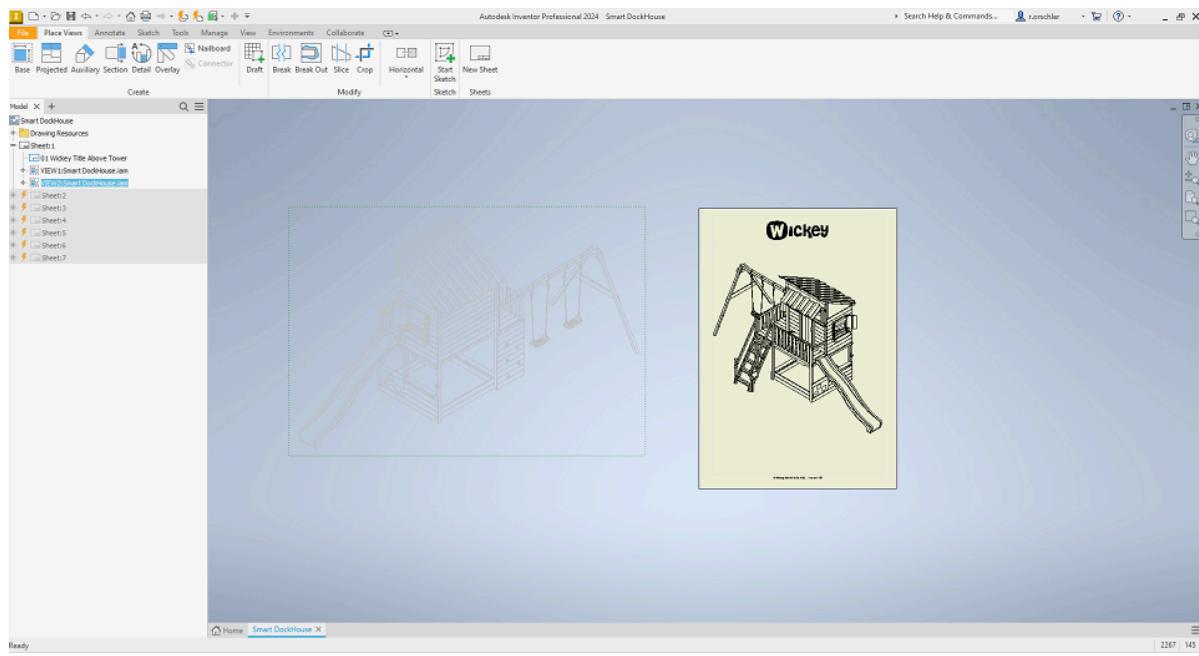
Now sometimes some lines occur which are not wanted. These for instance are the lines showing up on our canvas.



Click on unwanted lines with the right mouse button and press visibility. Usually these are lines in the middle of the canvas and lines in between the slides.

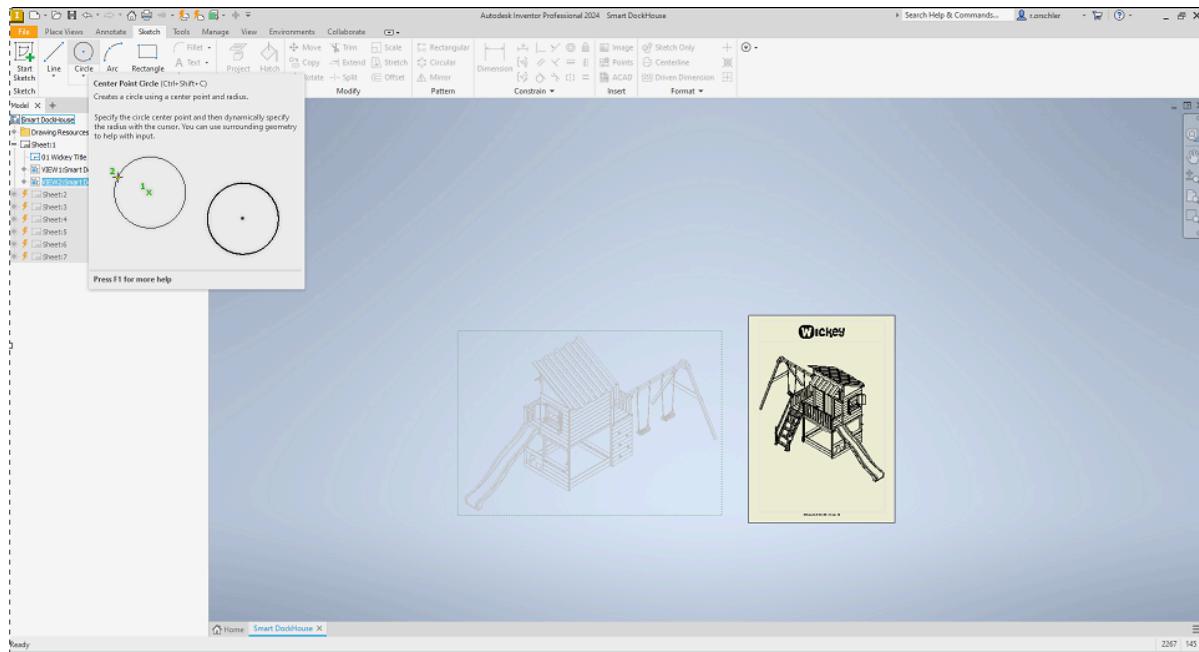


To implement further views, go to base and find yourself the tower again and place it on the side of the drawing. The outside space is your free space to prepare views. Especially when it is about Views in Detail from a different perspective as the one used on the main page.

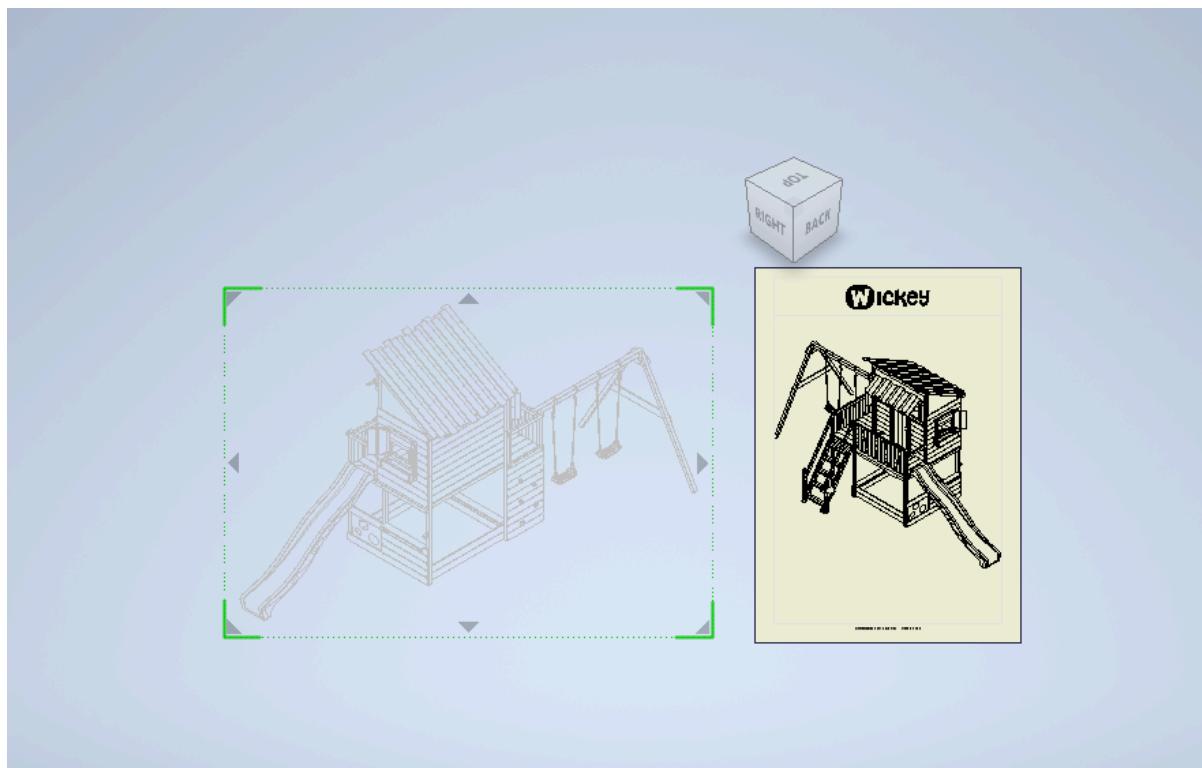


Break-Outs

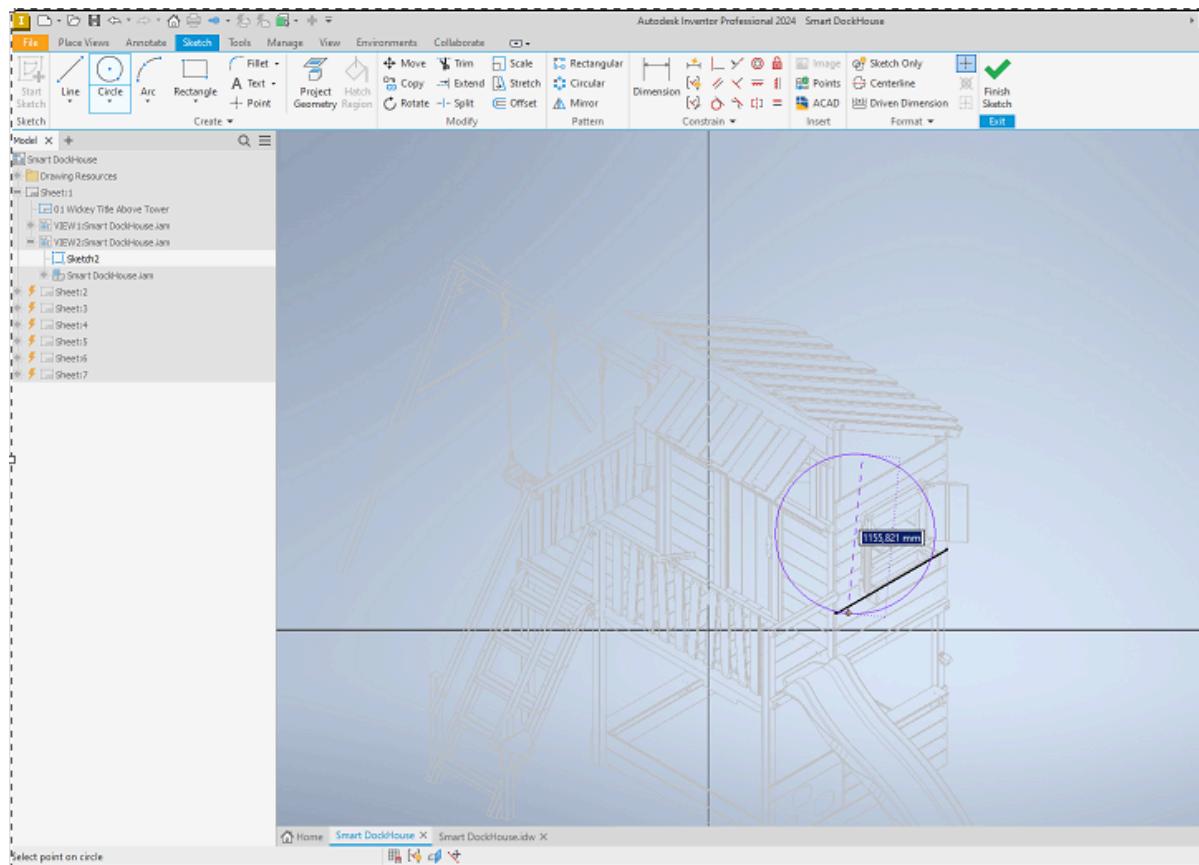
To reach areas which are covered and show them in context, we need to use so-called '**'Break-Outs'**'. Break-Outs need a **sketched profile** beforehand which is basically functioning as the shape you use to break through the view.



I just figured out that I need the tower at a different angle for my intended break-out to show the bench inside. To change this, take your cursor until the dotted frame of the created view appears. Double-click there. The dice will appear, making it possible to turn the view when you press on it.



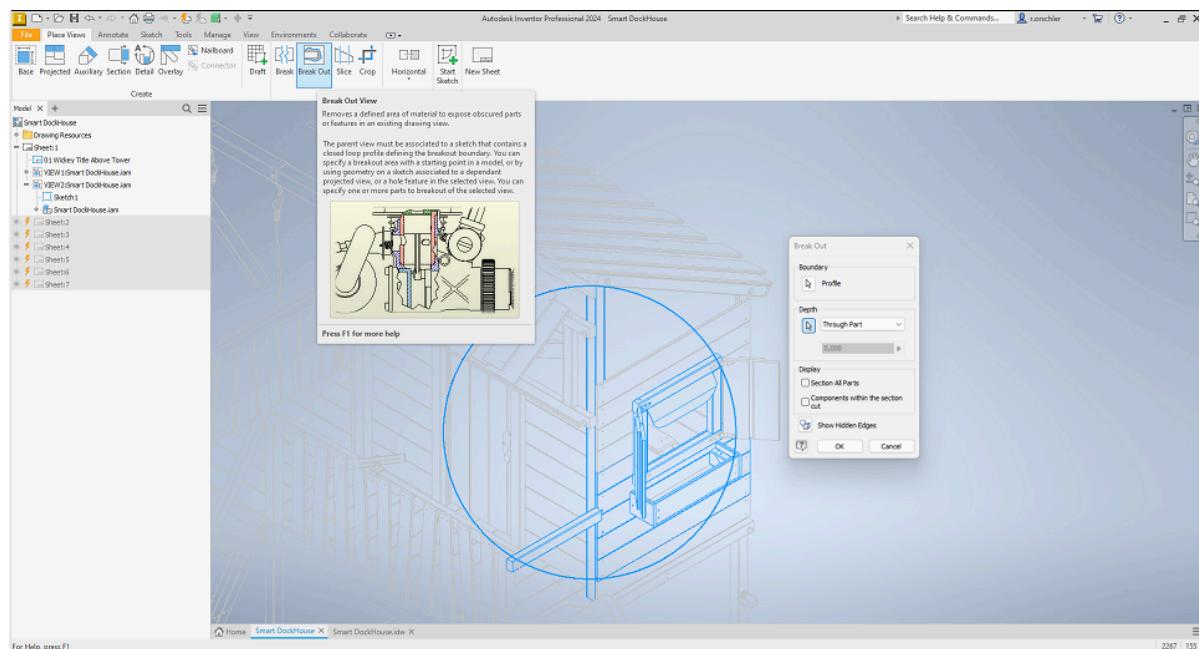
There are different bases, where to place the sketches. You can place the sketches on a view or you can place sketches non dependent on a view. Here you should make sure to place it, depending on the view. However, if you want to have non-dependent measurement ratios, you have to make sure to place your sketch independently on the page. Go to the Sketch-Tab and choose the circle.

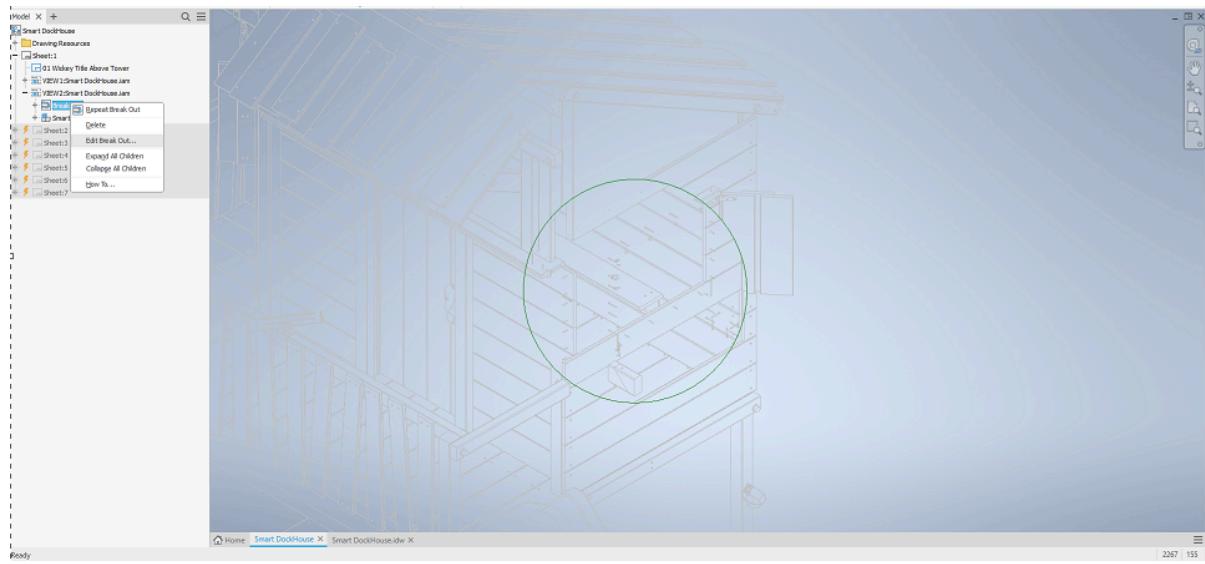


Now go back to the '**Place Views**'-Tab and choose '**Break-Out**'.

Select the already sketched circle as a profile as a boundary and choose '**Through Part**'.

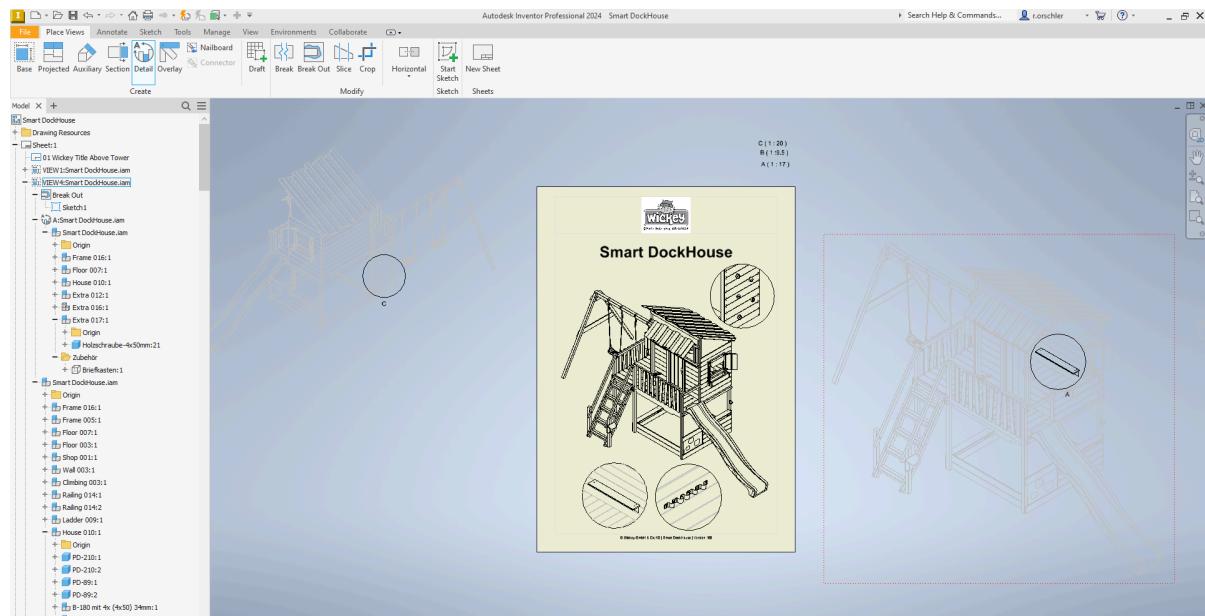
Now take the cursor and press on all parts that should disappear in the borders of the sketch. Often you need to revisit this command as sometimes you just can not choose all at once.





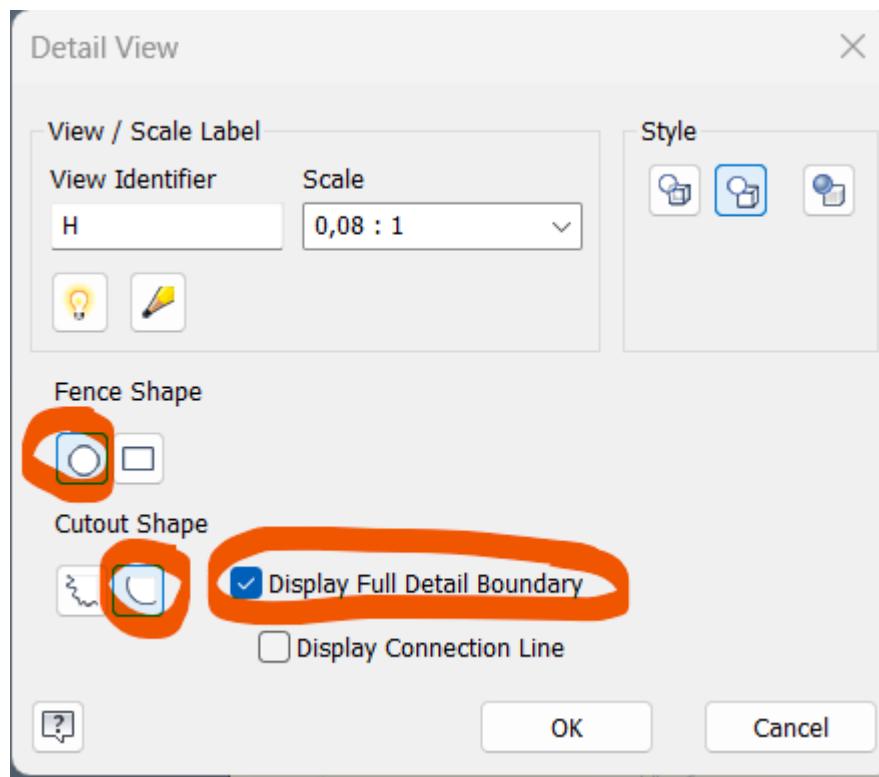
Look for the '**Break-Out**' occurring in the tree on your left. Press '**Edit Break Out**' with the **right mouse key** and choose the parts that are still in the way. Repeat as often as you need this.

Detail View

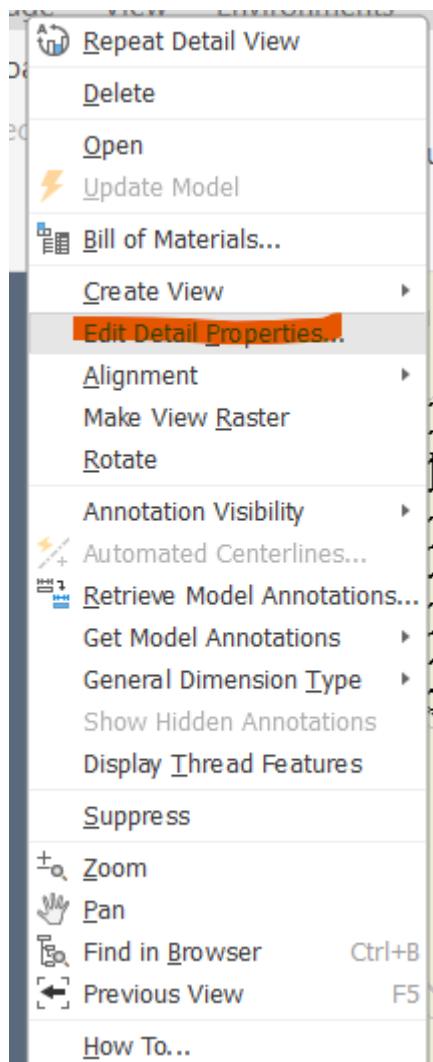


So now you created the Break-Out. Use this as a **Detail View** to show the bubbles you find above in the sheet and color the relevant modules black.

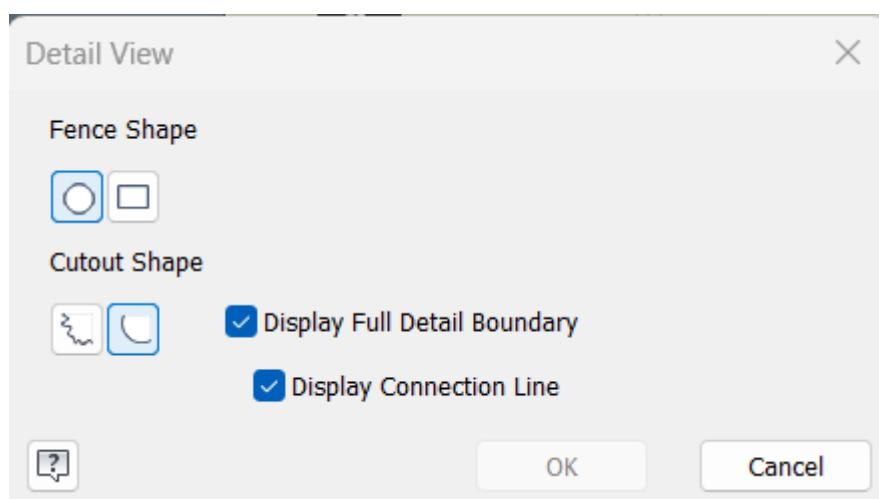
These should be the settings you need and you have to find the proper scale for yourself.



If you want to change the Settings of the Detailview. For instance when you forgot to check the **shape** and that the **full boundary** should be shown, hover above the Detail View until a dashed red frame occurs. Press the **right mouse button** and go to '**Edit Detail Properties**'.

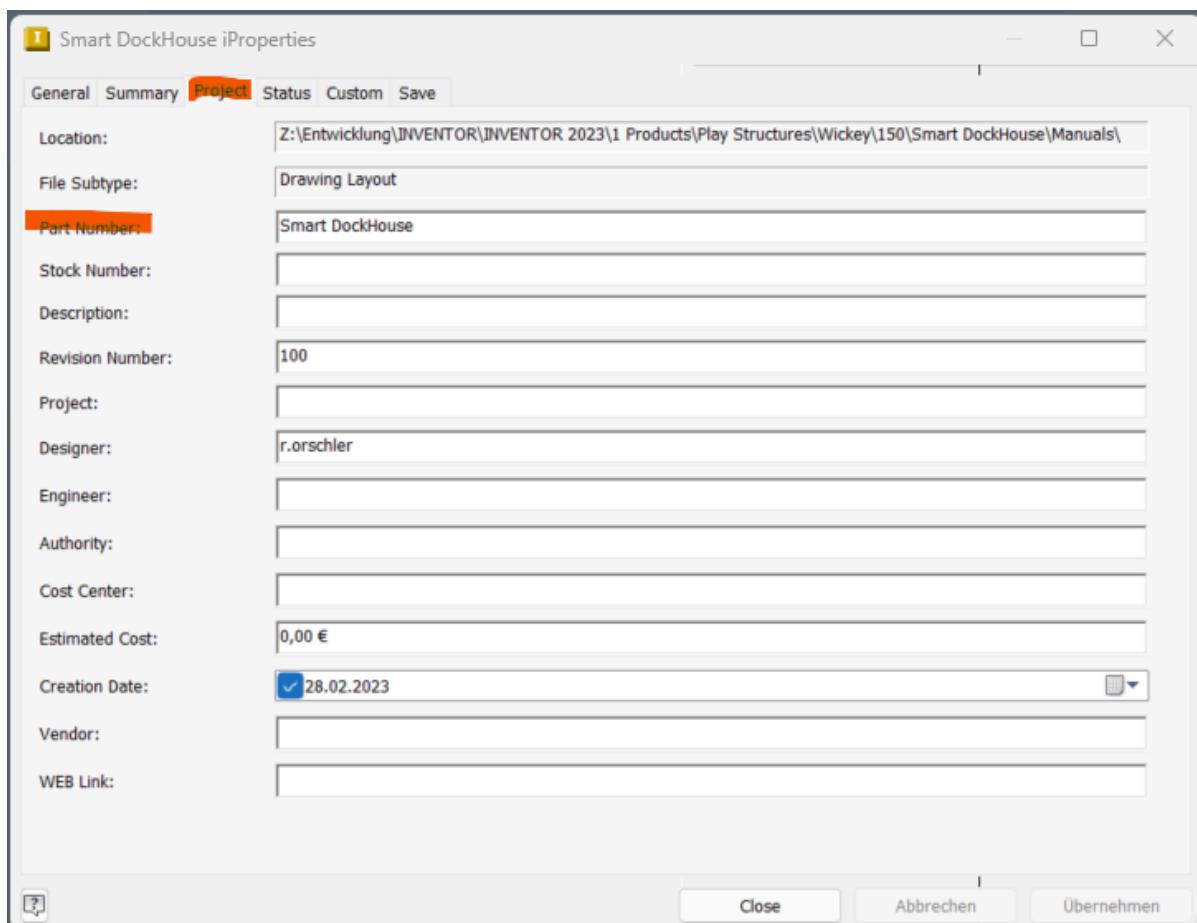
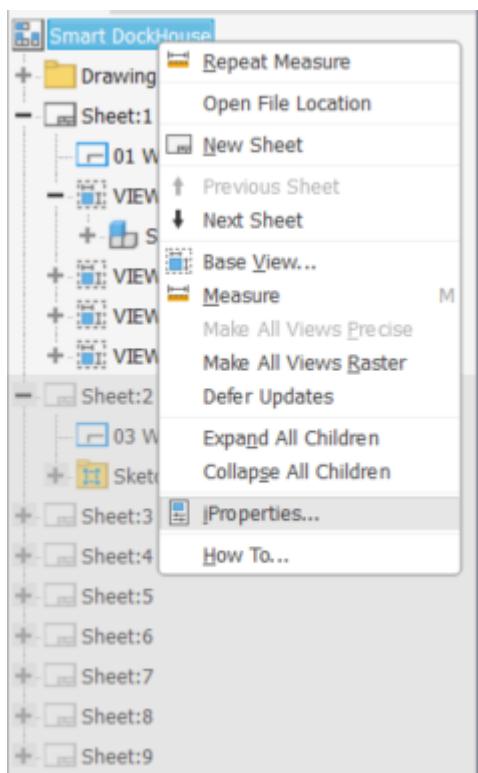


Then this menu here should pop up. In the manual itself you will often have connection lines as well but usually for the part list picture the Detail Views stand for themselves.



Changing Title Names

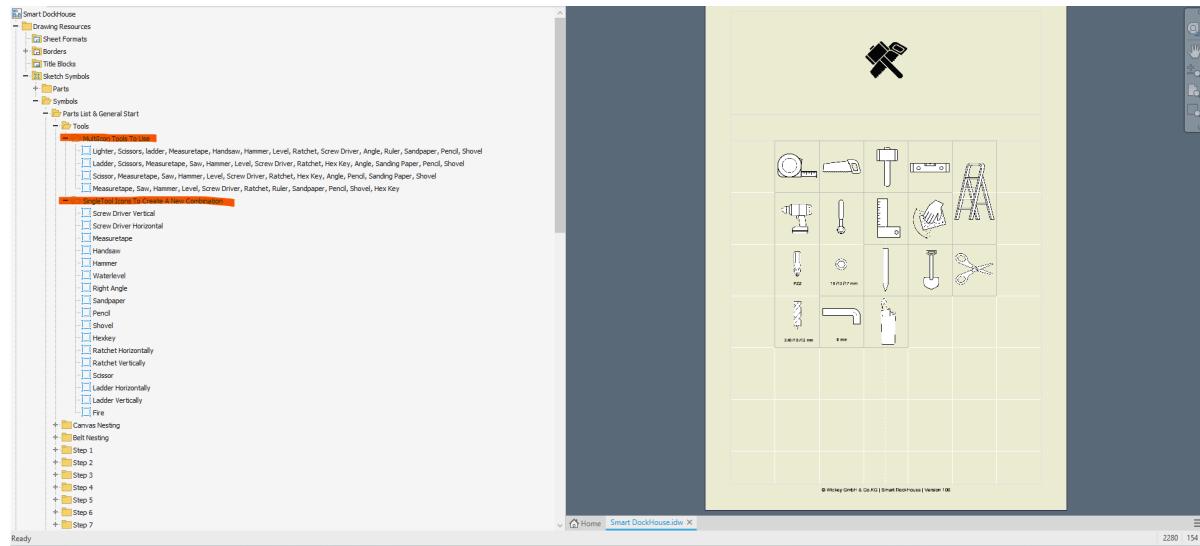
Another point is how you can change the title appearing in the -idw. Sometimes the file is saved under a name which occurs directly here and is not wanted. So therefore follow me along. Hover over the **main file name** and press the **right mouse key**. Choose the '**iProperties**' from this list.



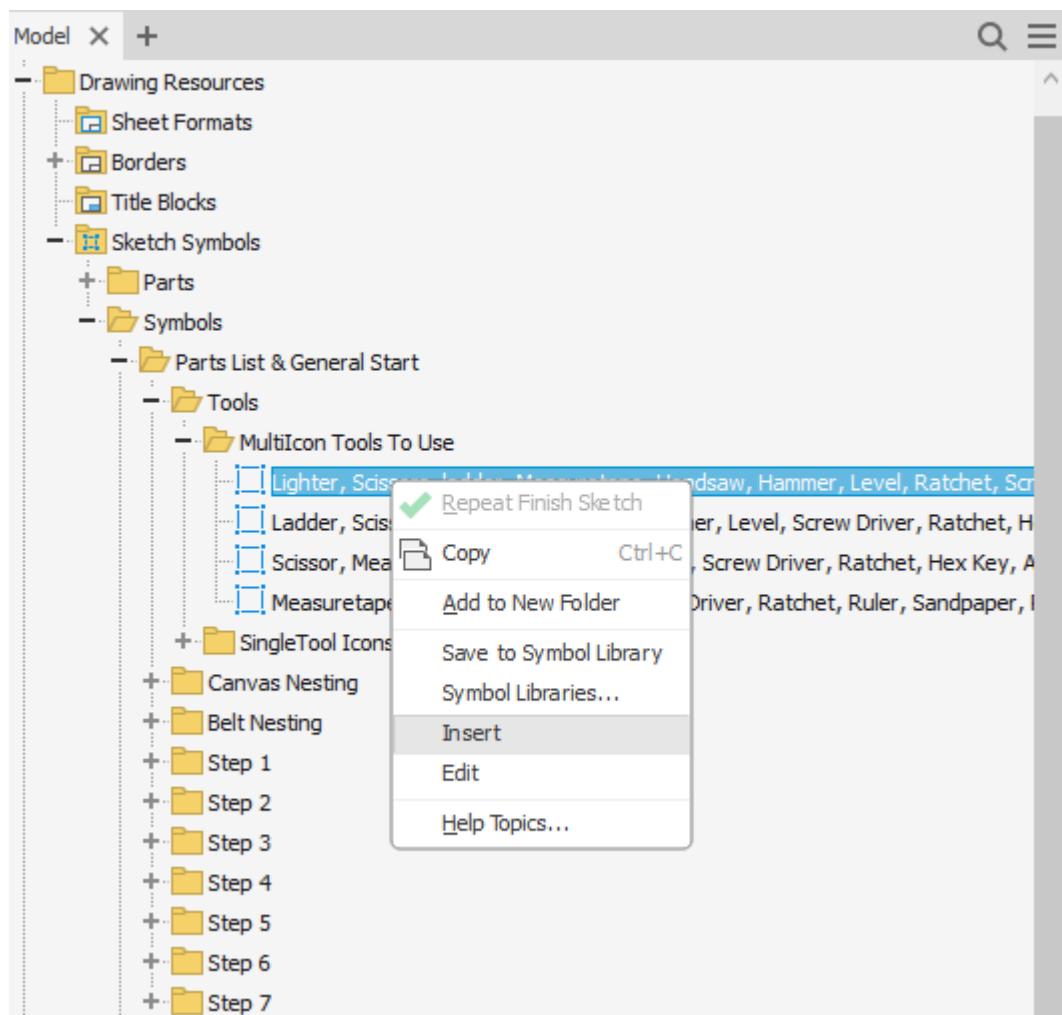
Now look for the Tab called '**Project**' and type in the title you need in the field beside '**Part Number**'.

Tools

For the tool-page, you need to open up the Symbols in your tree on the left side of Inventor.

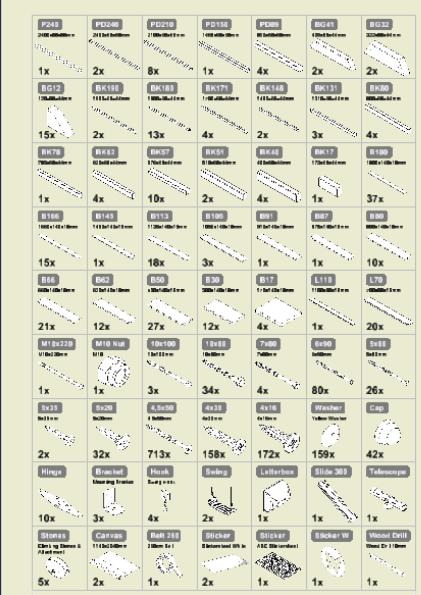
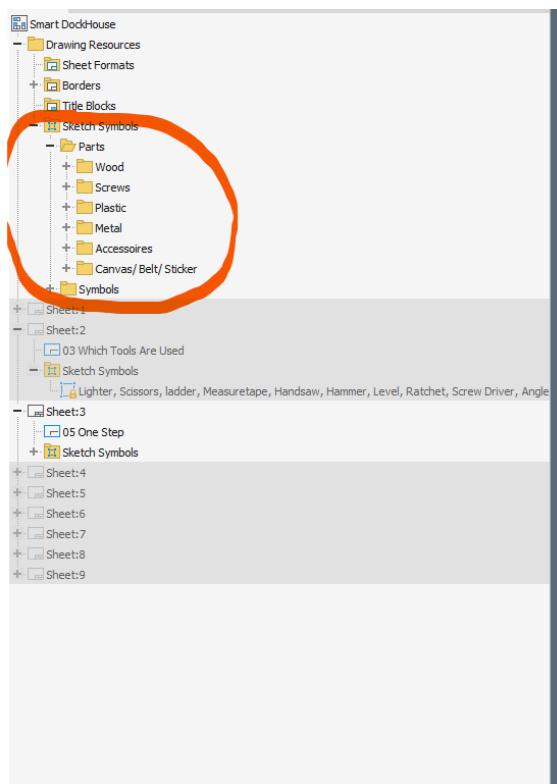


For general uses you will just have to use the **Multiconsymbols** as they already include a collection of the tools generally used. For instance towers with canvas need scissors. Very big towers need a ladder. If you have a bridgeband, you need fire to prevent the ends from fraying. Not all towers do have that so for those pick the icon that fits or use the Single-Tool-Icons and make your own the situation matching toolbox. Place the icons in the grid. Start above and keep it in the middle. So if you have an uneven quantity in the first row orient yourself at the dashes middle row.



To insert a symbol, use the right mouse button and press insert or double click on the symbol you intend to use.

Parts List



The screenshot shows the Smart DockHouse library interface. On the left, there's a tree view of categories: Smart DockHouse, Drawing Resources, Sheet Formats, Borders, Title Blocks, Sketch Symbols, Sheets:1, Sheets:2, Sheets:3, Sheets:4, Sheets:5, Sheets:6, Sheets:7, Sheets:8, and Sheets:9. The 'Sketch Symbols' category is expanded, showing sub-categories: Parts, Wood, Screws, Plastic, Metal, Accessoires, Canvas/Belt/Sticker, and Symbols. A red circle highlights the 'Sketch Symbols' category. To the right is a large grid of sketch symbols, each with a small icon and a label like 'P249', 'BG41', or 'BG32' followed by a quantity like '1x', '2x', etc.

Here you find the symbols you need to insert for the parts list. They are sorted here into wood parts, screws, plastic parts, metal parts, accessoires and canvas sheets. You will have to search your way through the library to find the necessary parts.

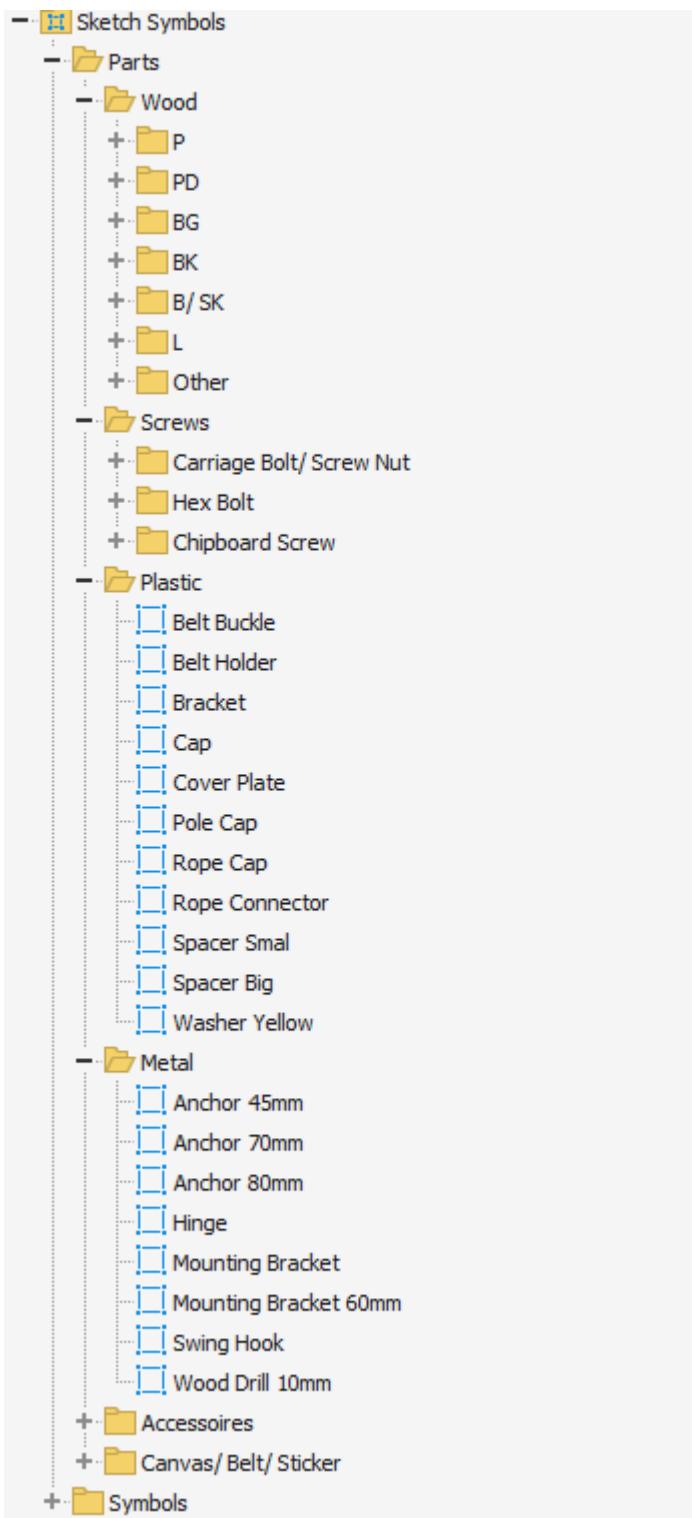
Sorting Bill Of Materials

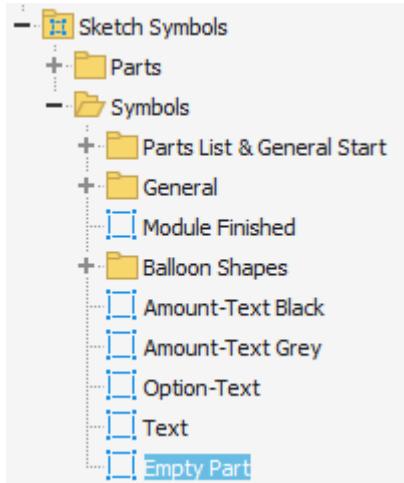
It helps to sort the **Bill Of Materials** in your assembly to directly have the right order in the parts list. There you can change the number in the **item-column** and follow the previous order by diameter and length I already explained above. Double click on the square to change the number. It will occur in blue after it has been changed manually.

	BOM Structure	Unit QTY	Item	QTY	Stock Number	Part Number	Thumbnail	Description
▶	Normal	Each	1	1	696240	P240		Holz - P
	Normal	Each	2	2	696301	PD240		Holz - PD
	Normal	Each	3	8	696300	PD210		Holz - PD
	Normal	Each	4	1	696303	PD150		Holz - PD
	Normal	Each	5	4	696309	PD89		Holz - PD

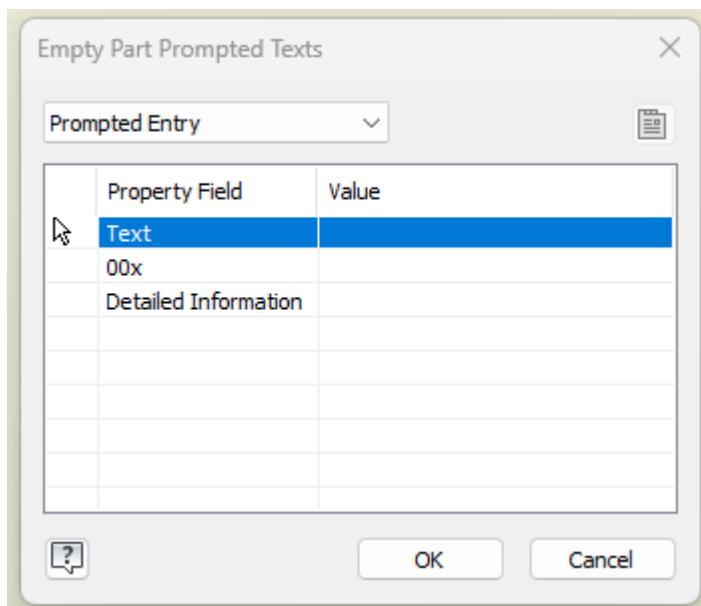
Create Own Symbol

In hopefully random occasions you will need to create an own symbol using an **empty part** (symbol template is called like this).

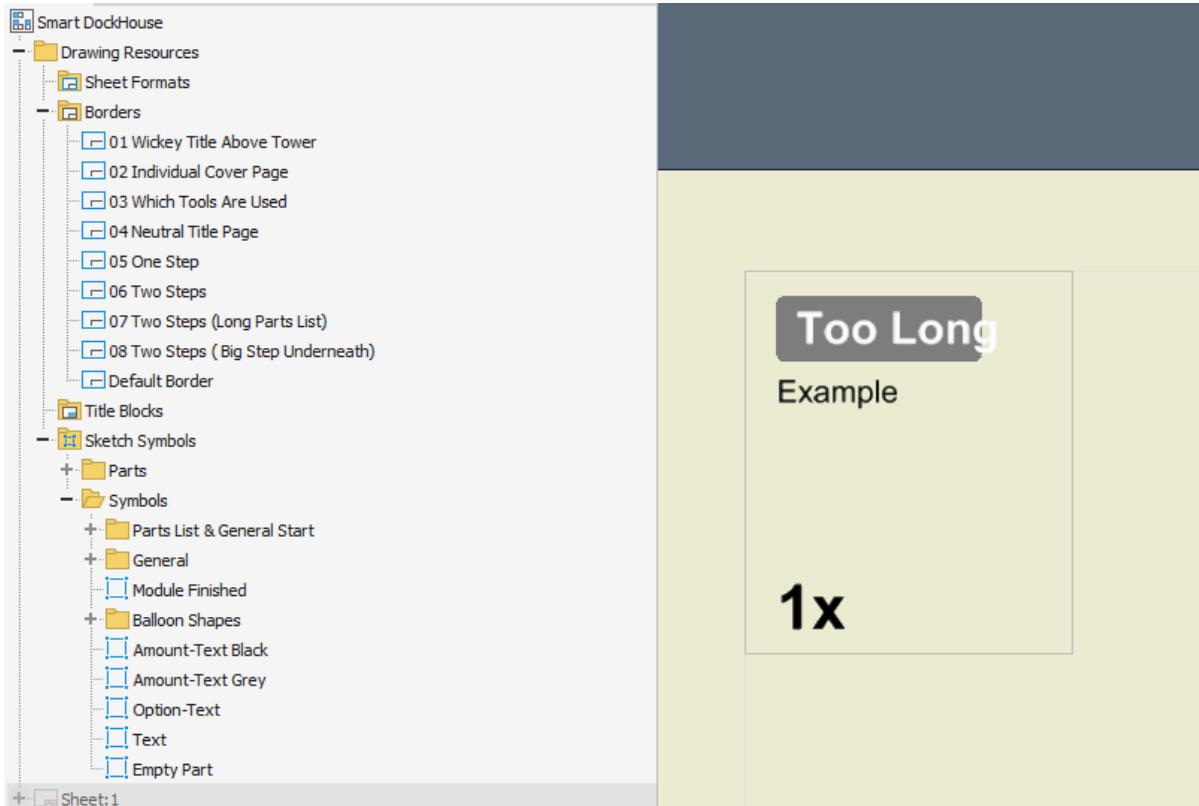




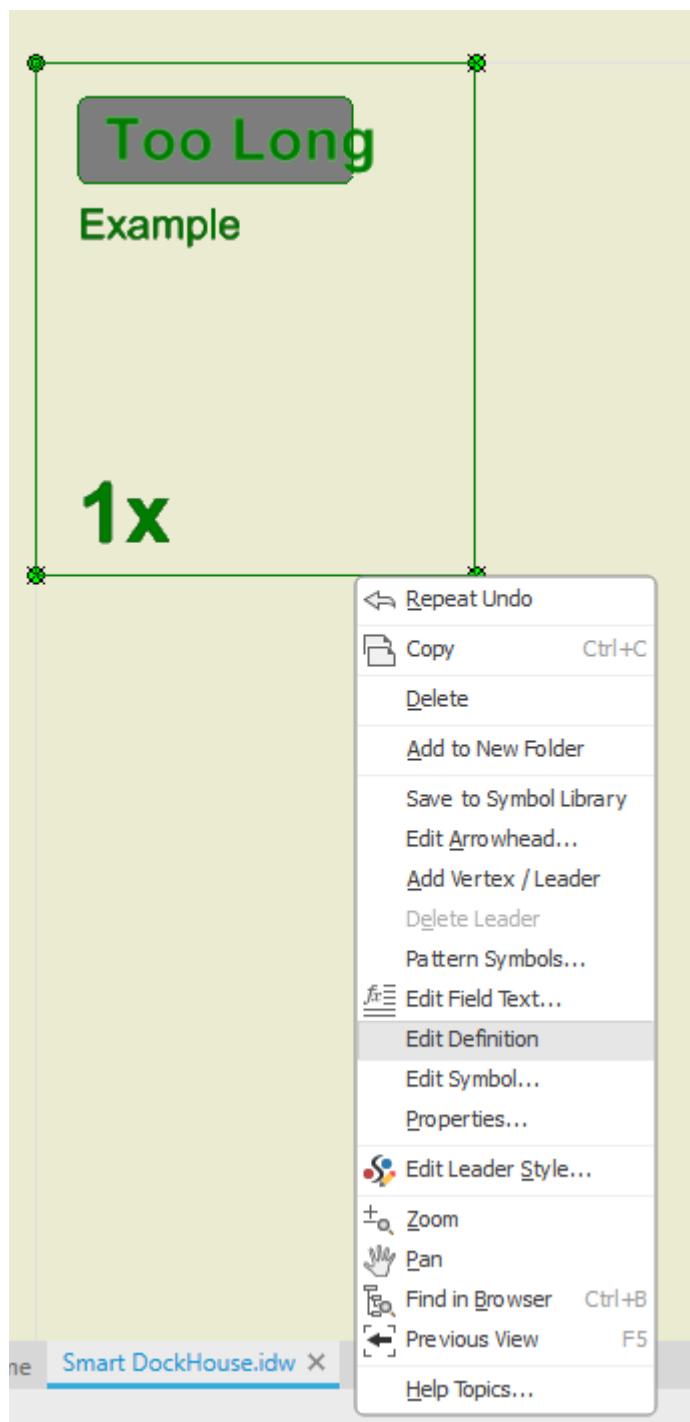
If you insert an **empty part** you need to fill in the following properties. '**Text**' stands for the name which will be occurring above the gray background. '**00x**' is the spot where you put in the amount which is used of this part followed with a 'x'. The '**Detailed Information**' is for the description underneath the title. This is especially useful when the title is not enough or to emphasize sizes for canvases.

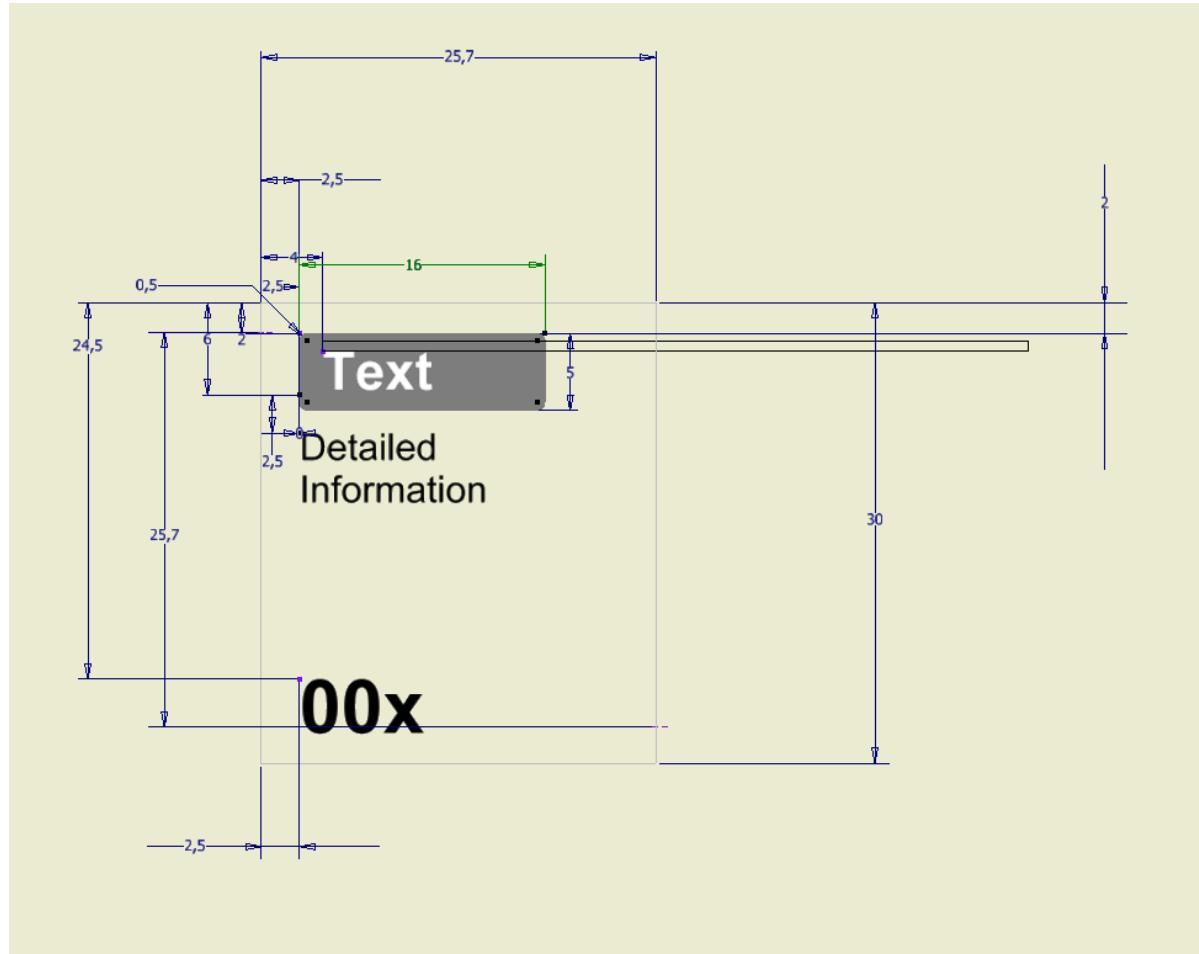


Due to the defined gray background the title can sometimes be longer than the gray field. Then you have to edit the definition and **save what you changed under another name!**



To change the symbol click on it and press the right mouse button and choose '**Edit Definition**'.



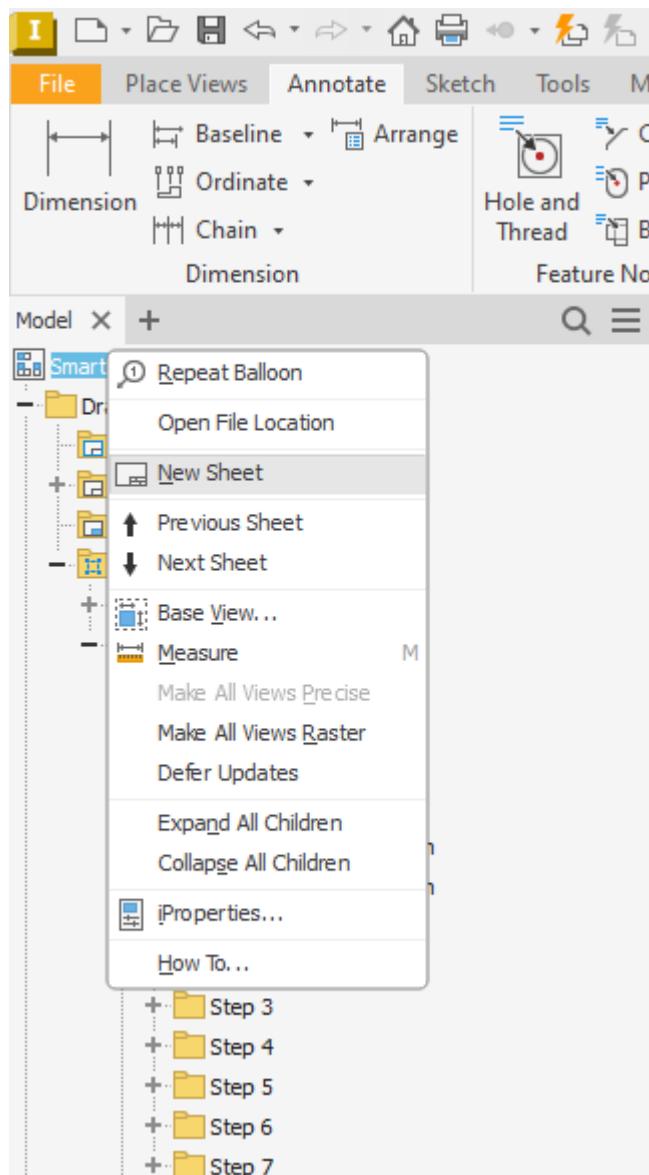


Change the length here, however you need it and as mentioned [save it as another part giving it another name](#). After this you will need to insert the newly saved symbol.

Be aware that not all parts are mentioned in the Bill Of Materials of the main assembly-sticker sheets and drills do not occur in the assembly. So make sure if you need to add them in your case.

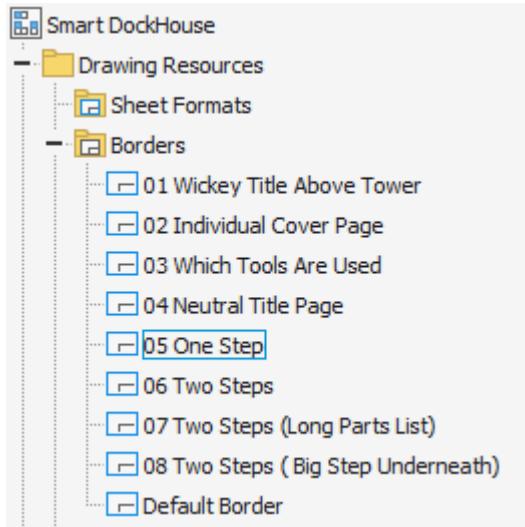
New Sheet

In the case that you need an extra sheet as you got plenty of parts that need to be listed and they do not fit on one page, do the following. Click on the whole document (upper file in the tree is meant here) with the **right mouse button** and choose '**New Sheet**'.

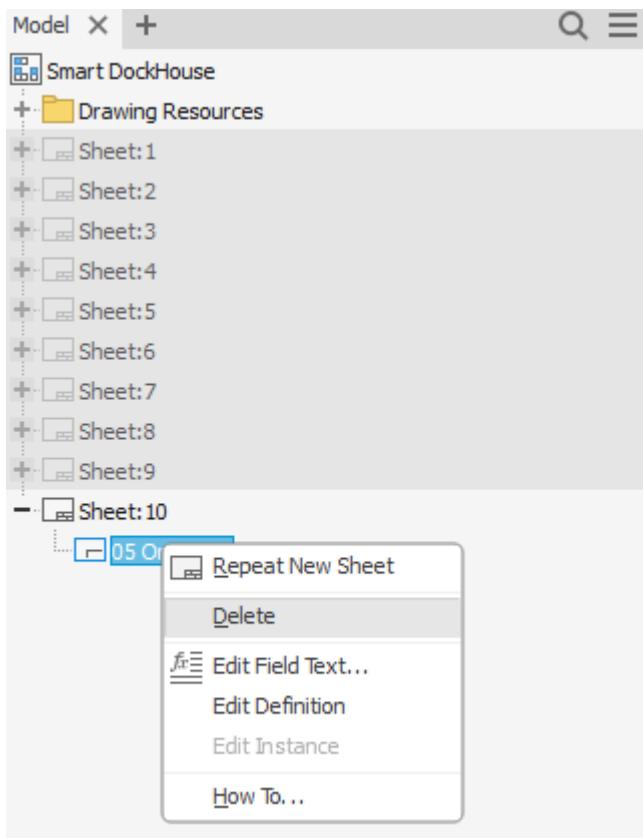


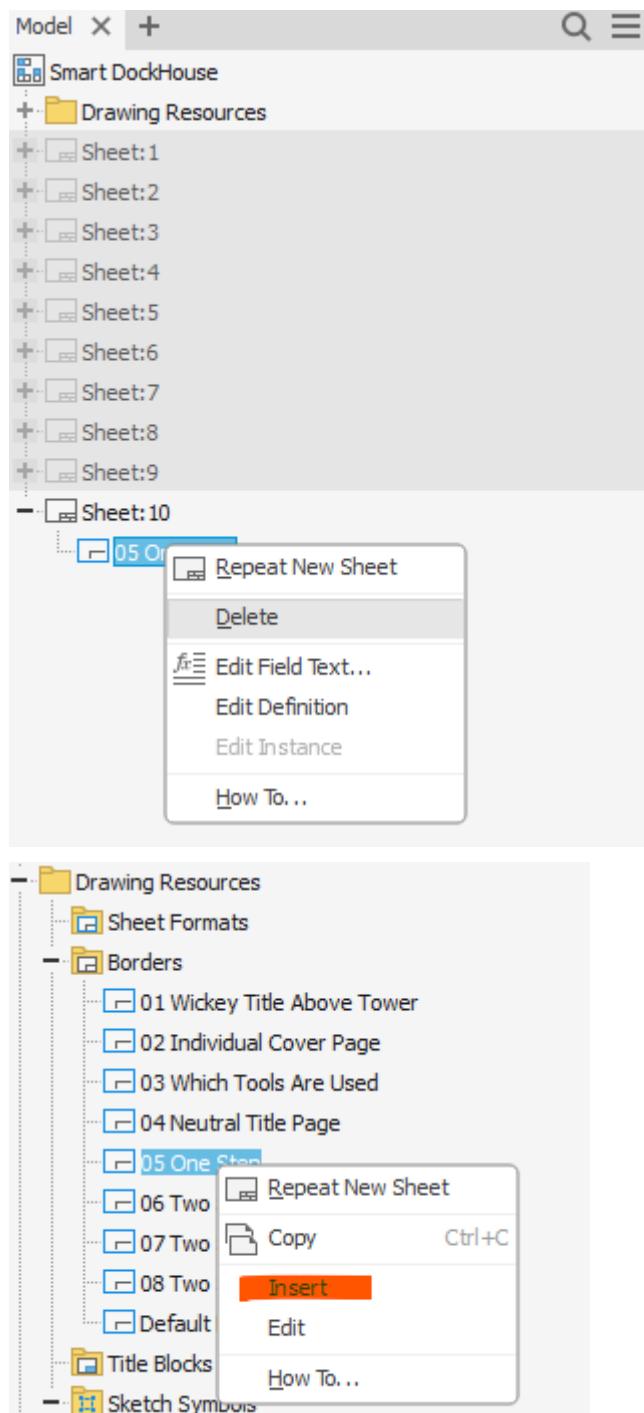
Changing Borders

Then you have to make sure to have the right border. For the parts list it should be the one called '05 One Step'. The border is kind of the layout of the sheet it defines borders and has some additional text about the module name and the version predefined.



To change borders of an existing sheet you have to go to the sheet by double clicking on it and delete the border it has. After this you need to insert the border from the border-folder above.

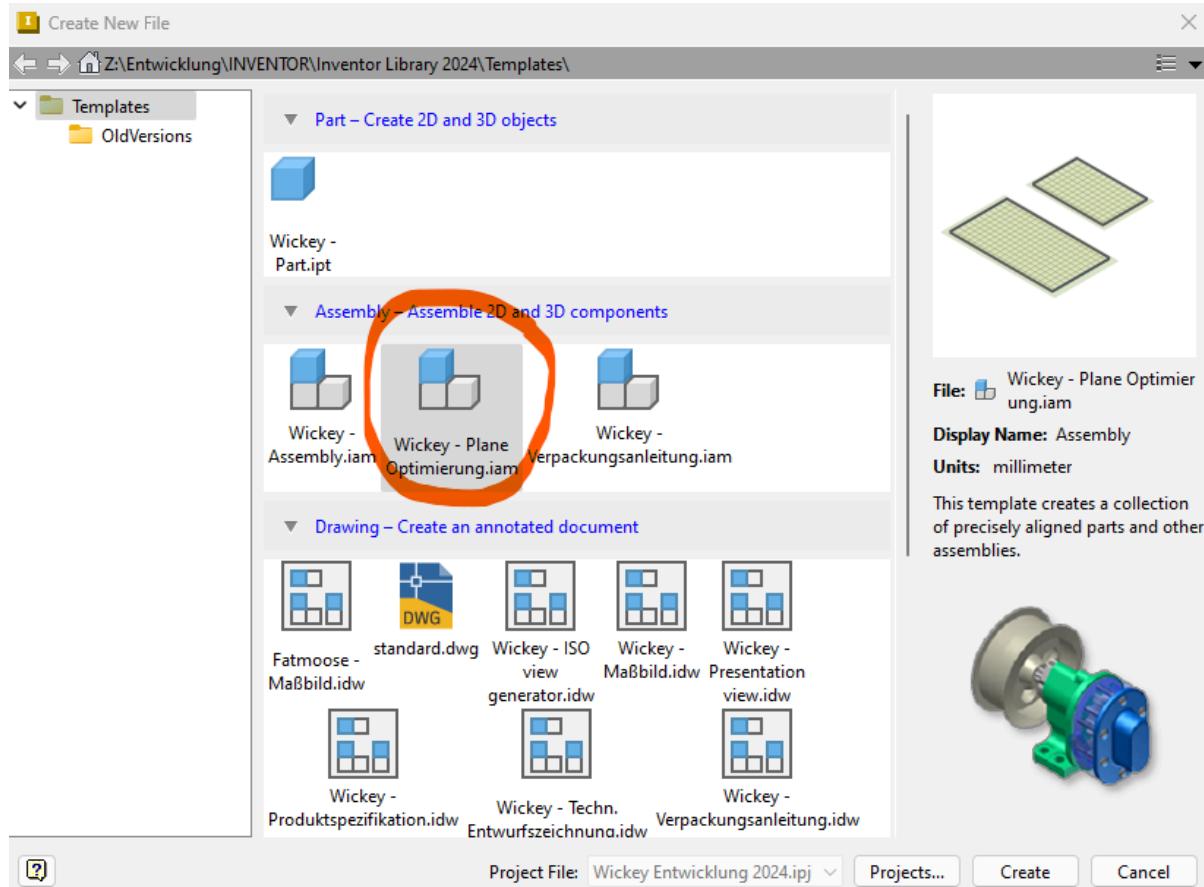




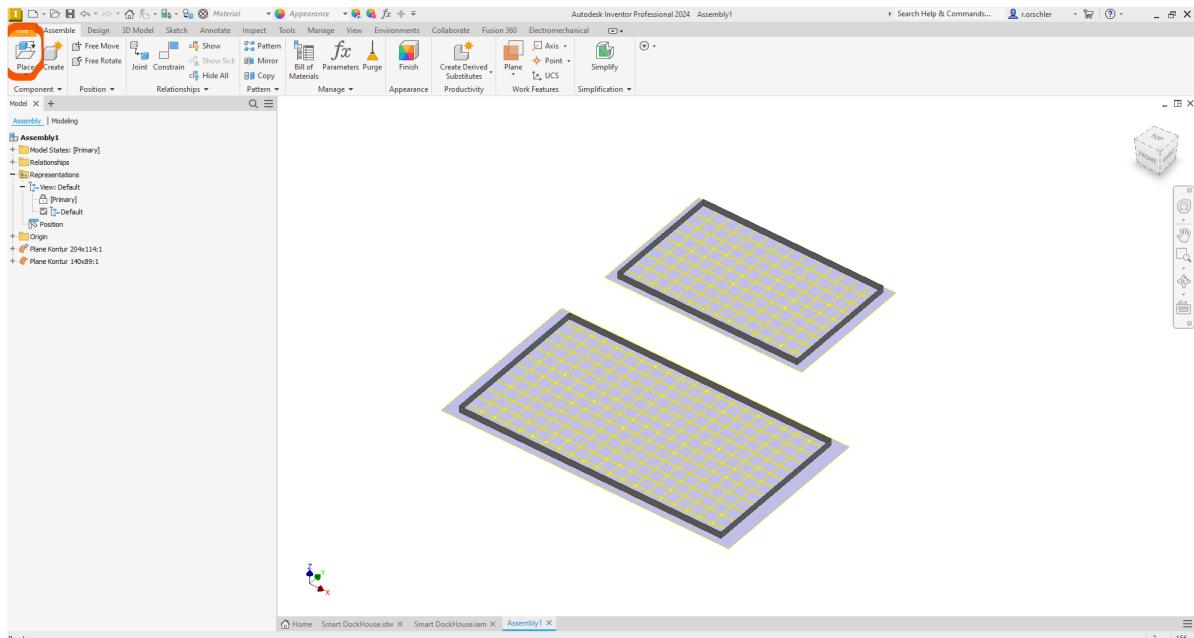
Depending what you need you can choose the fitting border.
But this will be the case probably for the module-manuals themselves as you will vary between one step or two steps and different step sizes per page.

Canvas Distribution

After having placed all used parts, it is time to make the canvas distribution. So open the template 'Wickey - Plane Optimierung.iam'.



This template gives you the two frames of our two sold canvas sizes. There you need to place flat patterns of the canvas-cut-outs.



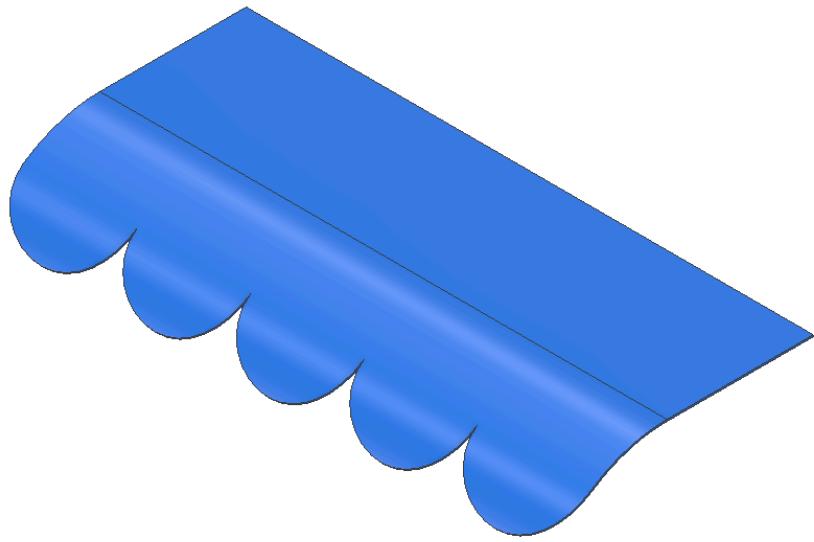
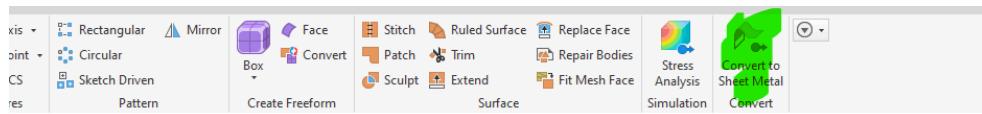
Press '**Place**' and find your files. If they are plain and straight you can just add them. However some canvases come bent and need to be straightened. Therefore there are

two different commands and it depends how the file is constructed and how to make a flat part out of it.

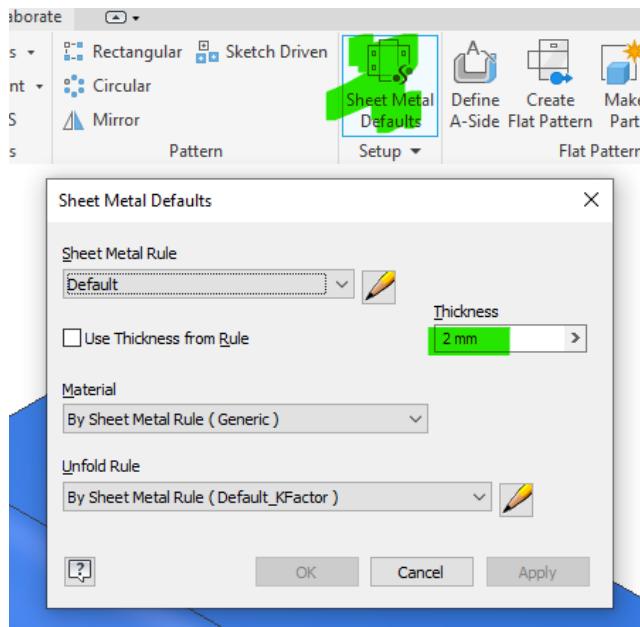
Making Canvas Flat

Sheet-Metal

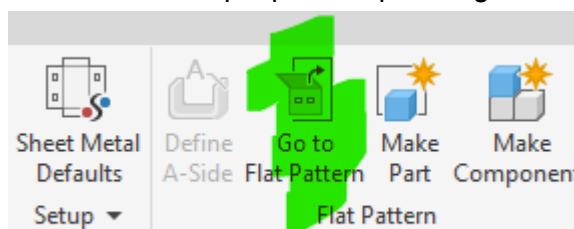
Open the relevant canvas-.prt-file of and if you are lucky it is convertible to a sheet-metal part.



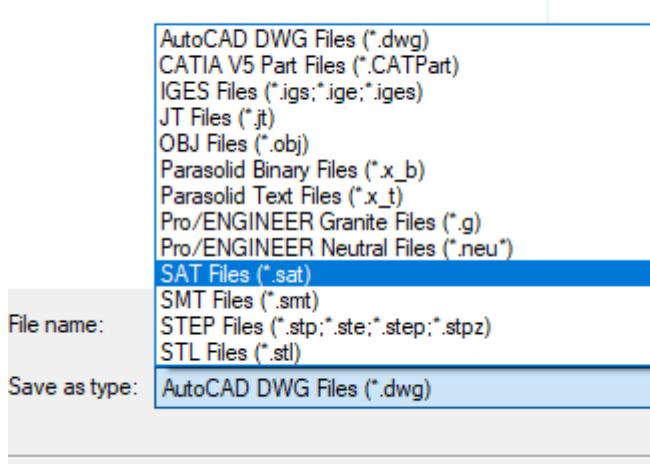
There you can control if the thickness is 2mm.



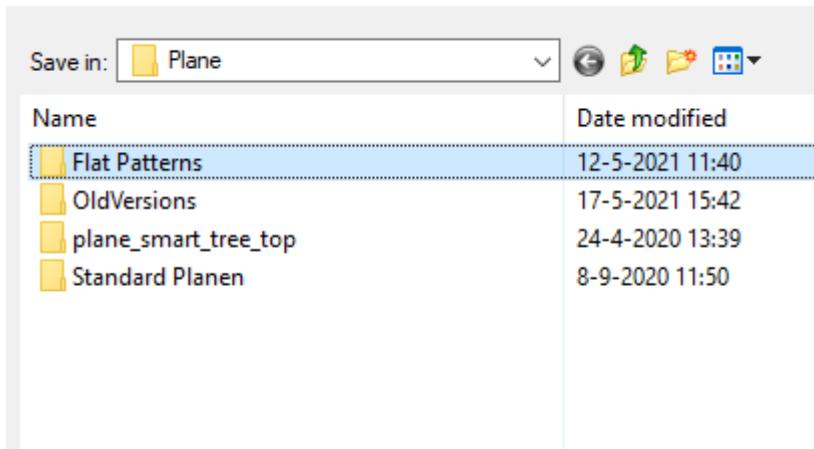
Then if it is a simple pattern, pressing "Create Flat Pattern" should work.



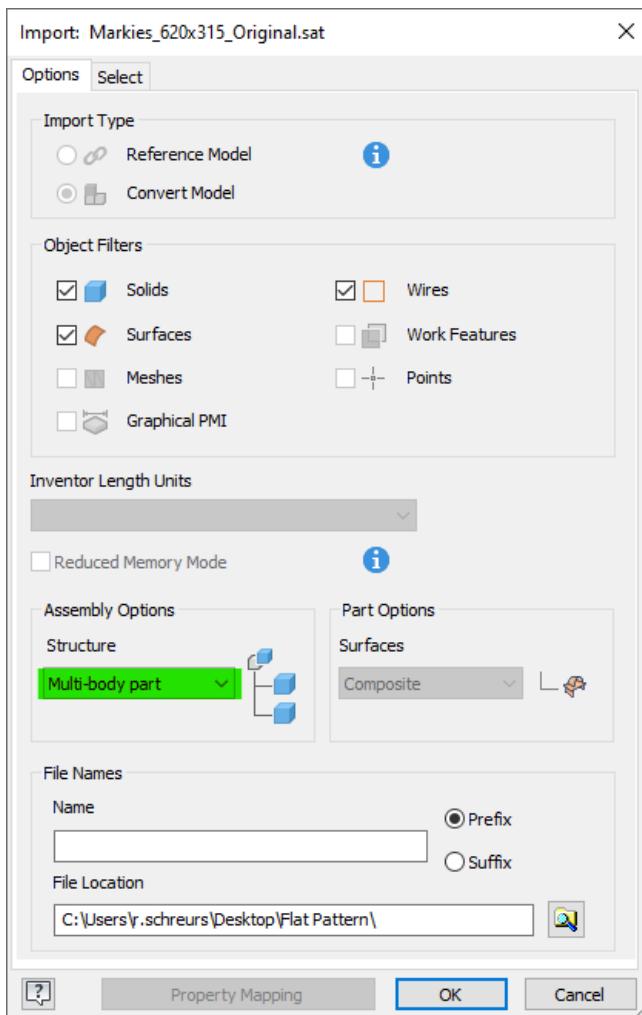
After having unfolded the canvas you need to save the flat pattern as a **.sat-file**. Therefore follow this path 'File → Export → CAD'. Then choose 'SAT File' in the window.



Save the file in a folder called '**Flat Patterns**'.

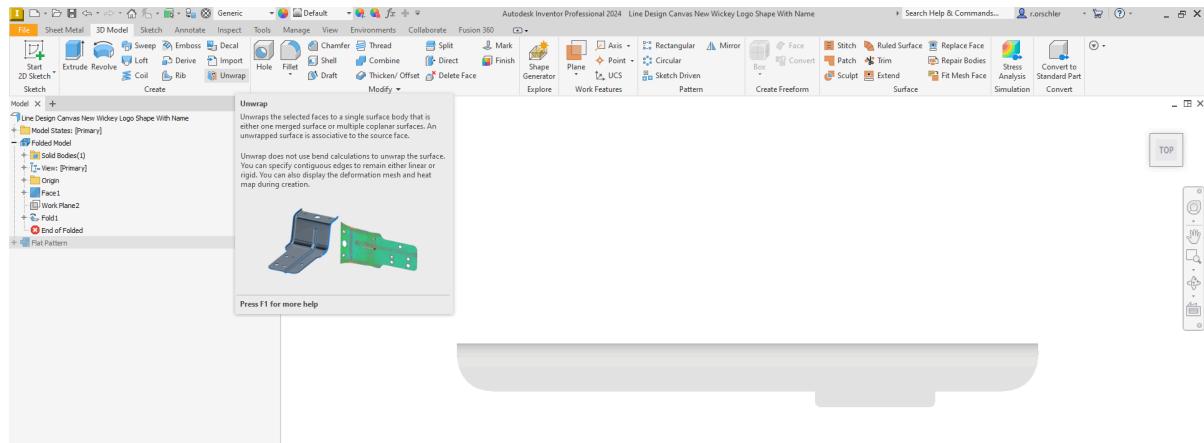


To import the sat-file, mind the settings you see below. Make sure that the '**Multi-Body Part**' is used in the settings as it is marked.

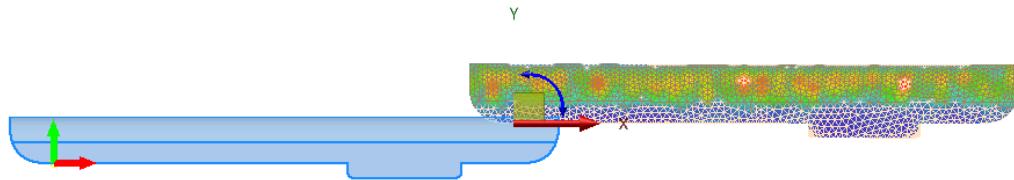


Unwrap

If you have trouble working with sheet metal, there is the possibility to work with the **unwrap-command** instead.

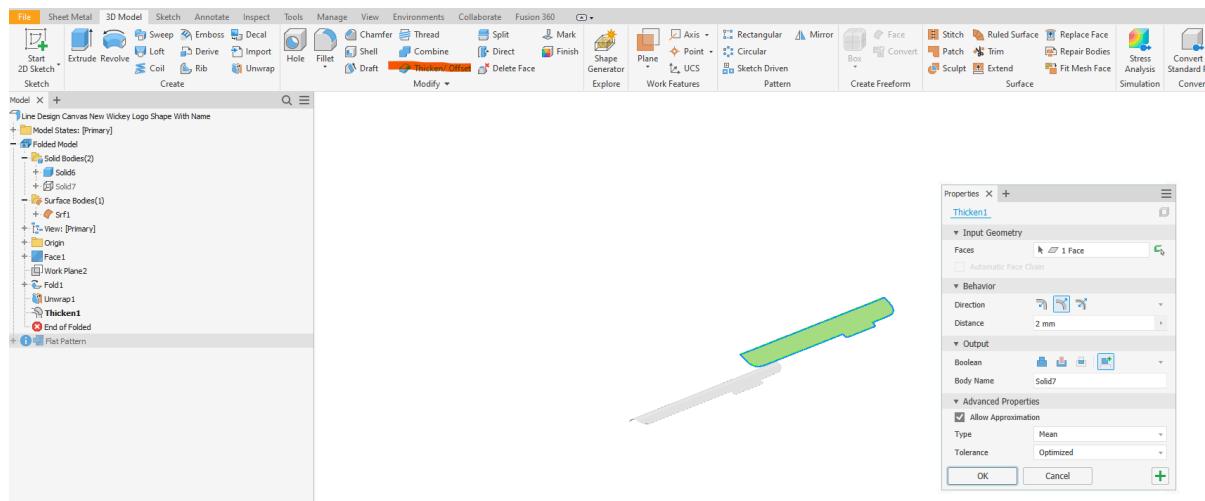


Here you just need to select the faces and it will give you a polygon network that resembles the flat canvas.

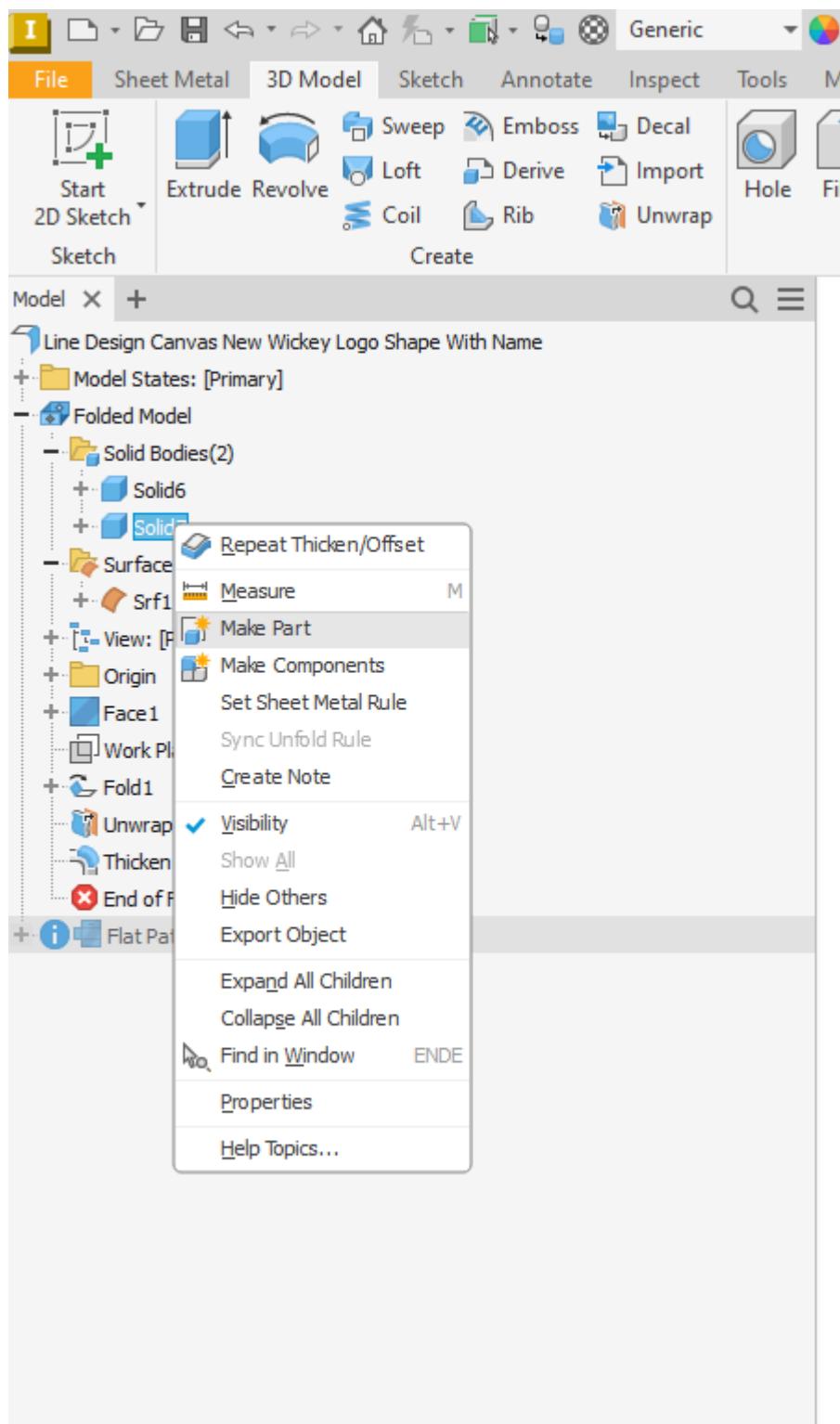


The problem often is that it is positioned somewhere in the room.

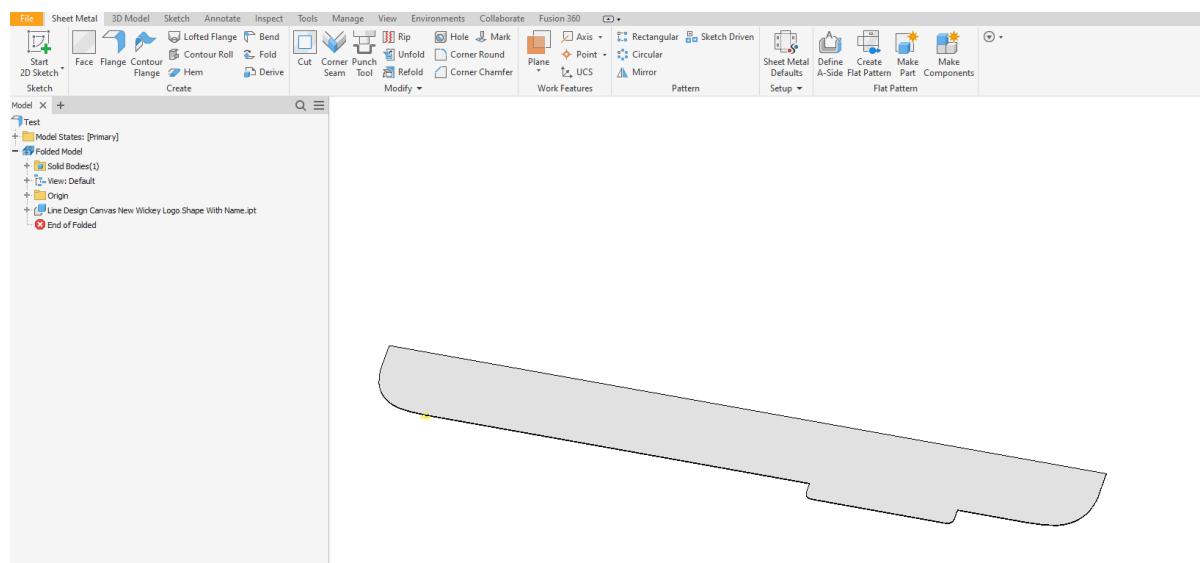
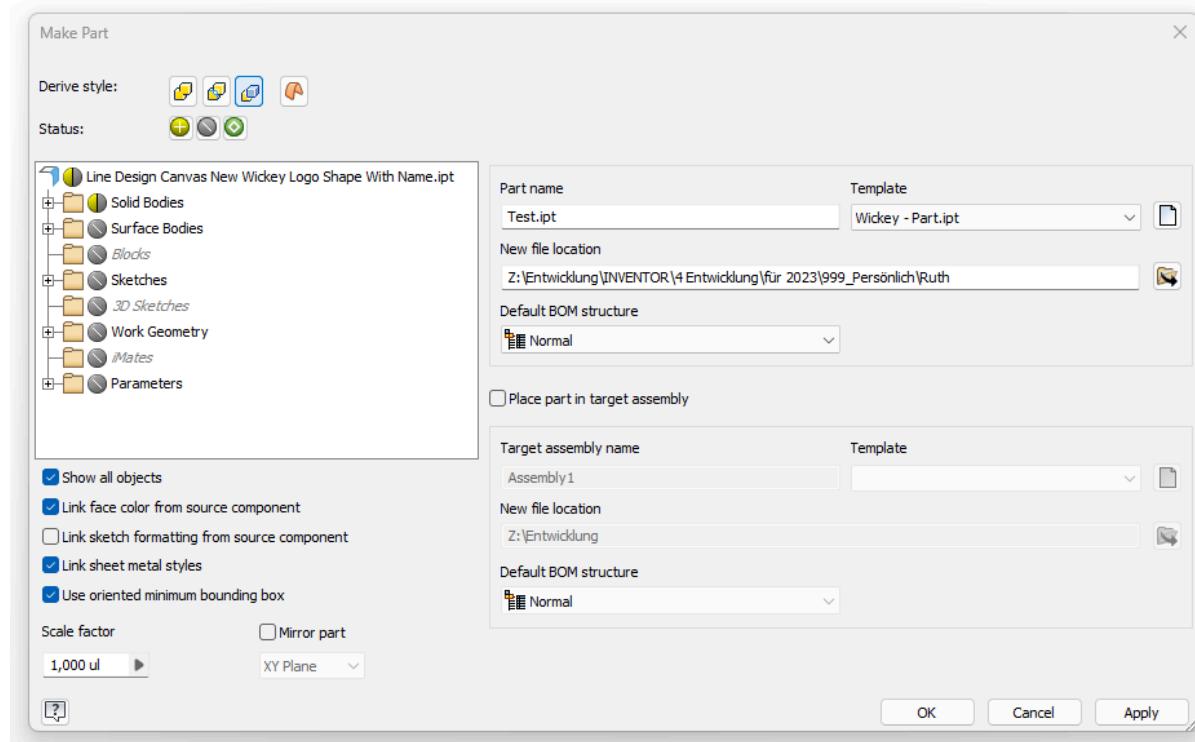
Then use the **thicken-command** to thicken the created plane.
Make sure, you use '**New Solid**' as a Boolean.



Having created a separate part, pick this one in the tree under the collection of 'Solid Bodies' with the right mouse key. Choose 'Make Part'.

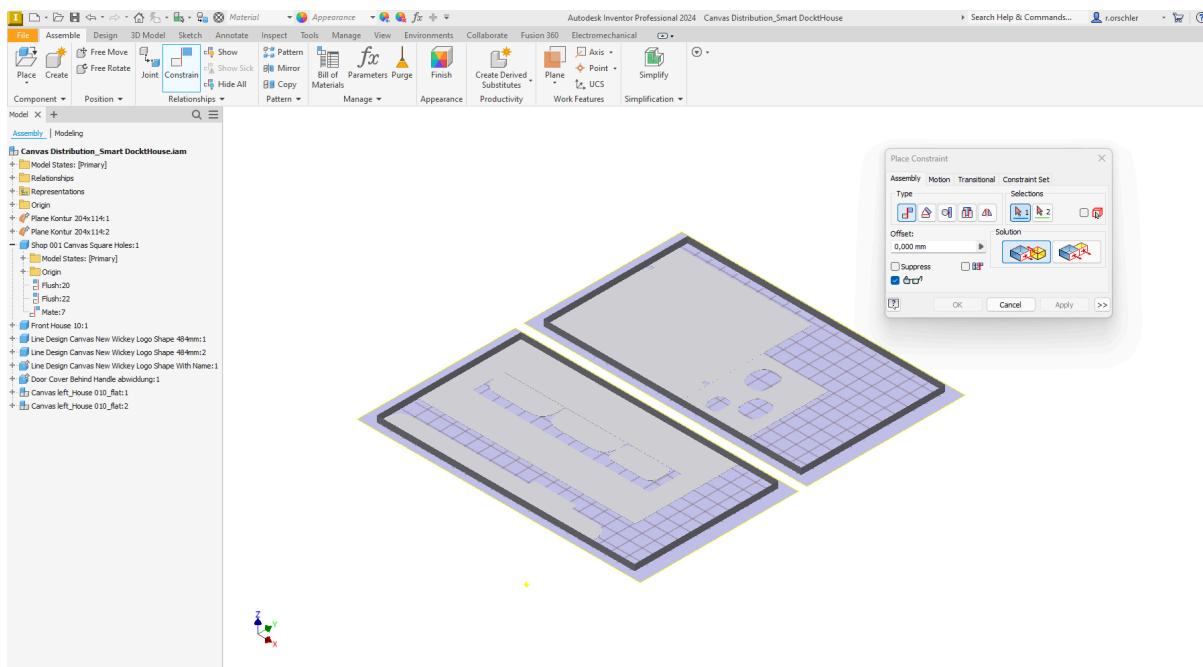


Then the window below should appear. Choose a part name and choose the '**'Wickey - Part.upt'** as a Template.

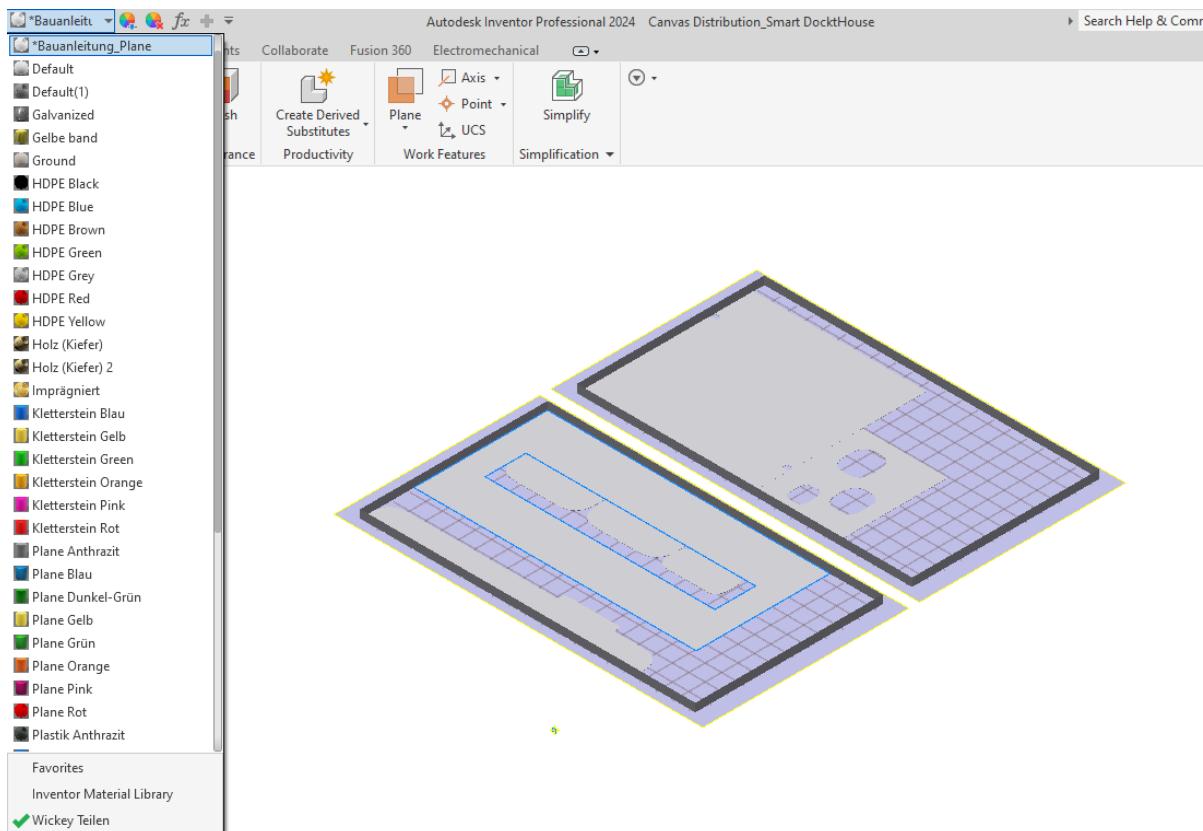


Canvas Distribution Assembly

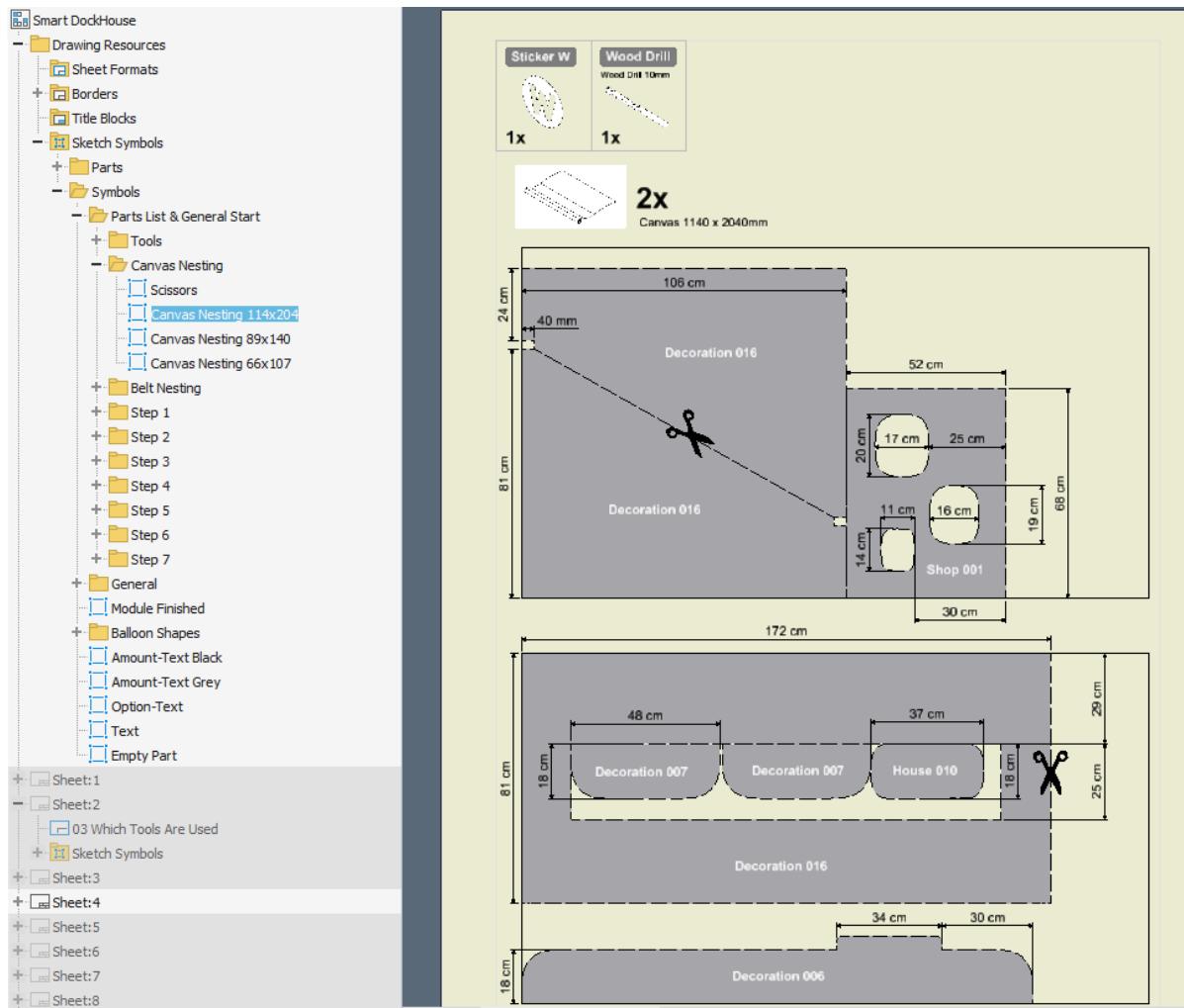
After you created all your flat patterned tarps use the 'Place'-command. Use constraints to place it in the frames. Choose the right canvas size. You might already have a given distribution provided by us.



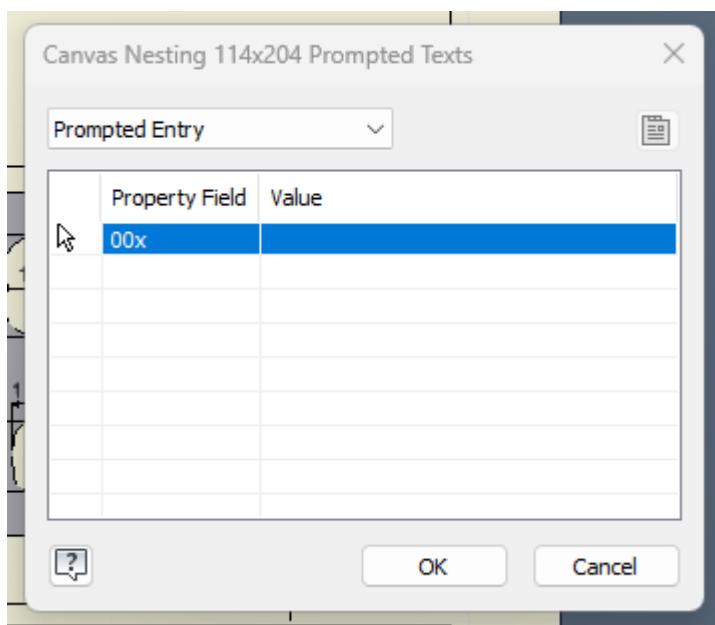
Choose '**Bauanleitung_Plane**' as a color to make sure to have the right gray later on in the idw.-file.



Having created the assembly of how all the tarps should be distributed, you can now go back to the .idw-file. Underneath the parts list, you will need to place the right canvas symbol plus the amount the canvas is used.



When placing the symbol the field below should appear and you can put in the amount plus an x.



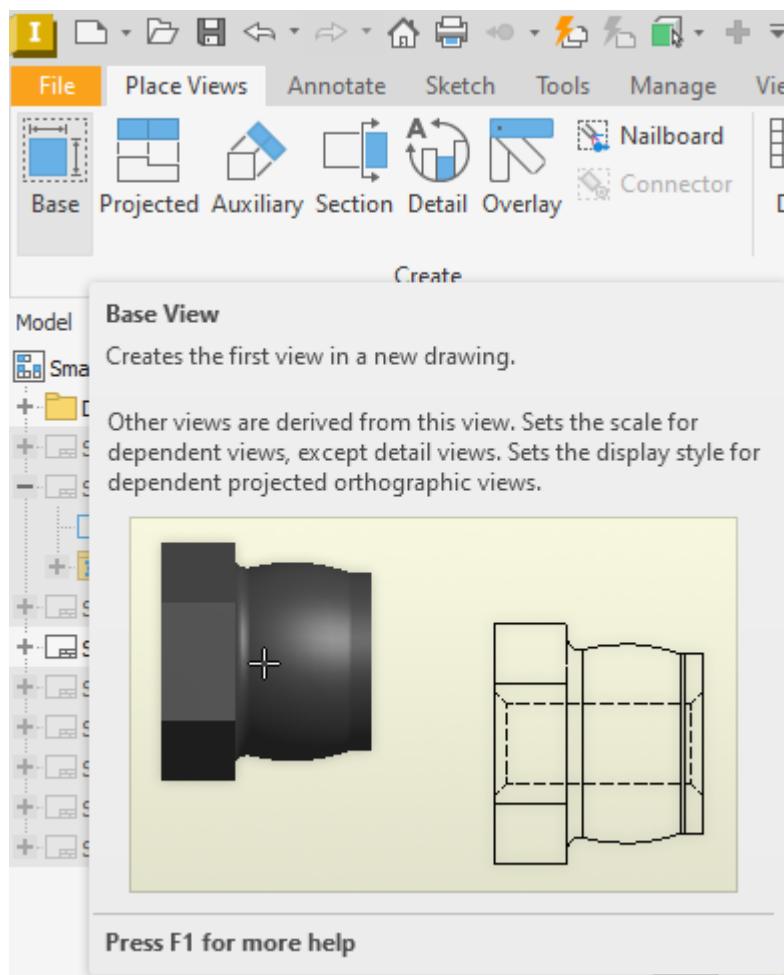
As you can see in the pictures, you will need to add the created distribution, **measurements**, **names**, symbols and make the lines where it has to be cut dashed. As well you will need to have a gray canvas shown. So therefore stick around.

Press '**Base**' and go to the folder where the distribution was saved. We save the distribution now with the main product under a sub-folder called '**Manuals**'.

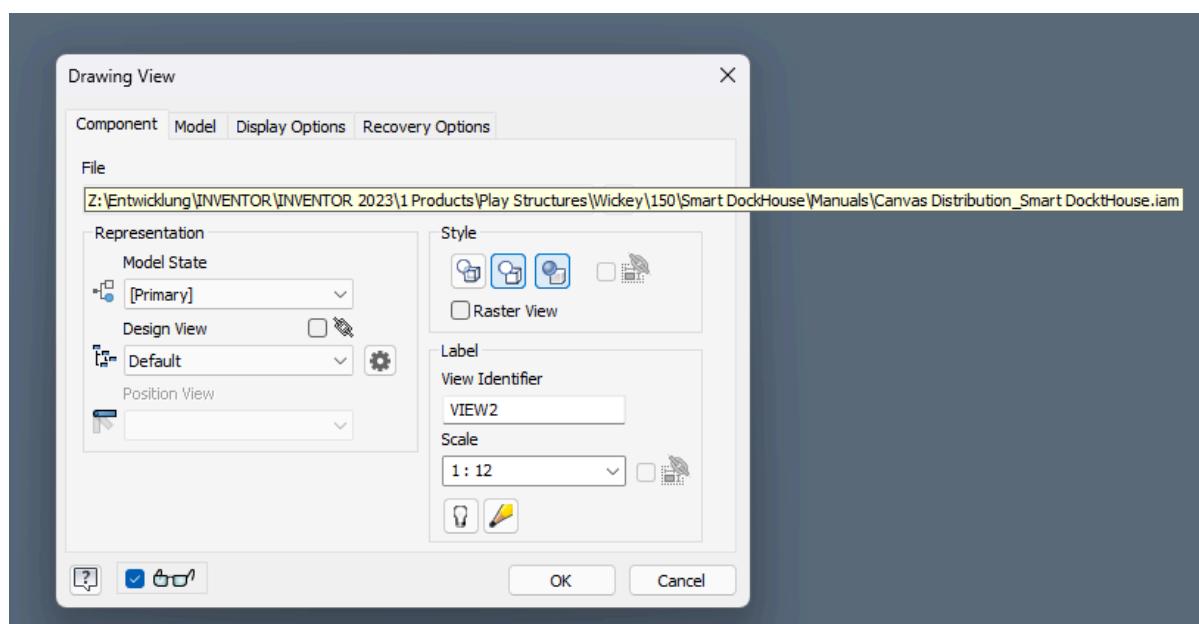
File path: Dieser PC > Abteilung (Z:) > Entwicklung > INVENTOR > INVENTOR 2023 > 1 Products > Play Structures > Wickey > 150 > Smart DockHouse > Manuals

Name	Änderungsdatum	Typ	Größe
%ALLUSERSPROFILE%	13.07.2023 10:58	Dateiordner	
OldVersions	13.07.2023 21:37	Dateiordner	
Belt 260 Splitted	28.02.2023 16:44	Autodesk Inventor...	162 KB
Canvas distribution T7.2	28.10.2022 14:47	Autodesk Inventor...	118 KB
Canvas Distribution_Smart DockHouse	28.02.2023 16:25	Autodesk Inventor...	174 KB
Smart DockHouse	13.07.2023 21:37	Autodesk Inventor...	145.757 KB

Dimensional Drawings Manuals OldVersions Info Names Smart DockHouse Smart DockHouse.stp

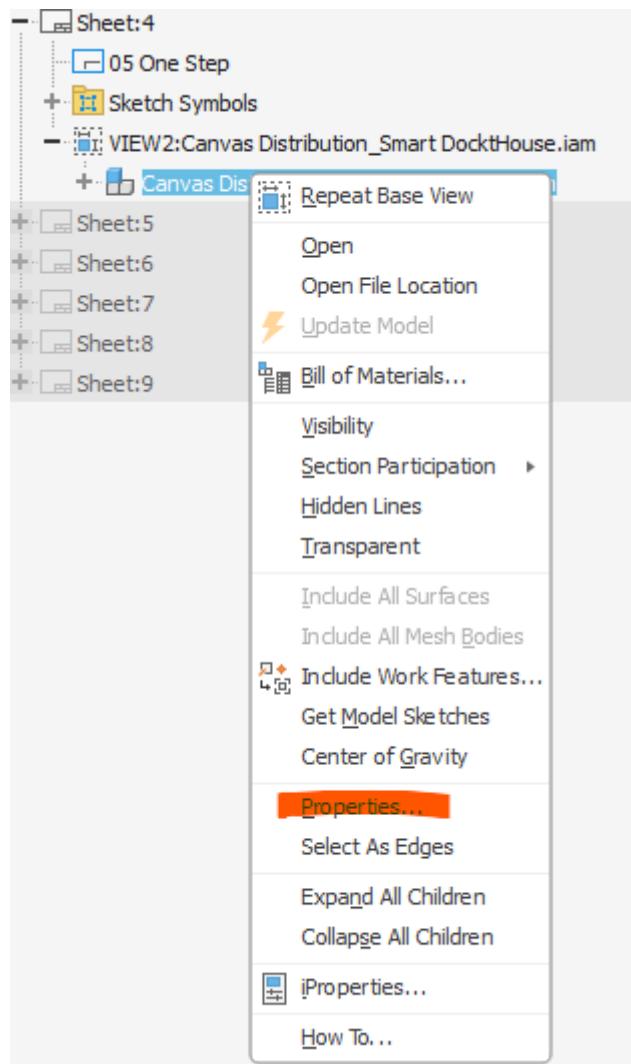


Make sure that you mark '**shaded**' and '**hidden lines removed**' underneath the 'Style'.



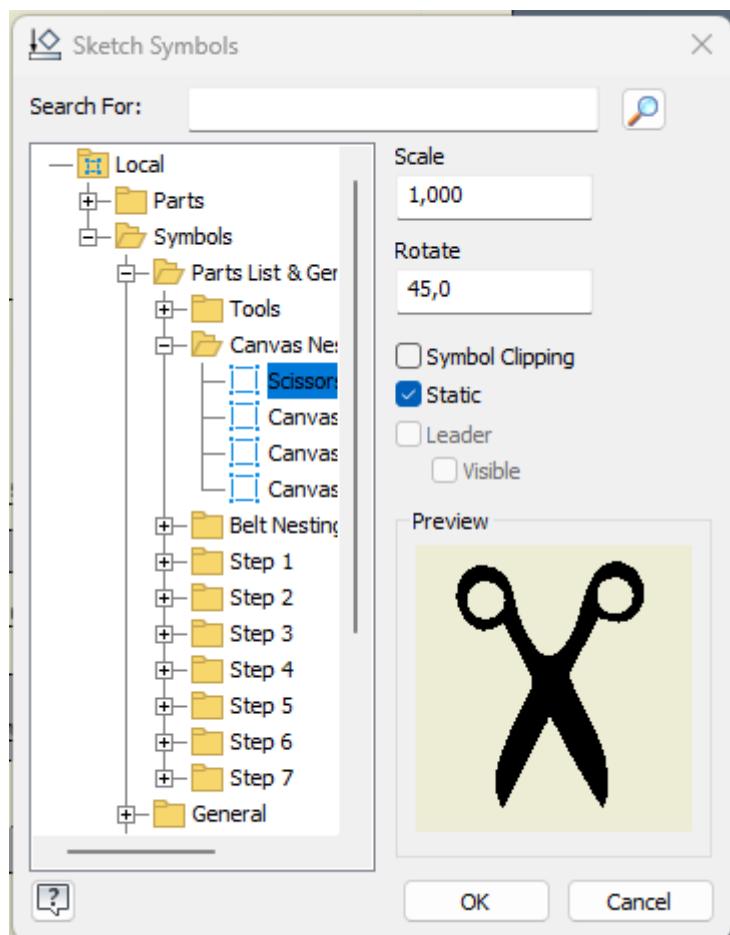
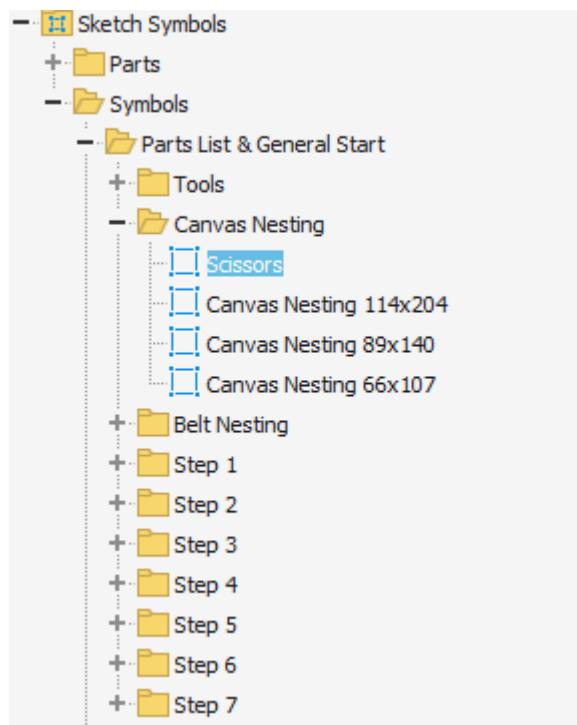
To change the outlines to black and dashed, go to the canvas distribution in the tree (unfold it to be able to choose the parts themselves) on your left side. Press the right

mouse key and choose '**Properties**'. Then a window called '**Component Properties**' should pop up. There you can choose the color '**black**' by double clicking on the square and change the '**Line Type**' from continuous to dashed for the tarps and leave it continuous for the 'Plane Kontur' (the square frames should have a continuous line) .



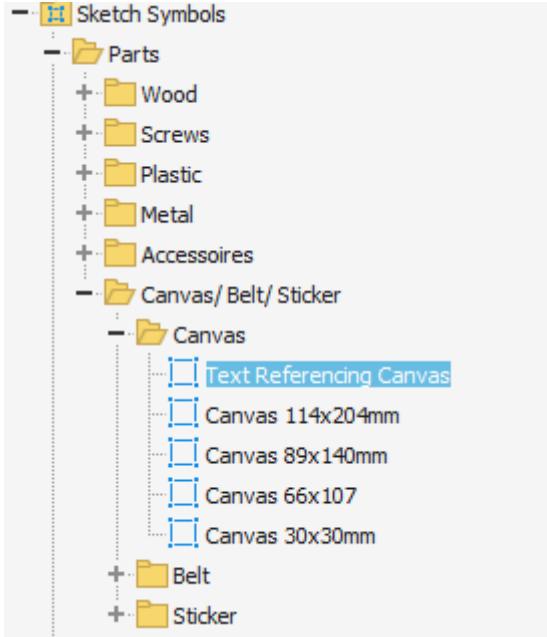
Rotating Symbols

To add the scissors go to sketch symbols and insert the symbol called 'scissors'. Depending on the dashed lines, you might want to turn the symbol around. Therefore you need to **press twice with the left mouse button** on the inserted symbol. Then a window called '**Sketch Symbols**' pops up. There you can type in the necessary angle to rotate the symbol.

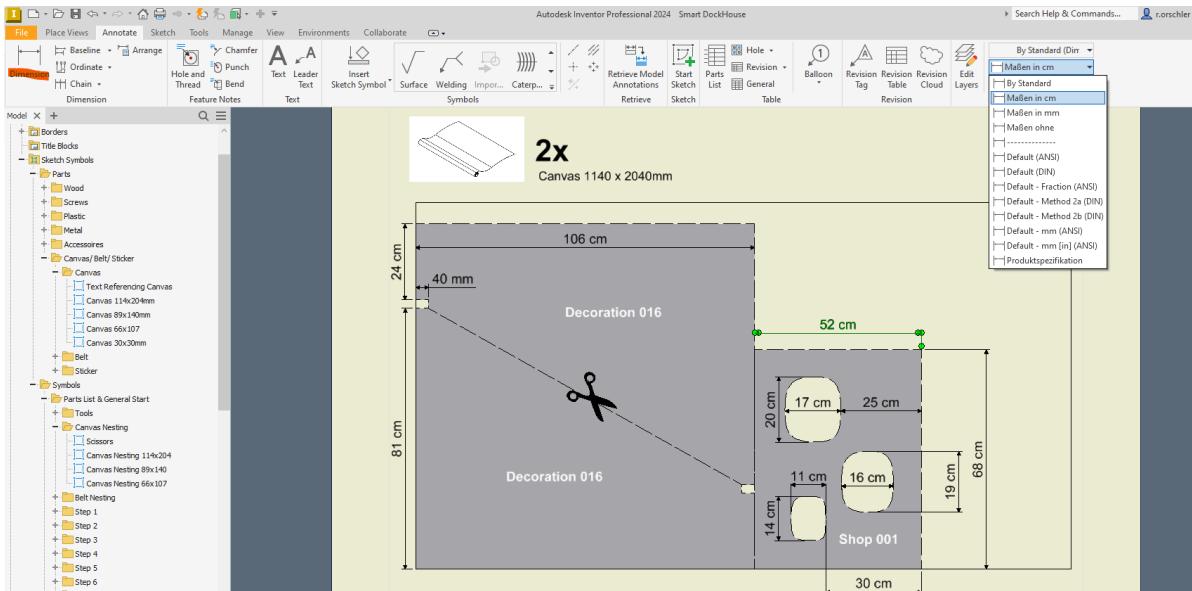


Naming Canvas Parts

Now you still need to add the text for the canvas in white. You need to refer to the module where the canvas is used later on in the whole manual. The majority will probably be a so-called 'Decoration'-modul with a 3-digit-number. Place a name on every canvas.

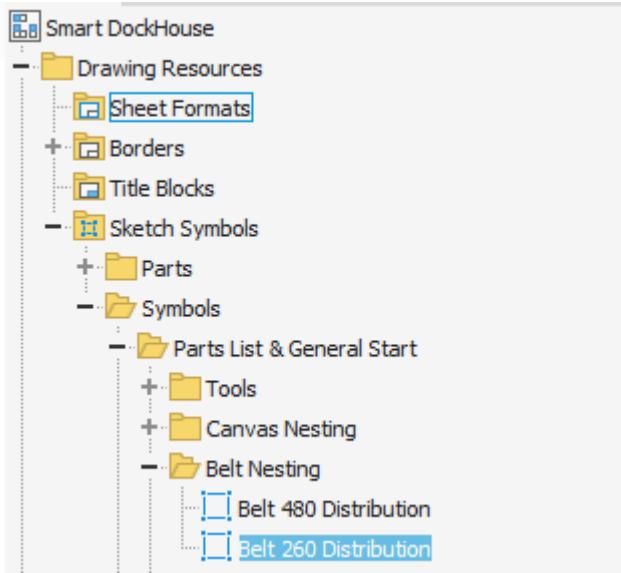


Last but not least when it comes to the canvas distribution you need to go to the '**Annotate**'-tab and use the '**Dimension**'-command. The standard settings should give you measurements in mm and the arrows you also see below. However if you encounter digits of three, go to the left corner and unfold the tab using the arrow pointing down. Choose '**Maßen in cm**'. For two digits 'mm' is just fine.



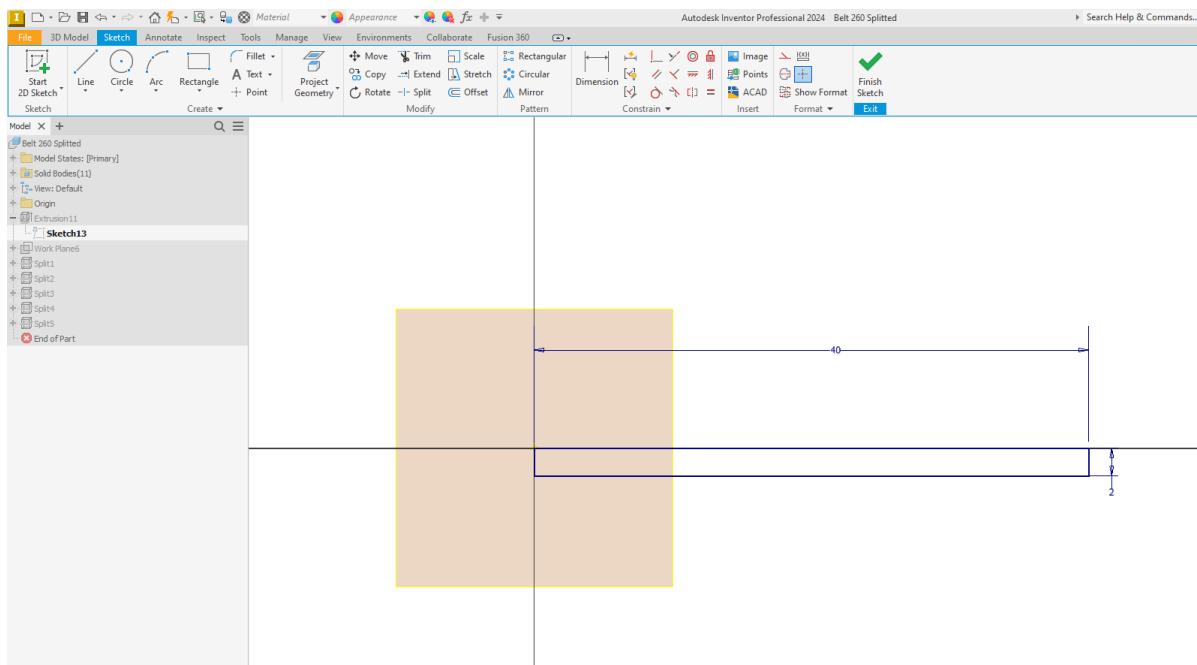
Belt Distribution

If a belt that needs to be cut is used, you also need a belt distribution. Therefore choose the used belt length in form of our symbols and add to the left upper corner.



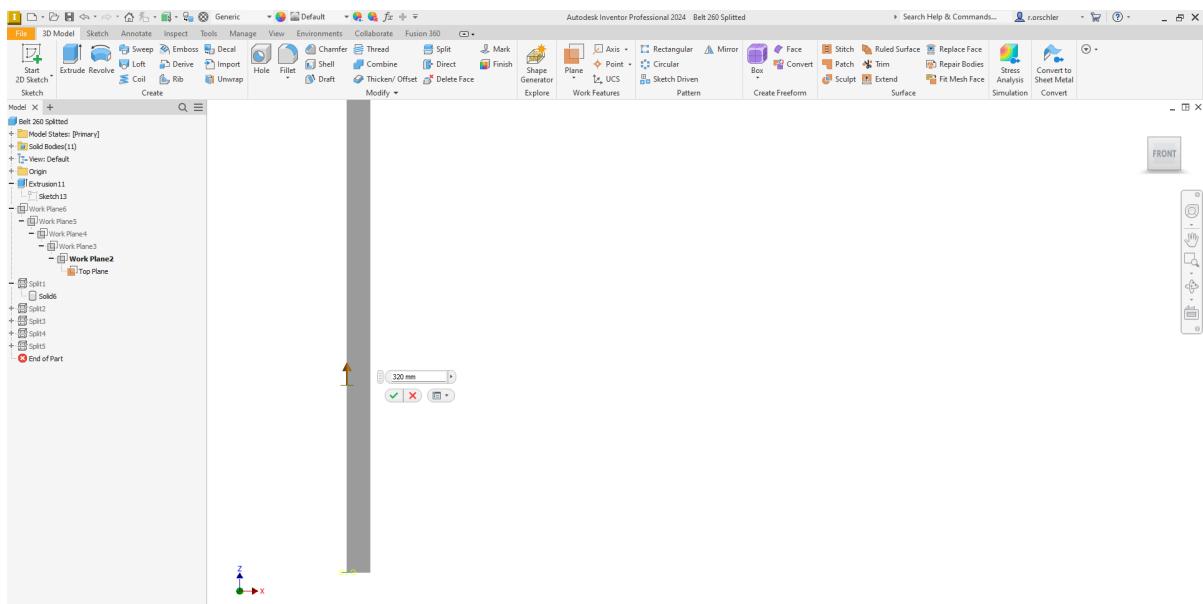
Then you need to prepare a belt file that you can use here for the idw.-file. Therefore it is important to calculate all the used lengths together and that they fit the length of the belt.

The usual profile of the belt has a **width of 40 mm** and a **height of 2 mm**. Make a new part for this using these sizes and extrude the sketch depending on the used belt length for **2600 mm** or **4800 mm**.

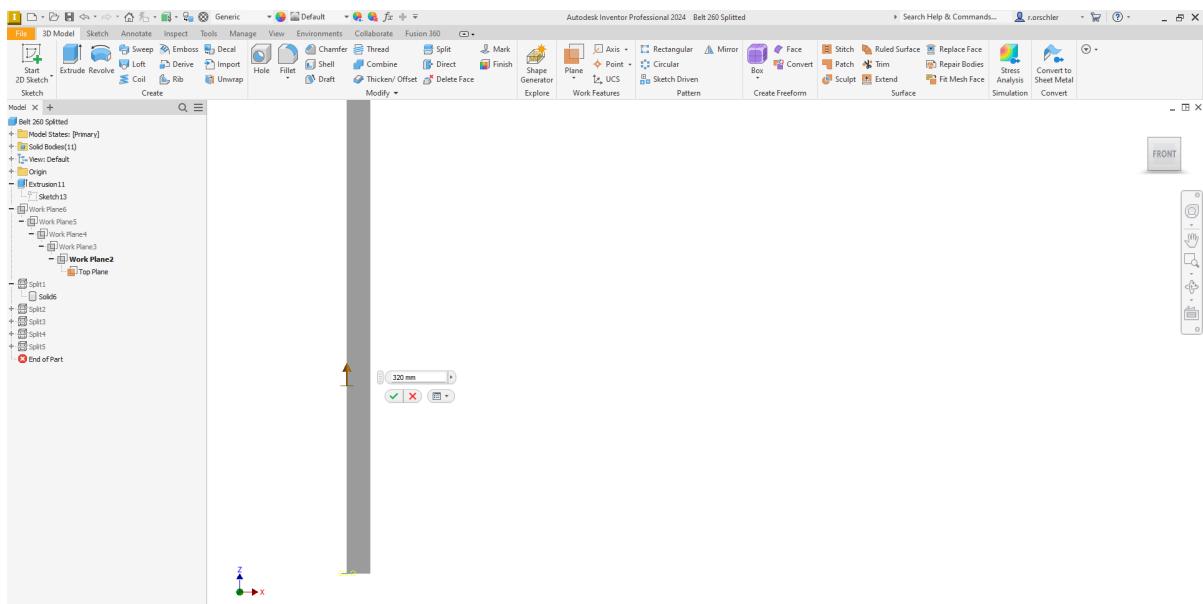




Then you can place planes according to the cutted lengths you need.

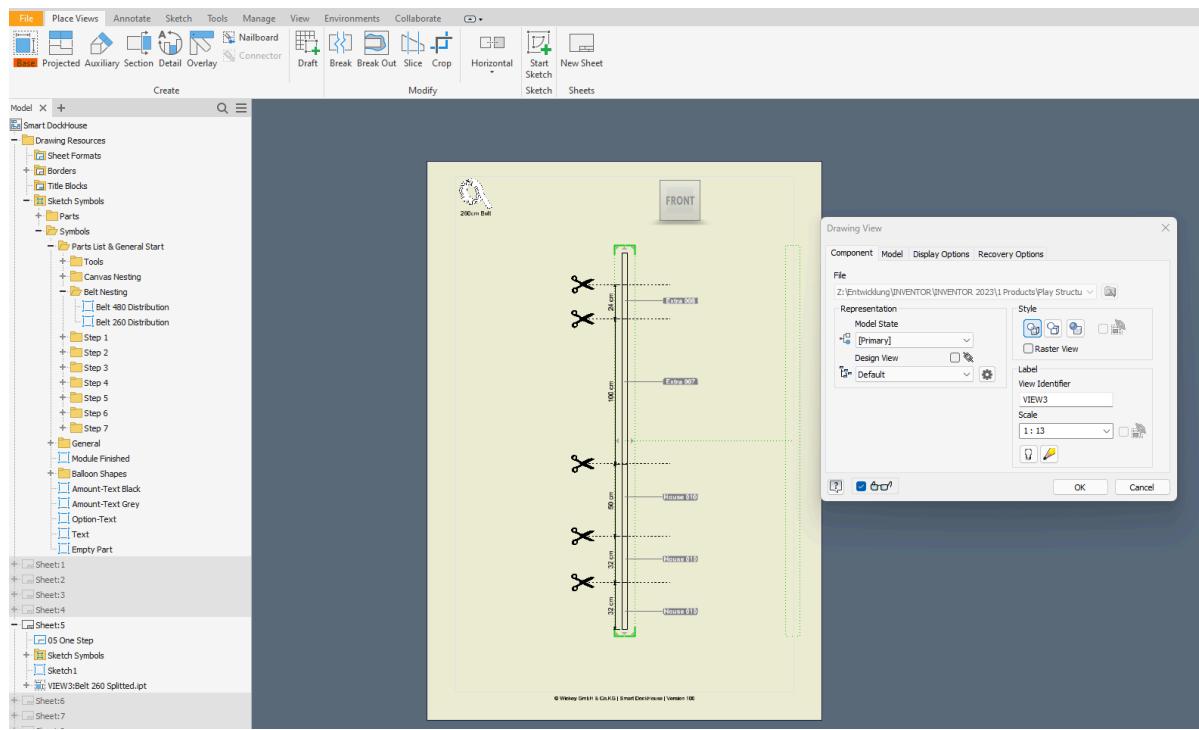


After having placed all planes, use the Split-command.

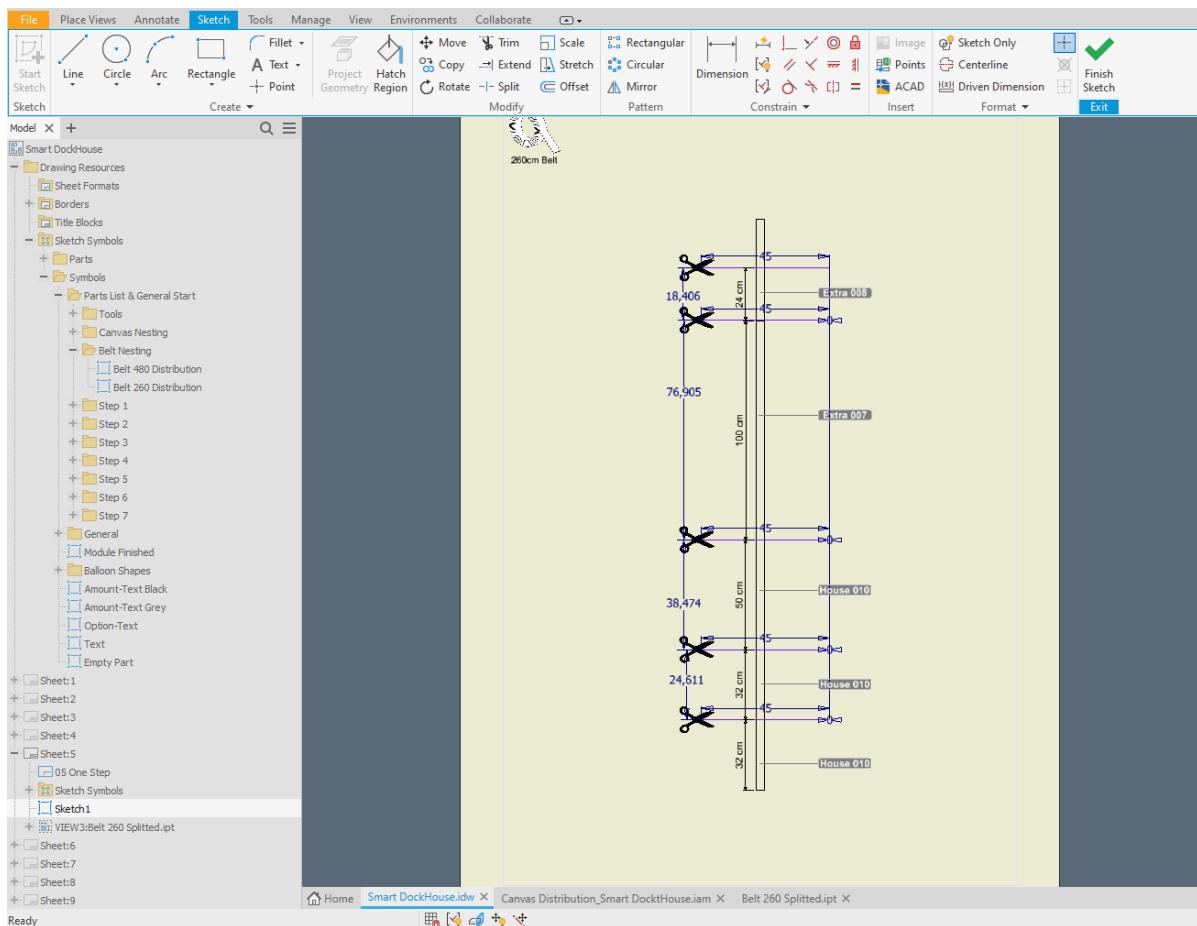


Then you should see lines in your object that will reoccur in the idw.-file after placing the band.

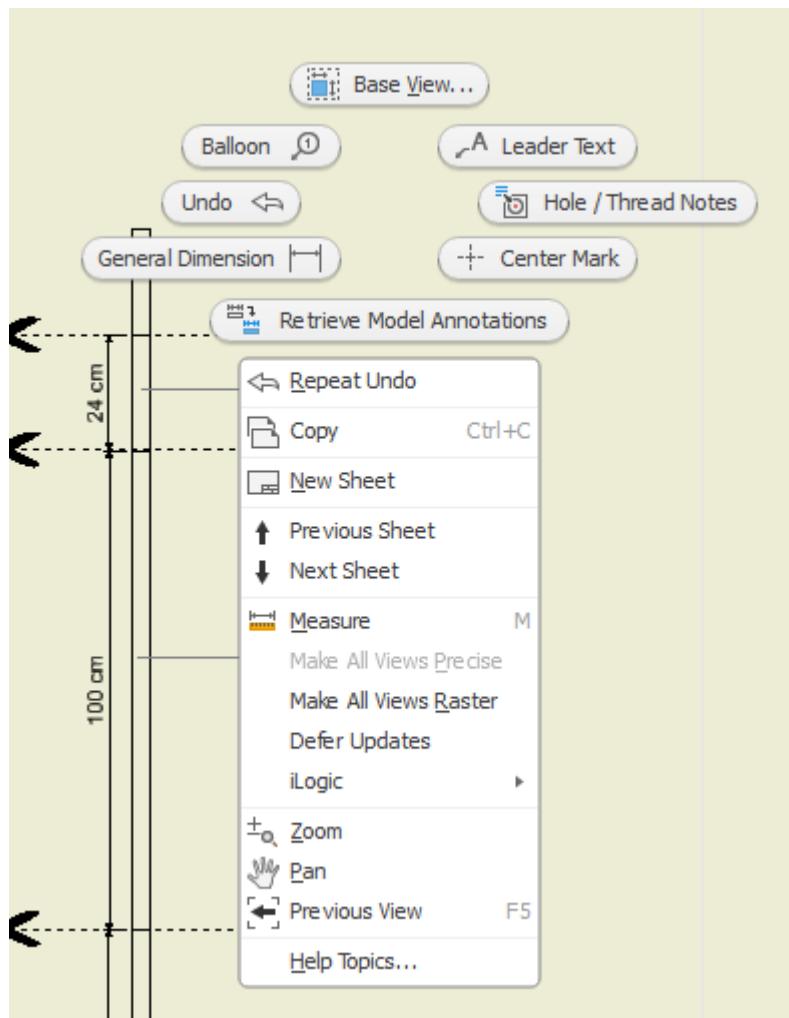
So go to your idw.-file and use the '**Base**'-Command in the '**Place Views**'-tab and search for your Belt-file.



To add the **dashed lines** as you see them, make a **sketch** using the same lengths of lines and place them upon the already lines that come from splitted command.



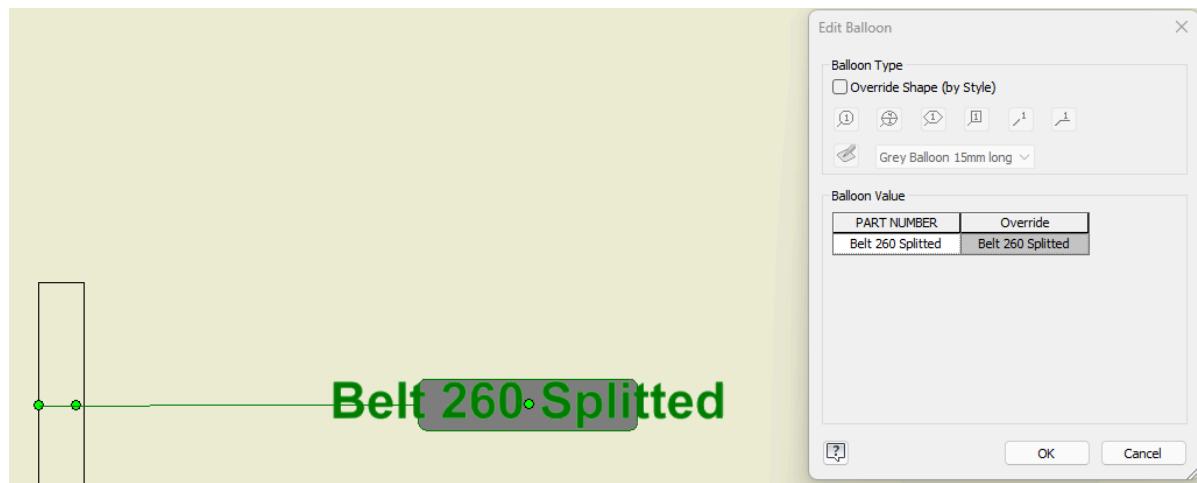
How to add the **scissors** you find in the part about the canvas distribution. Then you need additional balloons to reference the belt. Therefore press the right mouse button, that the following occurs:



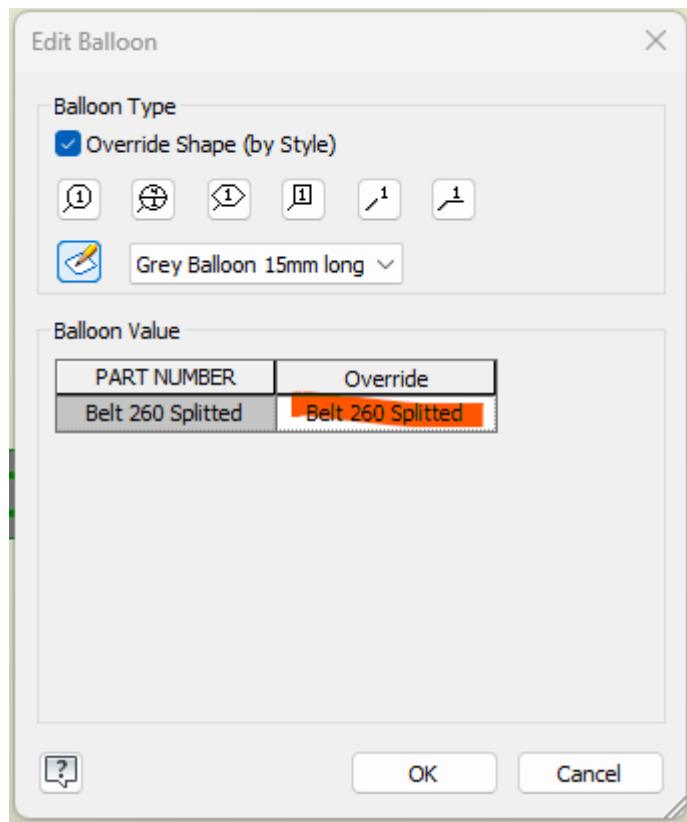
Choose the '**Balloon**' around the position, you would assume is 11 o'clock (if this would be a clock).

Then press on the object you want to reference. It might happen that not the name you need, will occur automatically. Therefore **press twice** on the **balloon** you created to edit it.

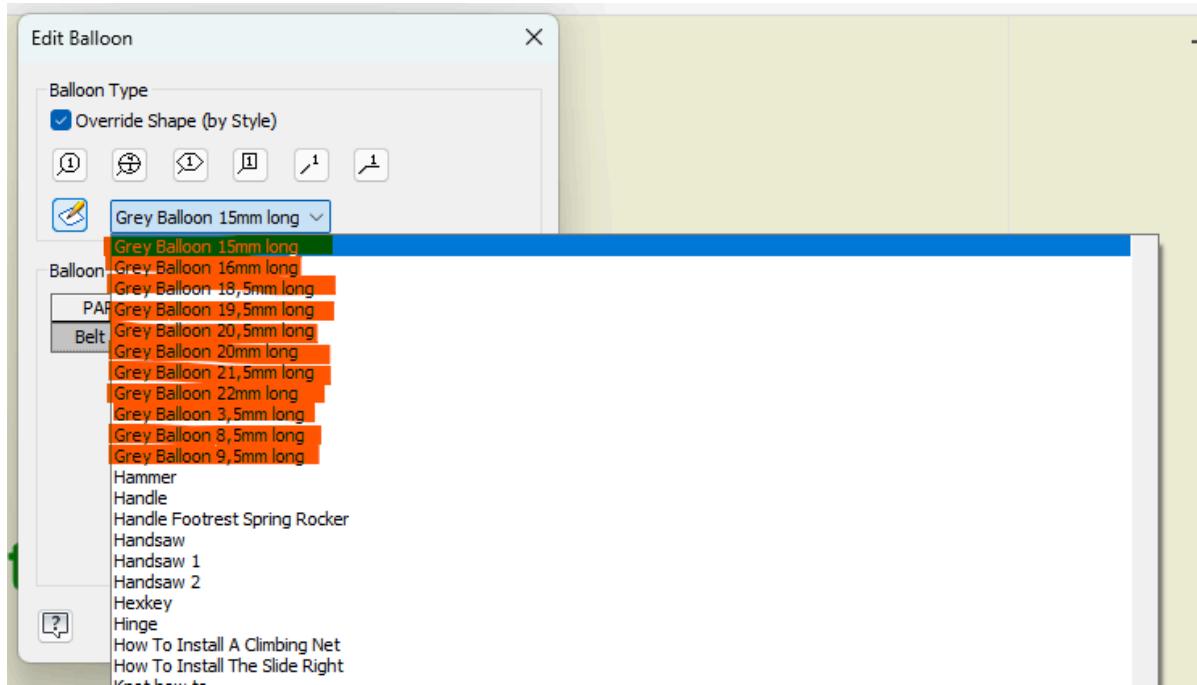




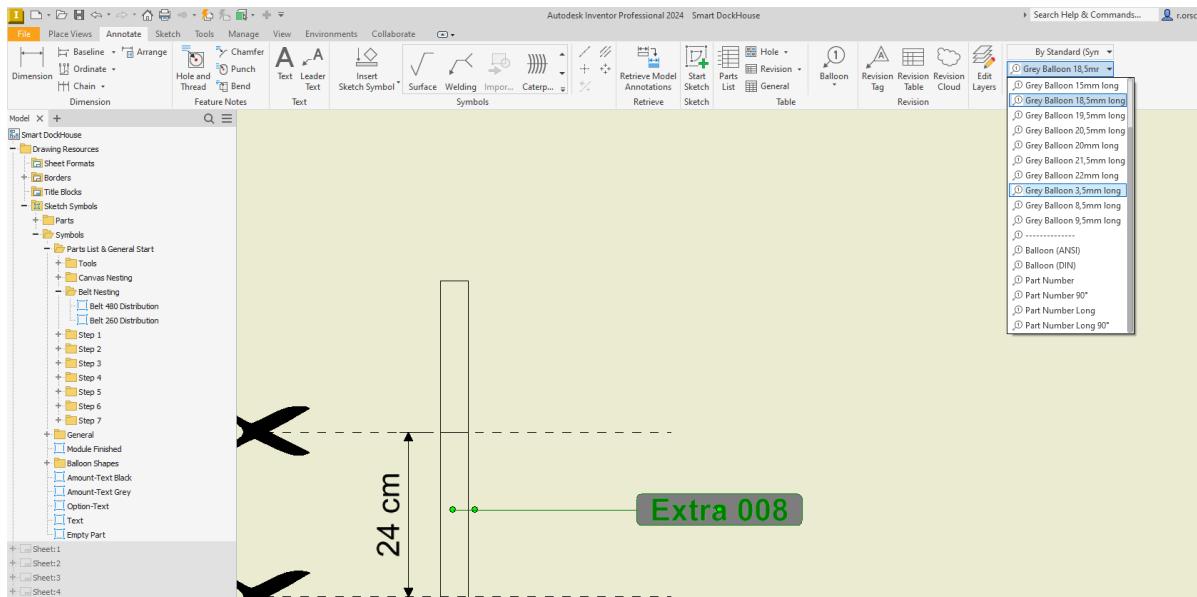
Then check '**Override Shape**' and override the field beneath Override which is marked here. Additionally choose the necessary balloon size.



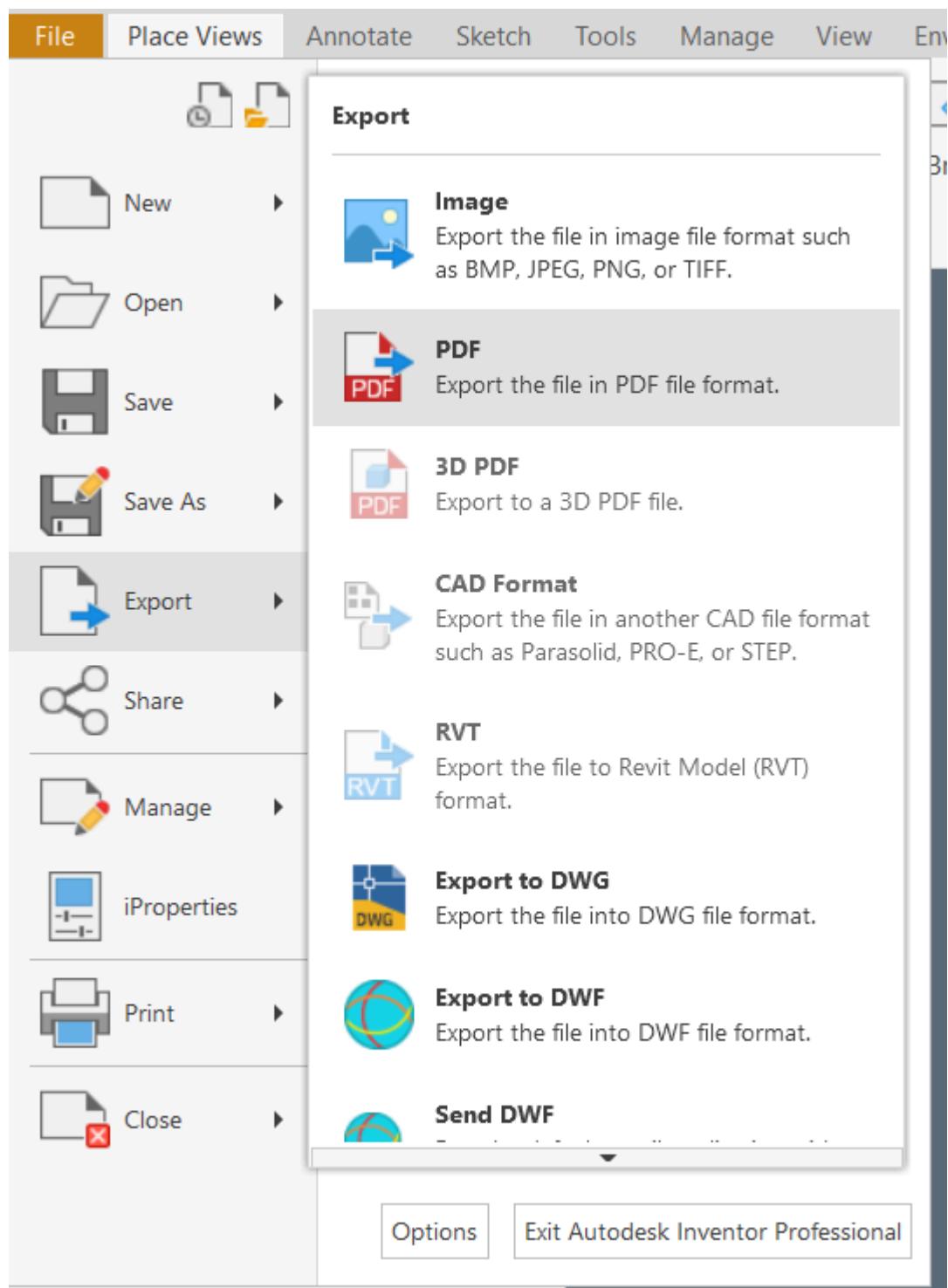
Choose a size from the marked names. Here you have most of the choices.



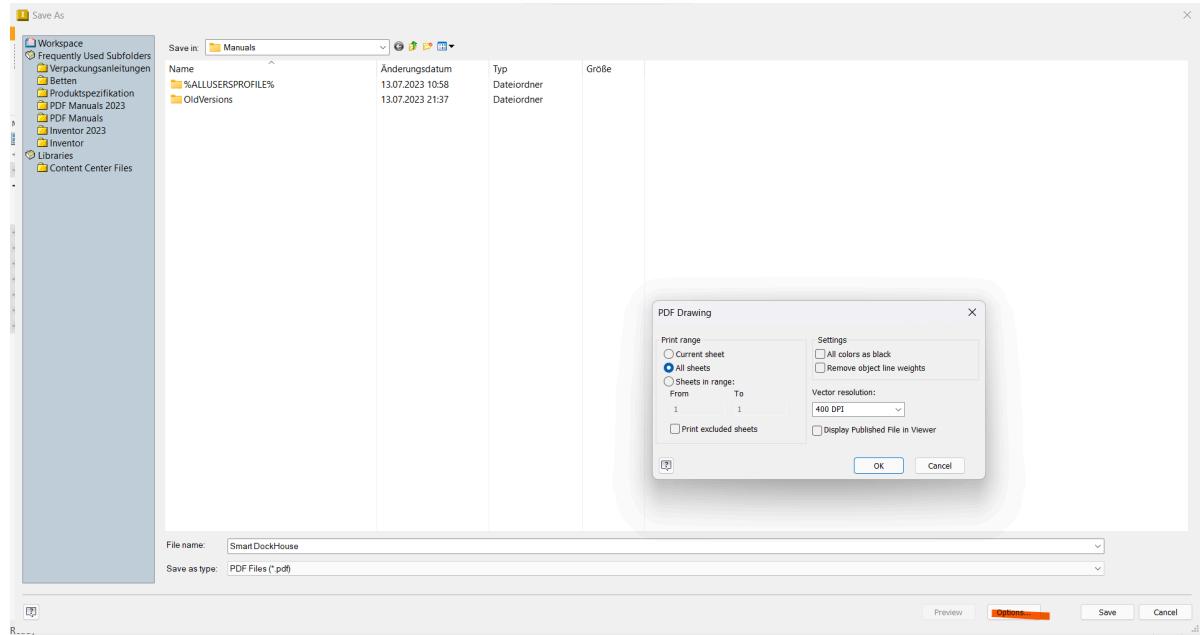
There also is another method to change the size afterwards. This would be to open up the tab '**Annotate**' and head to the right corner above the words '**Format**' and press the arrow facing down. Here you also choose a different balloon.



Then you end up that the template gives you predefined pages after this. Having finished the idw.-file you need to generate a PDF.



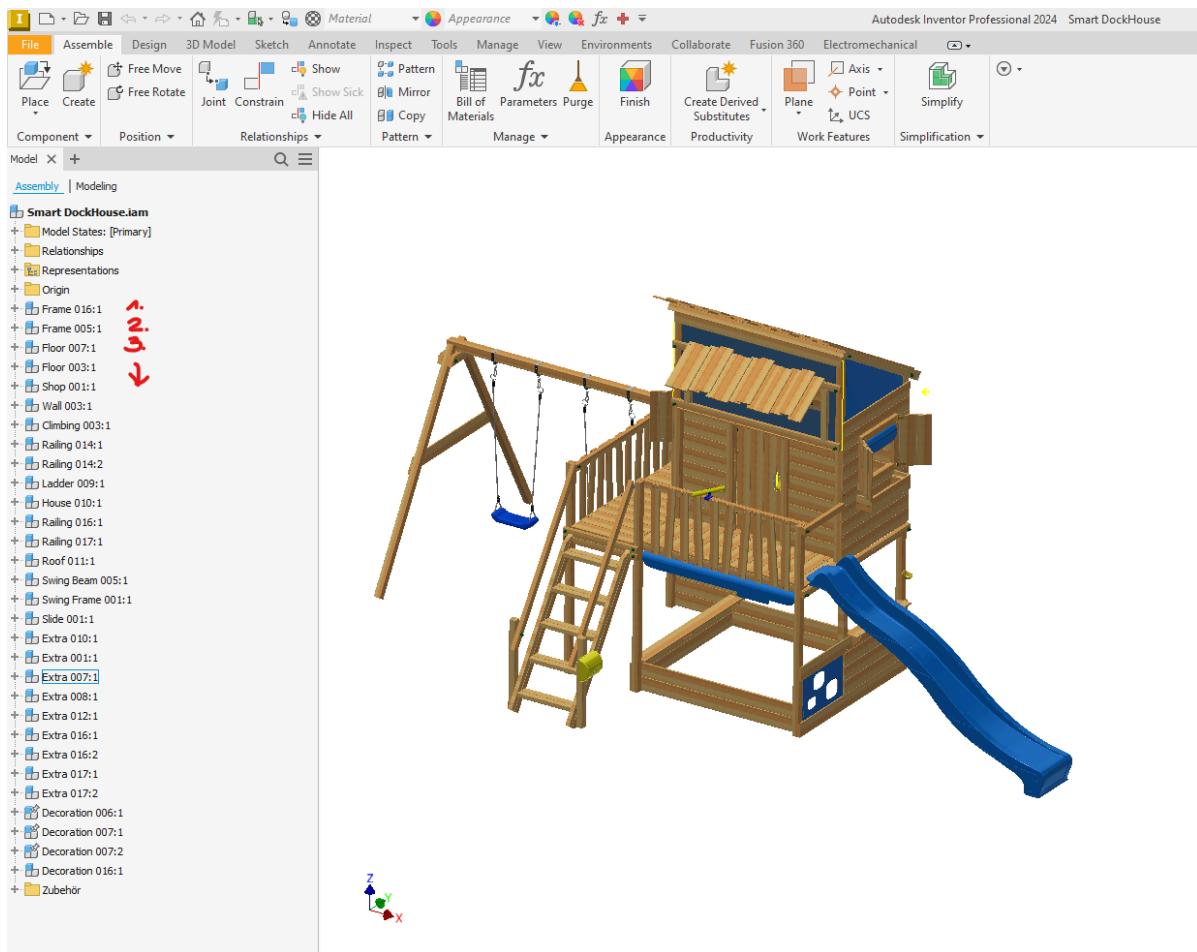
If you are exporting PDFs for Inventor for the first time, it might be that not all pages get exported.
Therefore you have to mind the '**Options**' in the window popping up after having pressed 'Export -> PDF'. Check 'All Sheets'.



Presentation-File

To start with the modul-manual, you have to prepare the presentation file. There are different methods for this. Some like to go from the built up module step by step back to the first parts of assembled wood. Basically working backwards. I tend to open my idw.-file and try to decide step by step which is the best to show, making it possible to adapt the step as you need it directly - without having to calculate upfront how to show everything without having it on paper. The sad thing about creating these files is, that you can not move them around and change their order if necessary.

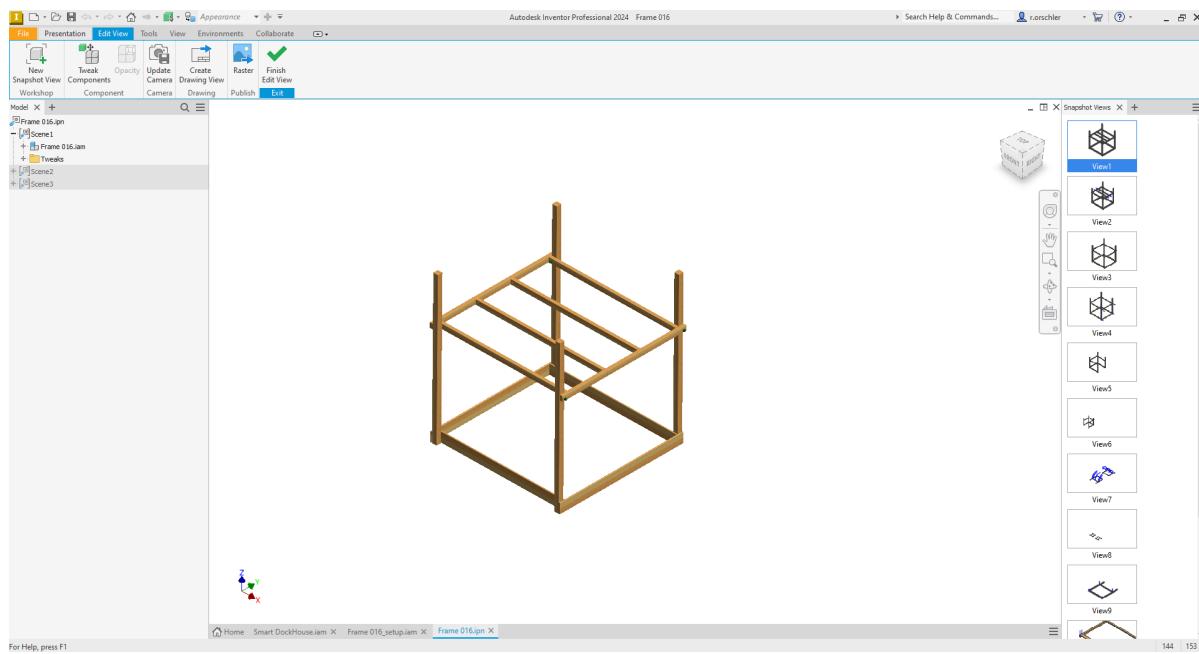
So unfortunately it is easy to create some chaotic state in your file. You can just name the steps as you please and regain some order. So let's have a look at the main assembly to figure out which modules we need as a manual and if the assembly has been sorted.



The modules in the tree on your left should be **sorted**. If you go through them, it makes sense that the tower is built up in that order. If not, the tree has to be updated. In general you can orient yourself at the folder structure. However sometimes it makes sense to change it and that is alright too.

So as you can see, we start with the **main frame**. This is a module that stands for itself. The thing is not all of the modules work like this. Some of them need additional support. But as the modules should be reused also for manuals of other towers, we want to **keep the manual as neutral as possible**. This means, if you are trying to show a dependent module, show it with the least extra things that do not belong to it, but are necessary so that the complete structure makes sense. For instance the floor-modules need a frame, where they are attached to. If the main file makes it impossible to show this in a simple way, we generate **set-up-files**. Set-up files include the module you want to build and the reference, where it is attached to. We will have a look at this after we cover a frame-presentation-file.

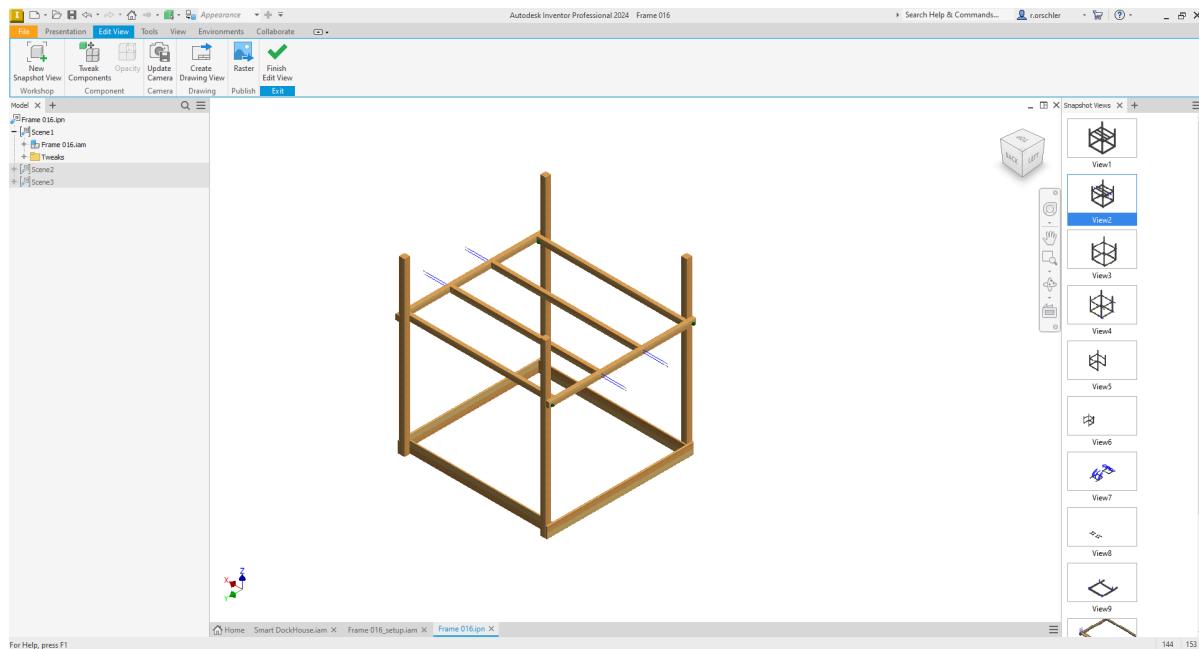
To open a new presentation-file go to 'File -> New -> **New**' and then choose the template 'Wickey-Presentation.ipn'. Then you are asked which file you want to open. Choose the module!



Your main module assembly should be visible in the main world of Inventor.

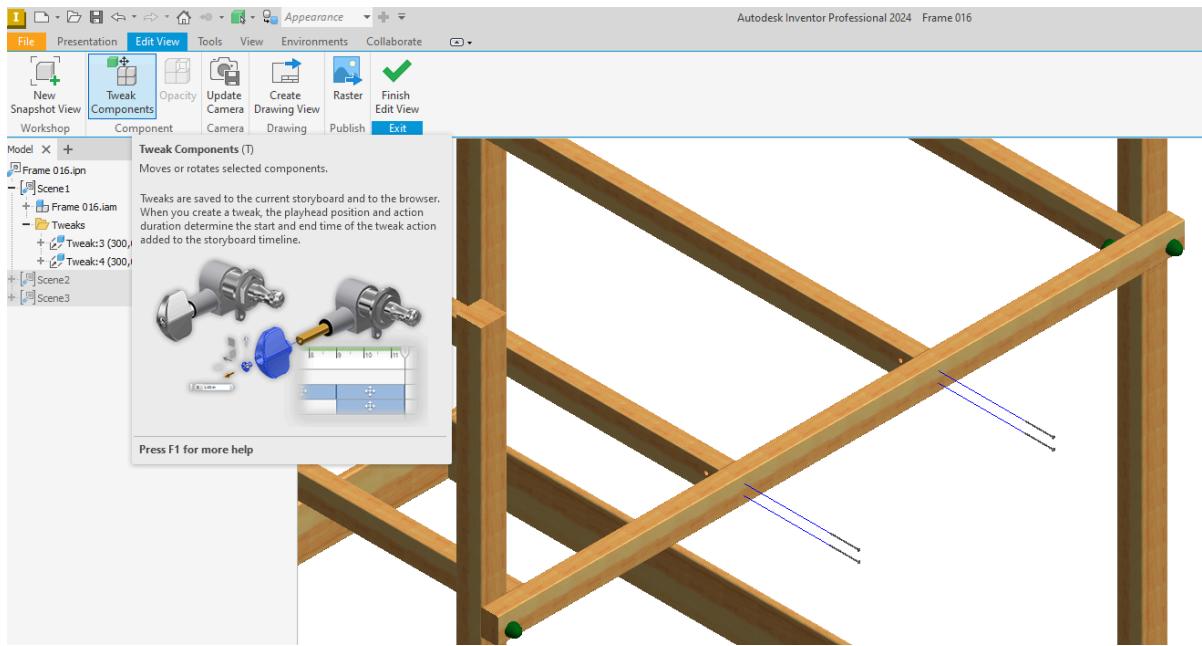
Snapshots

First of all, it is useful to make a snapshot of the total assembly that you can always go back to, if necessary. Therefore press '**New Snapshot View**'. Afterwards make another one - press '**New Snap Shot**' again. You will see, that on the right hand side little thumbnail pictures of views will occur. So here, we see the person worked here used the method to go backwards as in the second View as you see the last step that has to take place is shown here.

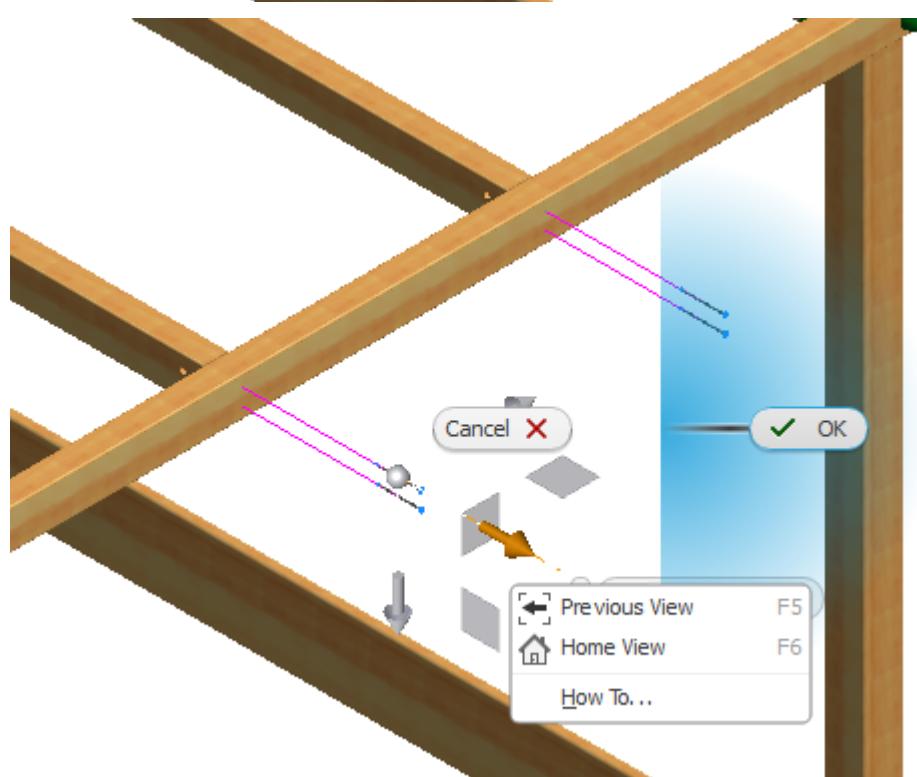
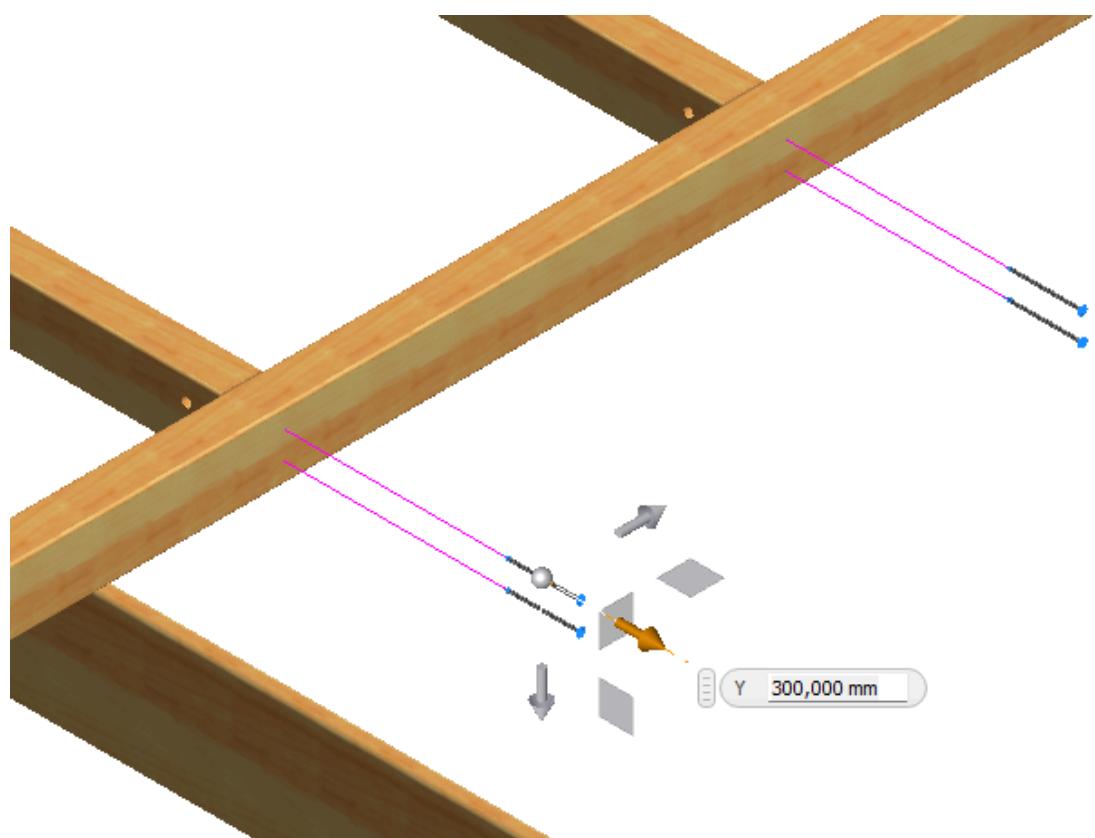


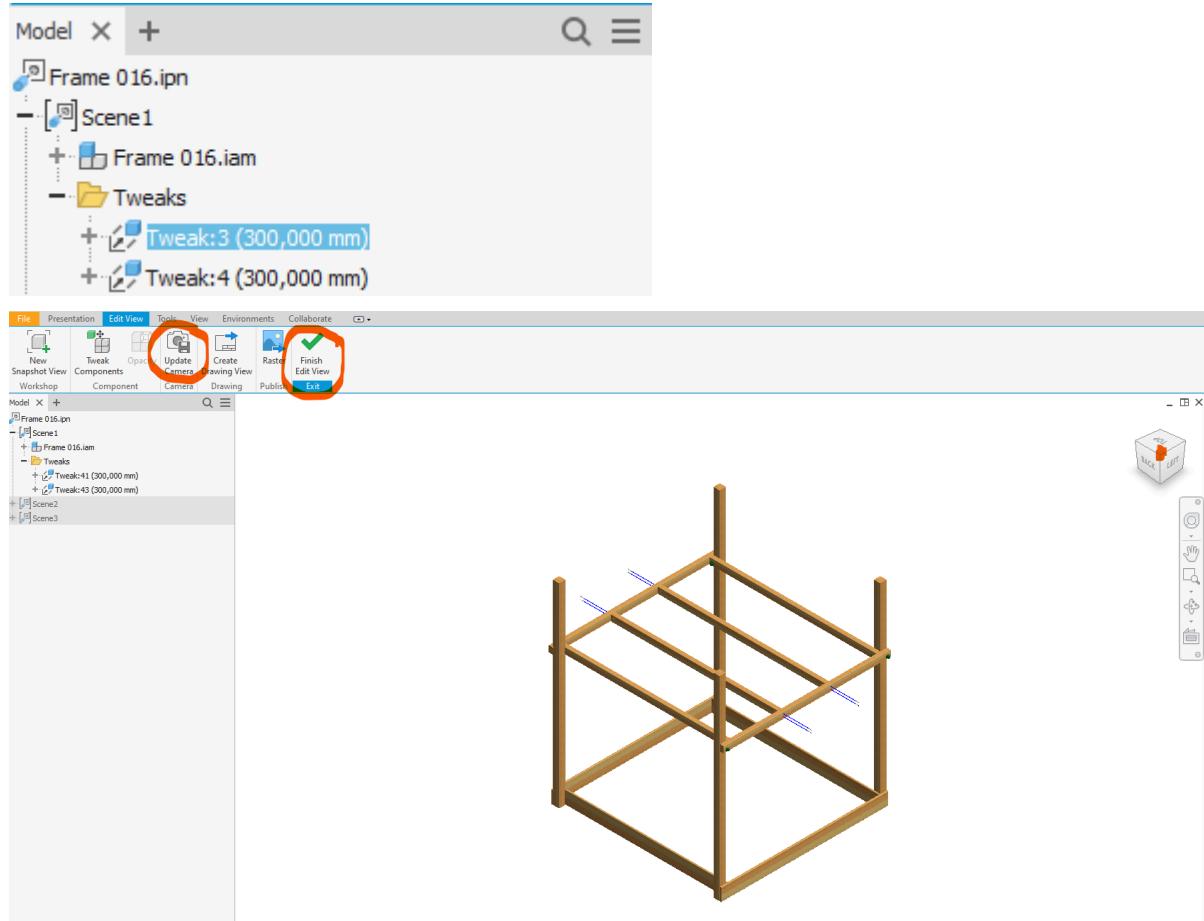
Straight Tweaks

To create the lines and the screws being moved outside the beam to show that you need to use them in this step you have to create so-called '**Tweaks**'. However, first you have to **make sure where you are**. **Double click** on the thumbnail picture of the step you want to prepare and it will be marked in **blue color**. Otherwise you might wind up making changes in the main view or in a step where you did not want to make changes causing much more work.

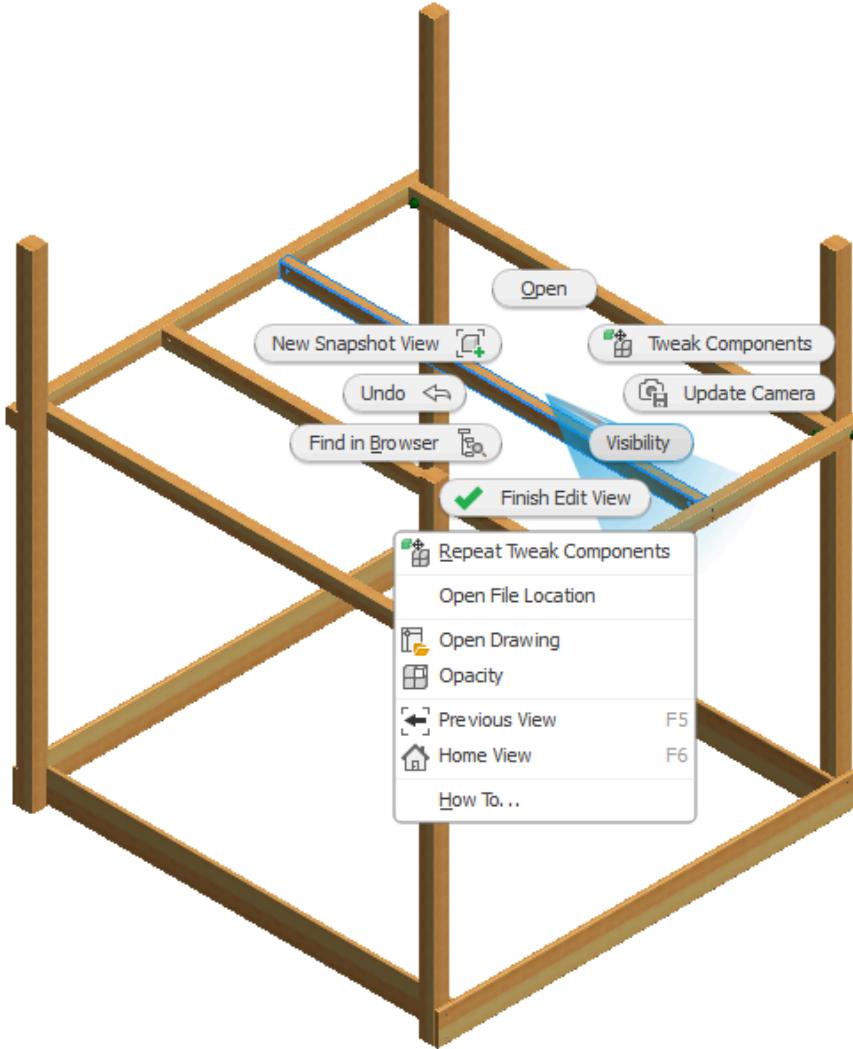


You find the '**Tweak**'-command in the upper right corner. After pressing that, you need to select all the parts you want to tweak in the same direction and distance or you need to repeat the command. To select more parts at once hold the '**SHIFT**'-Key. Then pull the parts in the intended direction and in the field popping up you can also type the wanted distance or you pull intuitively. Then press the right mouse key and '**OK**'. If you want to change something afterwards, you can always use the right mouse button and click on the tweak to change it. When you are done make sure to use an isometric view and press '**Update Camera**' and then that it all is saved press the green hook '**Finish Edit View**'.





For the next Step you will need to create a new '**New Snapshot View**'. As this step is before the step where the middle beams were added, they should not be visible in this step.

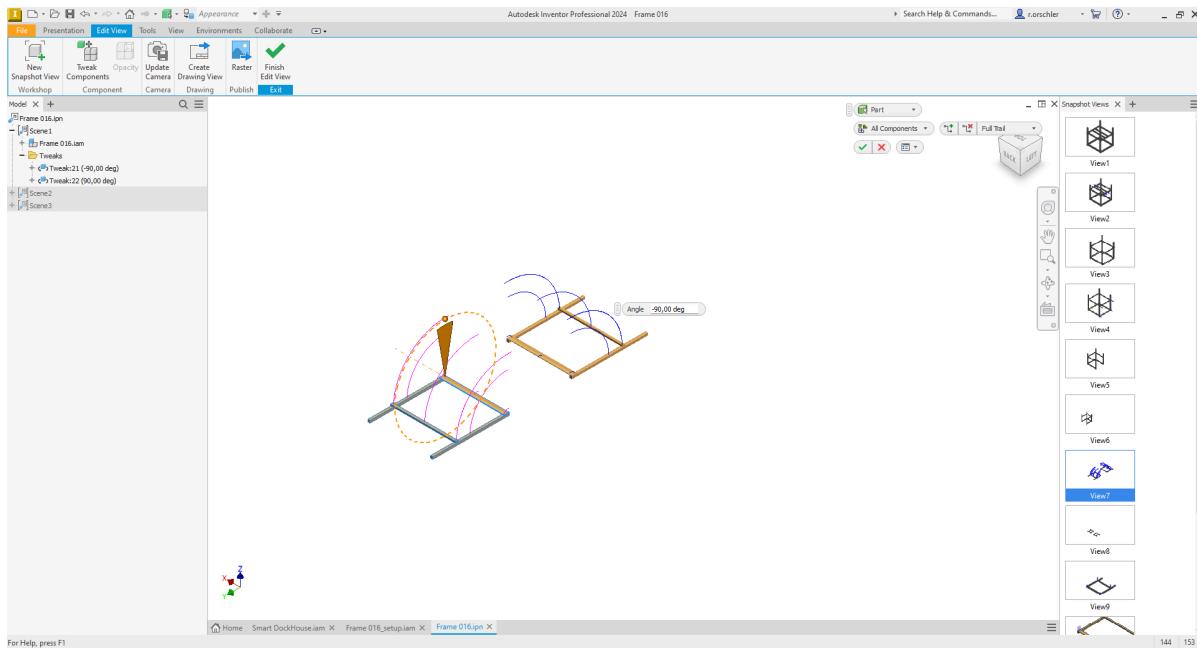


Use the **right mouse key** and press on the parts that should disappear in this step. If there is more than one part that needs to disappear, use the '**SHIFT**'-Key. Having selected all, press '**Visibility**'.

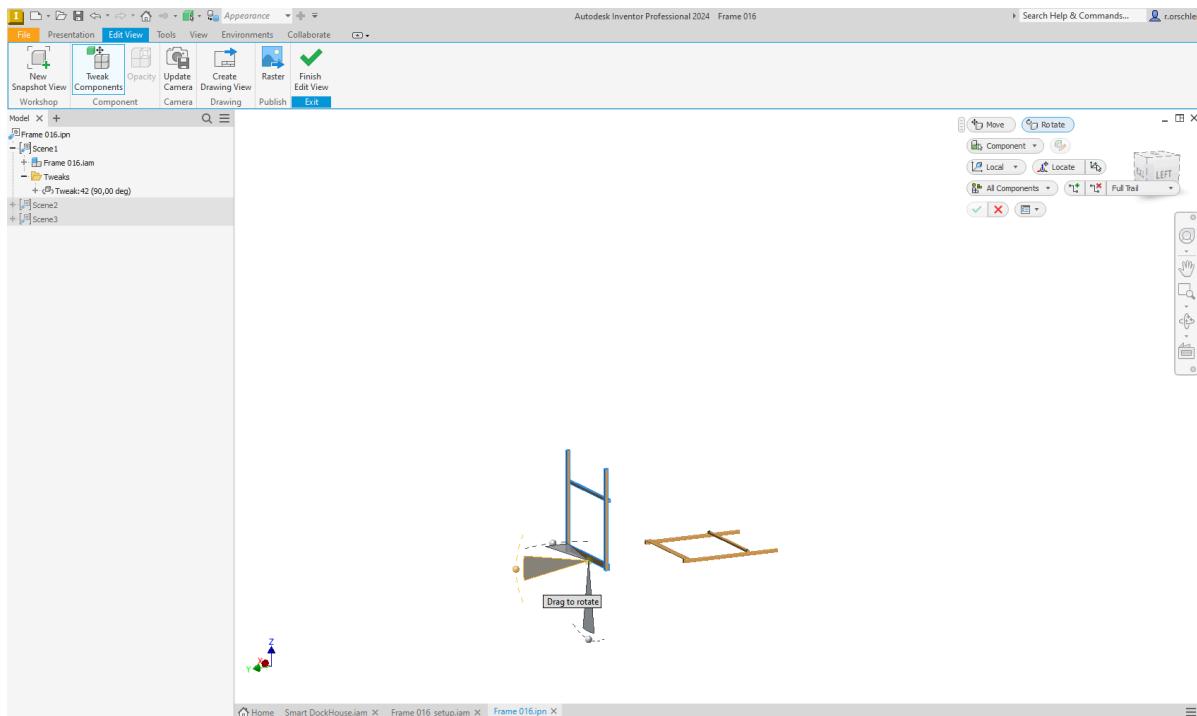
As every step usually has a side view and an isometric view in the idw.-file it makes sense to make **two views per step** (tweaked for isometric and no tweaks but all necessary parts for 2D). Having one with the tweak and one without the tweak. It is not always the nicest perspective to have the tweaks in the side view (2D). Repeat the already used commands for every view. Always make sure to **press the green hook** that everything gets saved and you do not have to start all over again!

Rotational Tweak

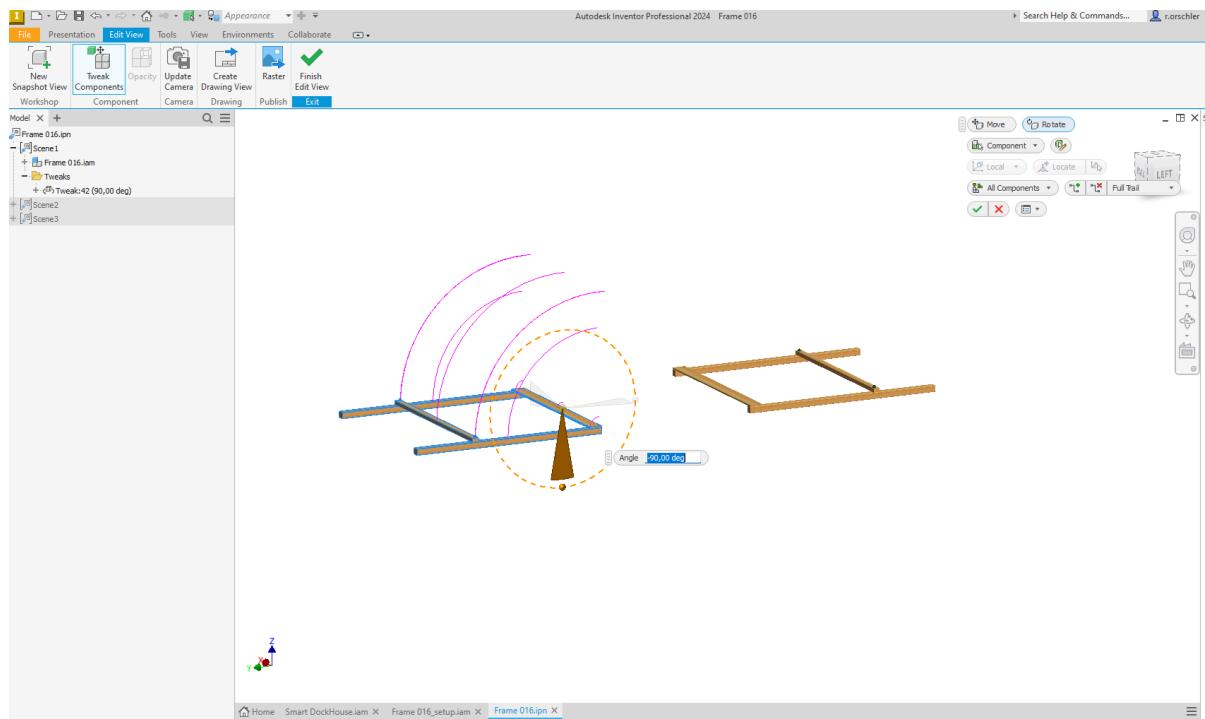
Apart from tweaking in a straight manner, we also have rotational tweaks. They are used to show the positioning of two frames towards each other. We lay them on the virtual ground and show that they need to be uplifted.



To rotate a whole frame press '**Tweak Components**'. Choose '**Rotate**' in the upper right corner. Select the necessary components and also mark '**Components**' in the corner. Choose '**Local**' and press '**Locate**' to find yourself a useful turning point for all the components.



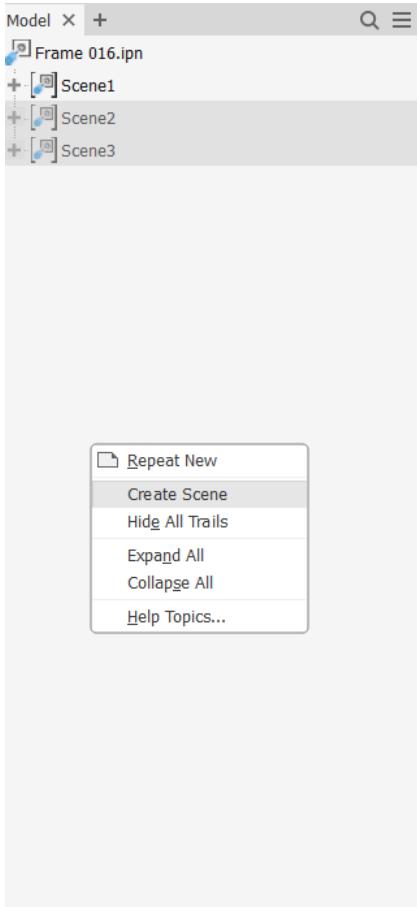
After having pressed on a spot your assembly hopefully turns around and you can choose the angle you want.



ALWAYS MAKE SURE TO PRESS OK AFTERWARDS AND PRESS FINISH EDIT VIEW.

New Scene

Besides creating 'Views', there is the option to create a scene. This is useful, if you want to insert another assembly, you might need for the manual. This could be a little sub-module. After having pressed '**Create Scene**', you will be asked to find another assembly in your folder structure to insert.



General Remark: If something changes in the assemblyfile the presentation file is linked to, I highly recommend to also go to the presentation file and make the new part that might has been added invisible in all the steps where it is not needed. Adding a part will cause, that it will appear everywhere - in every step.

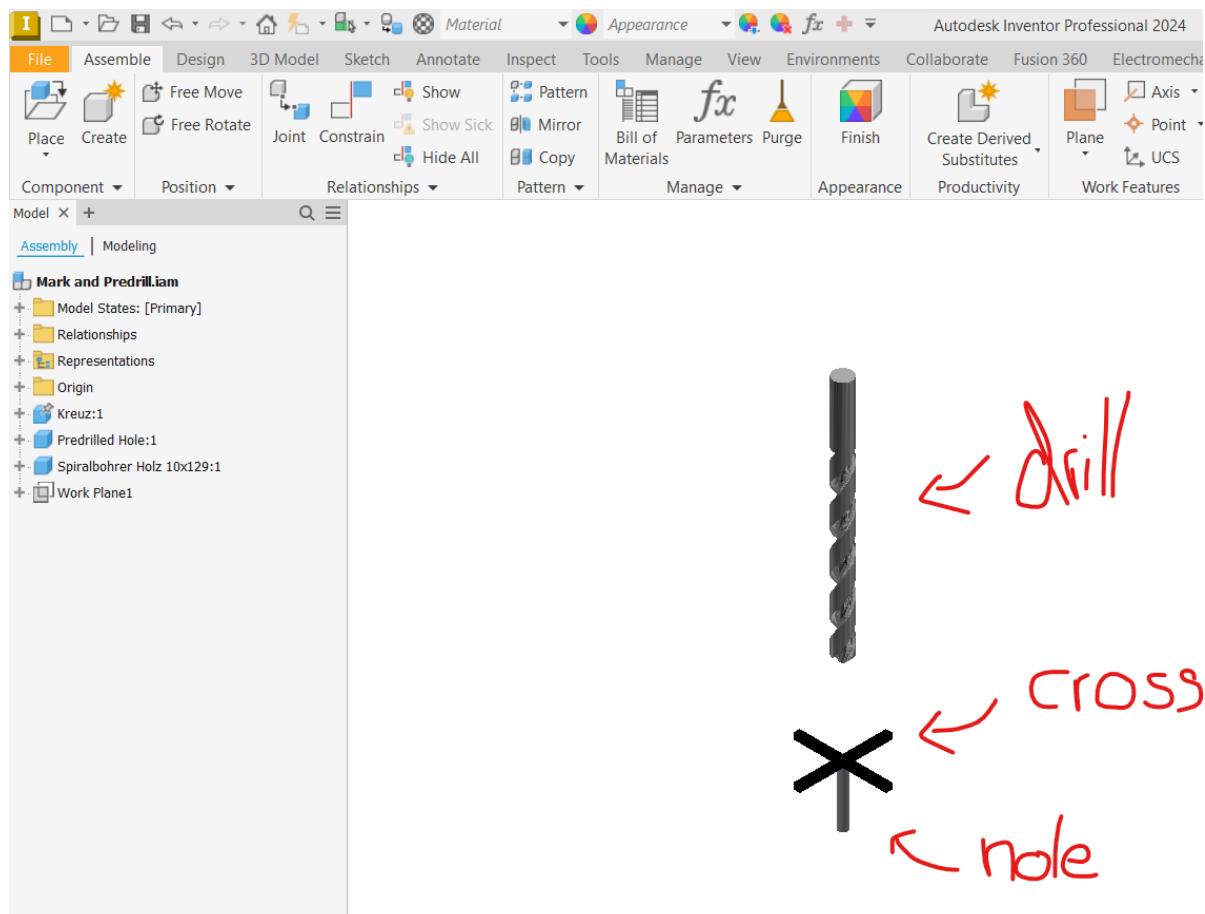
Set-Up-File

Now let's have a look at a set-up file. The file you might use instead of the modul for the already covered presentation-files above.

In the manuals we show where to pre-drill and before where the boards need to be marked at least on special occasions. For our recent project we wound up showing the predrilled holes (the ones the customer has to drill) on some occasions as we recommend pre-drilling before mounting. Therefore we created files with a drill, a cross (which stands for the pencil we recommend using to mark the spot before drilling it) and a hole. Experience showed that it was quite the effort to add these marks for all the used screws. We needed to do this, to not change the screw files which are linked to all our assemblies. However as you are not directly working with our library, I would recommend replacing all screws with an assembly including the screw plus drill, cross and hole. Because adding it by hand just for the set-up file is a huge amount of extra time and in the end we figured out that very often you did not need it in every spot and it was nearly invisible in the manuals being printed in DINA5.

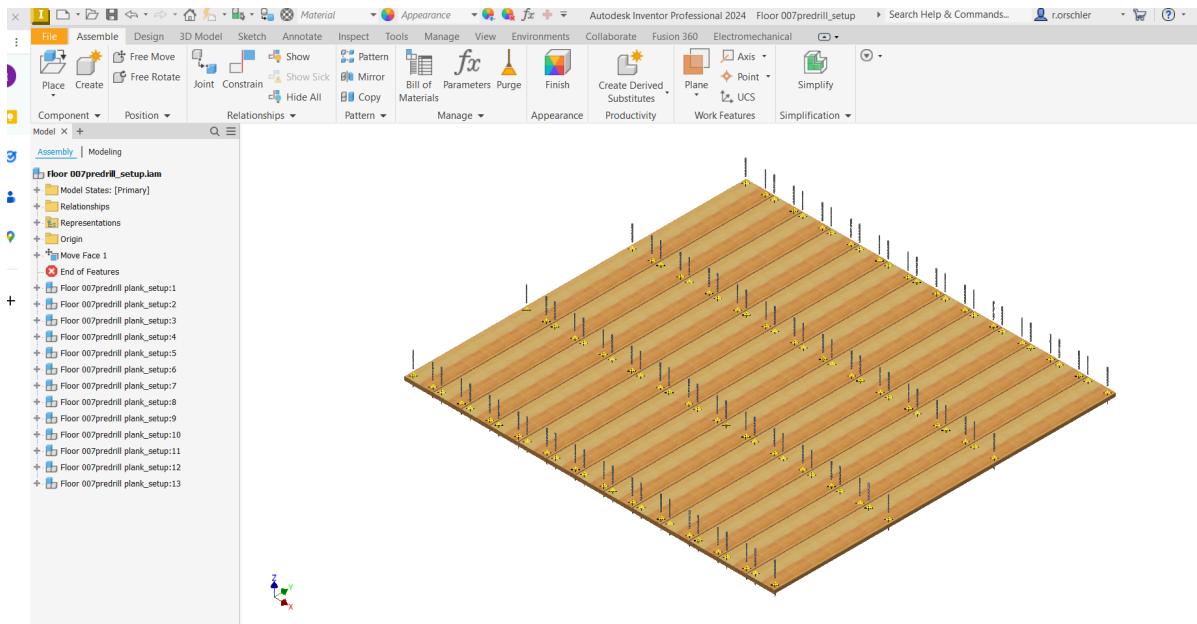
Name	Änderungsdatum	Typ	Größe
Individual Cover Page_Tower XXX	10.03.2023 12:53	Dateiordner	
OldVersions	15.03.2023 16:13	Dateiordner	
Floor 007	15.03.2023 16:14	Autodesk Inventor ...	122.615 KB
Floor 007	15.03.2023 16:05	Autodesk Inventor ...	485 KB
Floor 007_setup	15.03.2023 16:13	Autodesk Inventor ...	378 KB
Floor 007predrill_plank_setup	21.11.2022 10:21	Autodesk Inventor ...	208 KB
Floor 007predrill_setup	17.11.2022 09:10	Autodesk Inventor ...	386 KB

Here you see the assembly, we added to the module. Then it was saved as a set-up file in the manual-folder of the module. Basically Set-Up-Files just have the purpose to be a prepared file for the manual but being part of the whole tower assembly. Anyhow you should make sure that the basic module is the module which is also used in the tower. Because **if changes take place for the actual module they will not change in the set-up-file if there is no linkage! This will cause mistakes!**

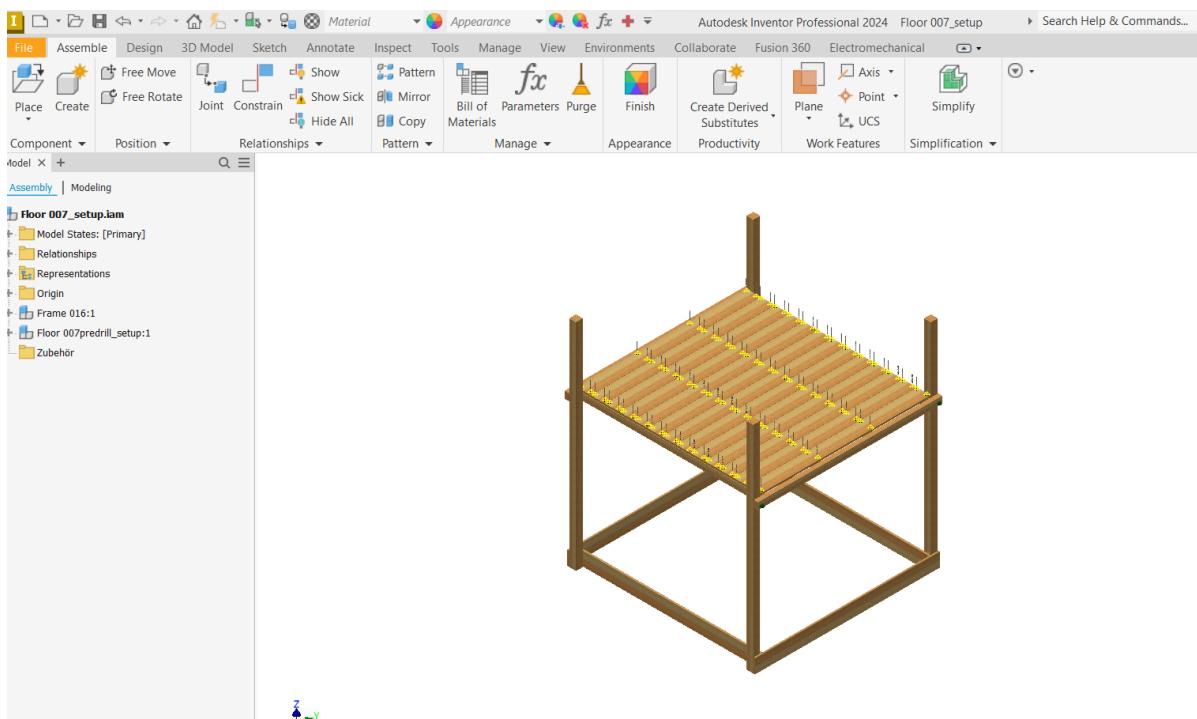


Here you see a prepared floor-module which now needs another set-up-file as it can not stand on its own. Please ignore the structure on the left. As mentioned, actually you should have a file called 'Floor 007' which is the exact used module and then you should

have many drill,cross and hole assemblies separately or you might have put the drill, cross and hole to your screw as an assembly. Then you would not need this set-up-file in total and just the second set-up file shown here below.

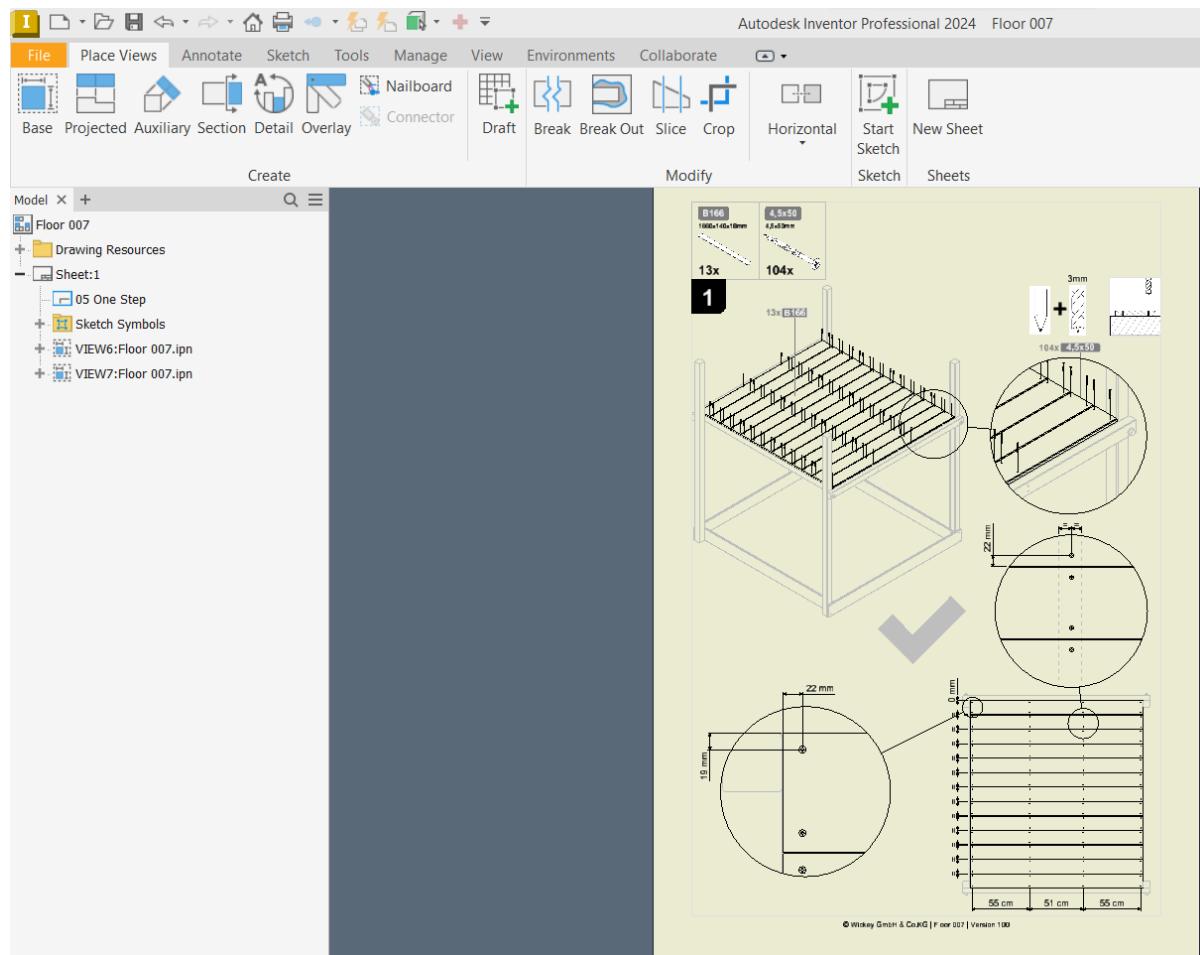


So this would be the final set-up-file you can work with. This would be the file you can upload into your presentation-file. And of course there are many drills and crosses that need to be made invisible.

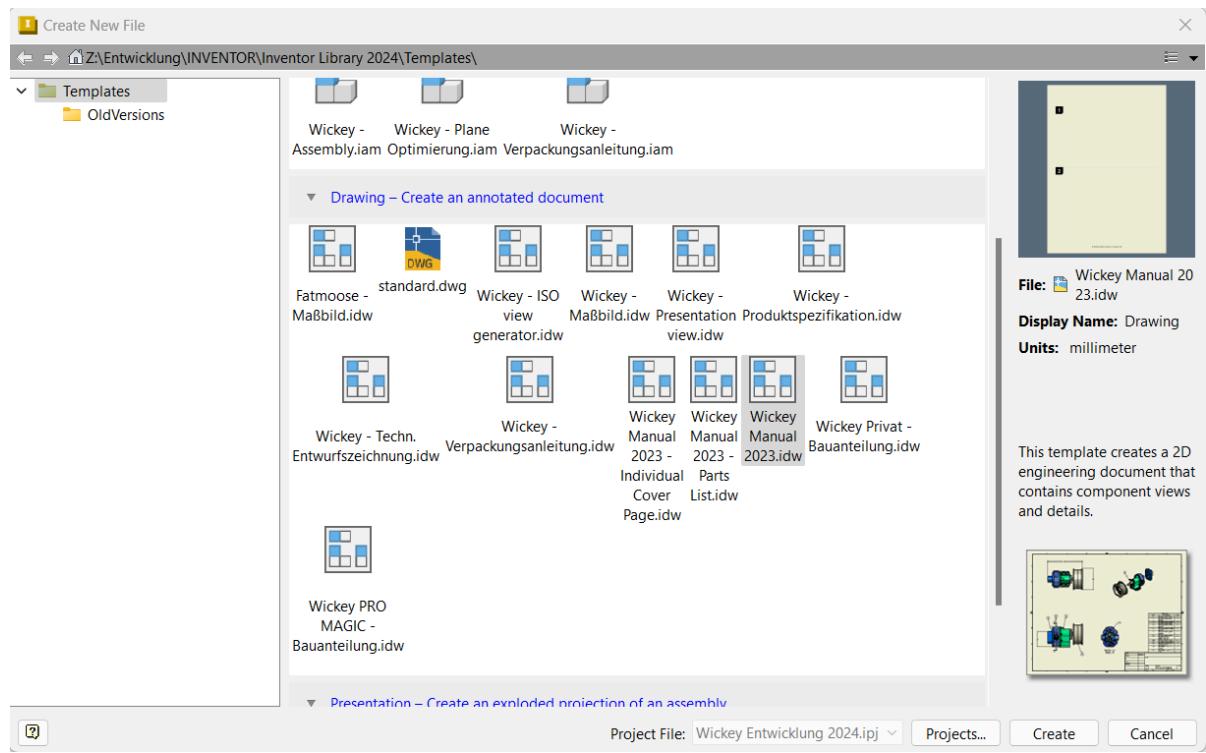


Modul-Manuals

Here you find an example of a module-manual viewed in Inventor.

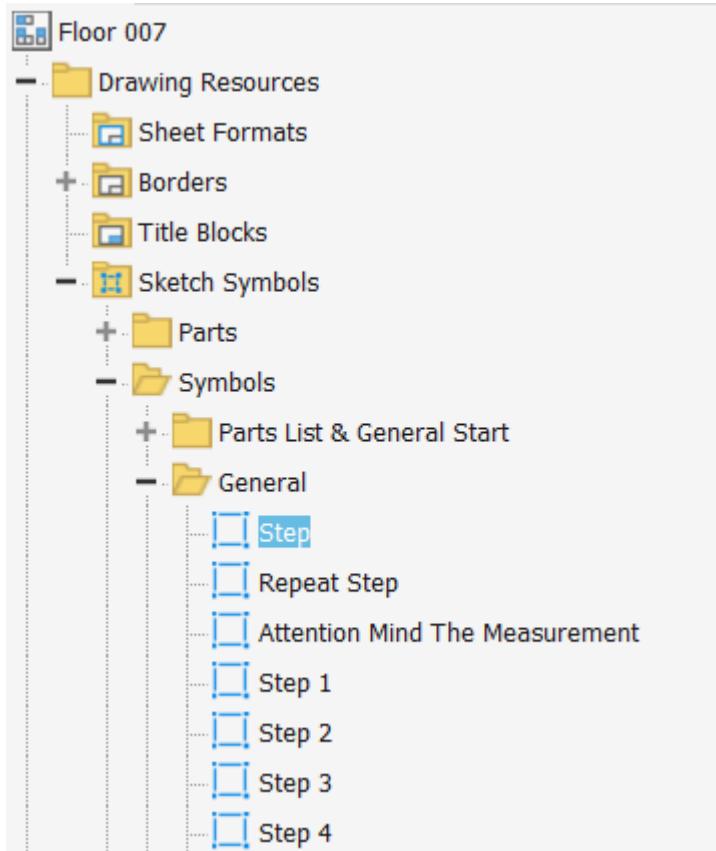


To start, go to 'File->New->New' and press 'Wickey Manual 2023'.

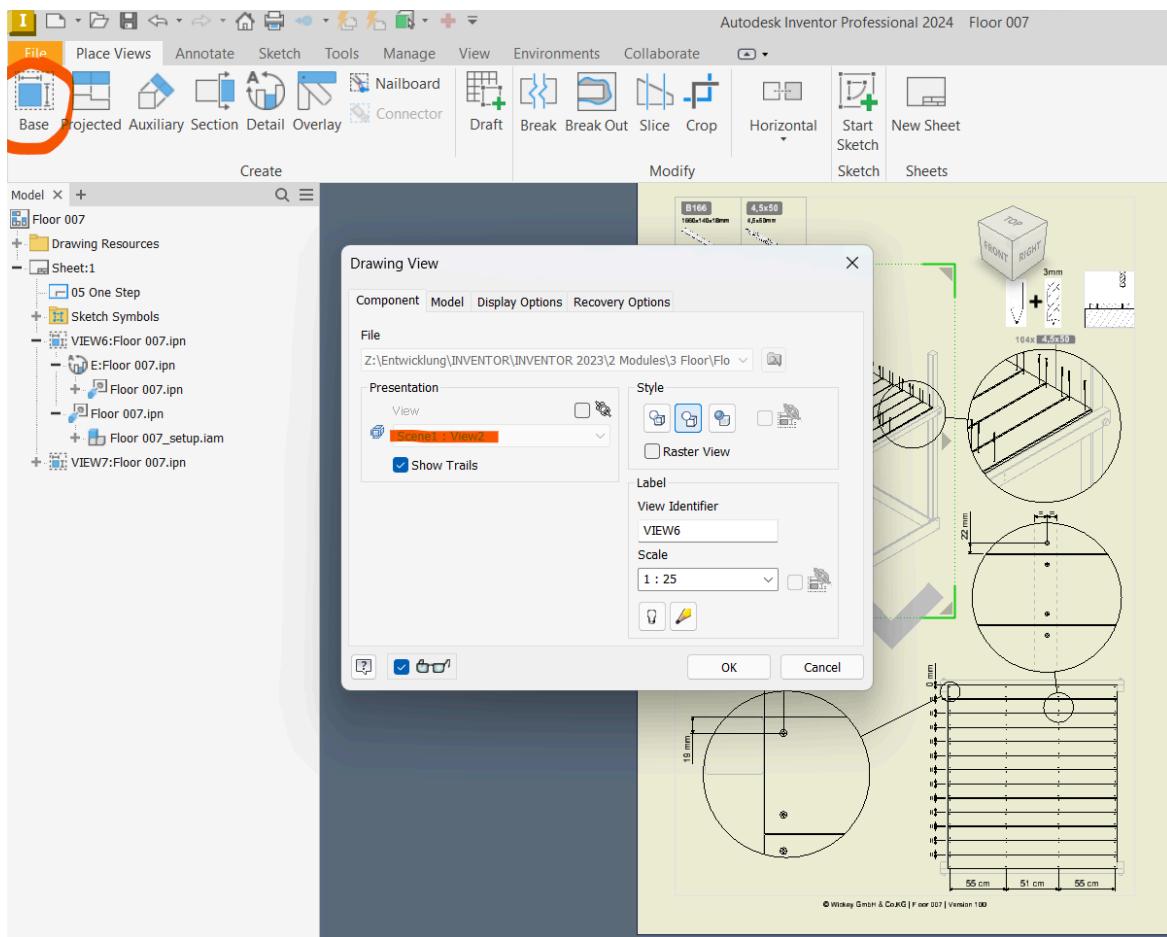


Adding More Steps

Also here you will need to add the used parts. But just the ones used in the module itself. For the first steps the step number is already added. However if you need more sheets, you will need to hover as already mentioned above the uppermost position of the data tree on your left, press the right mouse button and on '**New Sheet**'. To add a step having a higher number than 4, use the blue marked symbol and type in the right number.

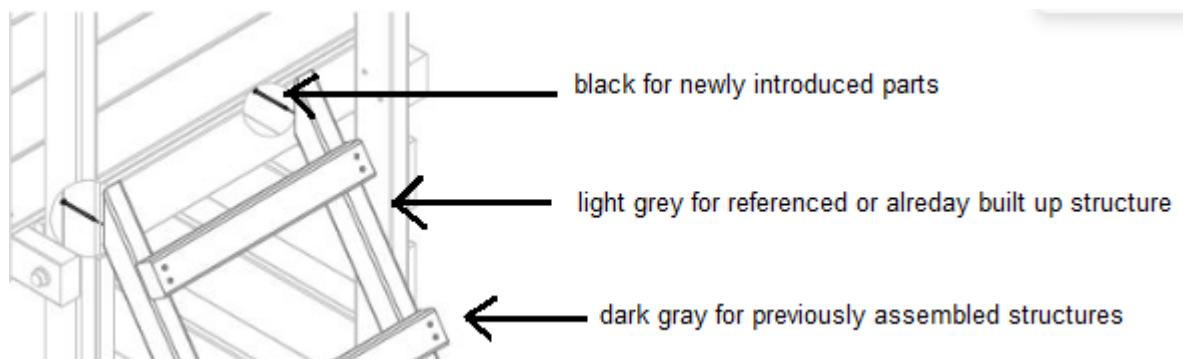


To insert a drawing view press '**Base**' and search for the presentation file you created.



Gray Scale Color Concept

The **reference frame** should be coloured in **light gray**. This should be the initial color, it will show up when you insert it. Every **new introduced part** should be **black**. If you **assembled a part in a previous step** and reuse it now, it should be coloured in **dark gray**. This is the general rule. However sometimes parts are not visible enough or need more emphasis. Then you can also vary with the tones as an exception. **Clarity is the overall goal.**



General Order

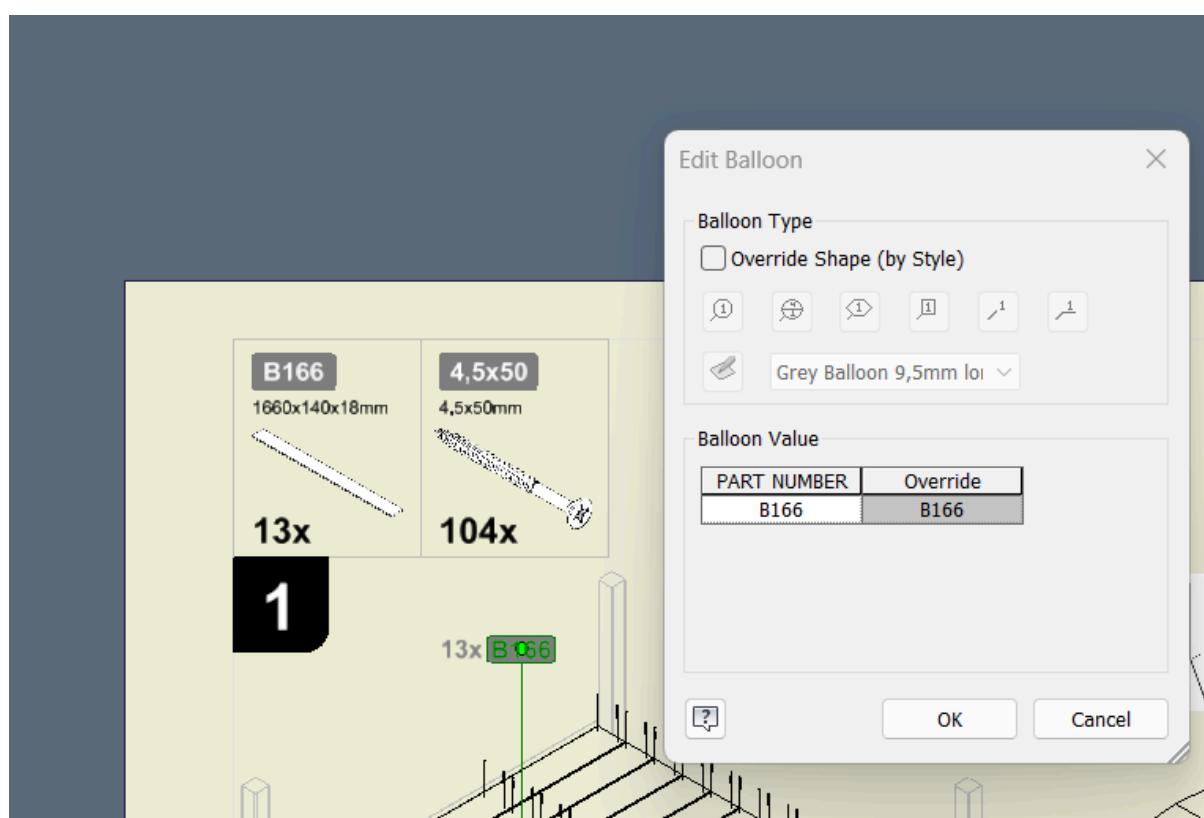
As you can see in all our PDFs, there is the tendency to have an **isometric view** on your **left** and a **2D-view on the right**. Here lots of Detail Views are used with connection lines. Be aware to place them so that the overall picture looks tidy and try to keep the **circular views in the same size**.

Sometimes you will need to prepare views in the gray area. For these you can not use the connection lines which are offered and you will have to use sketches to imitate the same look by sketching a circle heading with an extra line from a main view to the circular inserted Detail View.

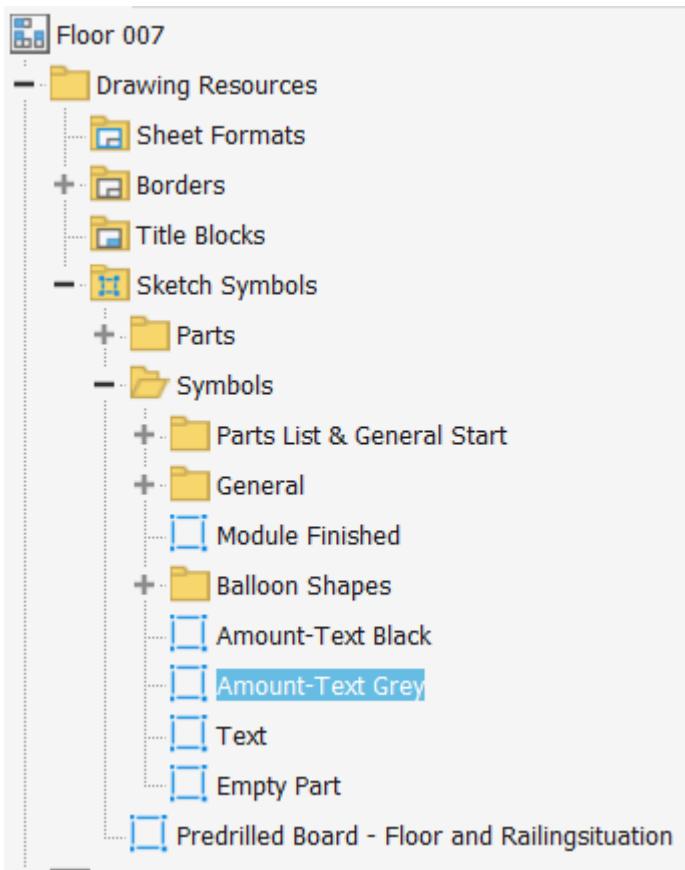
Balloons

Every newly introduced part has to have a **balloon** telling the customer the exact name which is used in the parts list. For some parts this is easy because the exact name will pop up using the Balloon. However other parts are custom made or just had too long names that they had to get a shorter name in the parts list. This especially counts for all parts beyond screws and wooden boards.

For this always check the name you find in the parts list. Then overwrite the name.



Next to the Balloon, if possible on the left side (if it fits) you will need to add the **amount** of the part being used. If it does not fit on the left side, place it centrally above the balloon. Beneath you see where to find the symbol to use to add the text in gray. If the part just is used one time, you do not need to add '1x' in front of it.

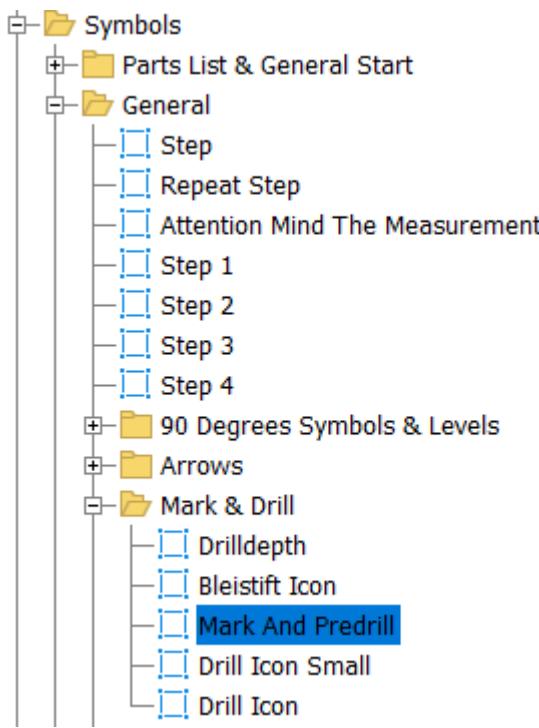


In general the **balloon** should be **positioned** there, where there is the most **clarity**, which part they are referencing. Referencing from an **isometric view** is **preferred**. For large **wooden parts** this means that you need to draw your balloon from the main isometric view as in detail they will be cut and this makes it unclear to reference them from there. However, **referencing small parts** such as screws, it is preferred to reference them from a **detailed view** as they appear more recognizable there. **Avoid cross-overs! Lines simply should not cross other lines or symbols!** If you encounter this in our manuals this still is not wished for!

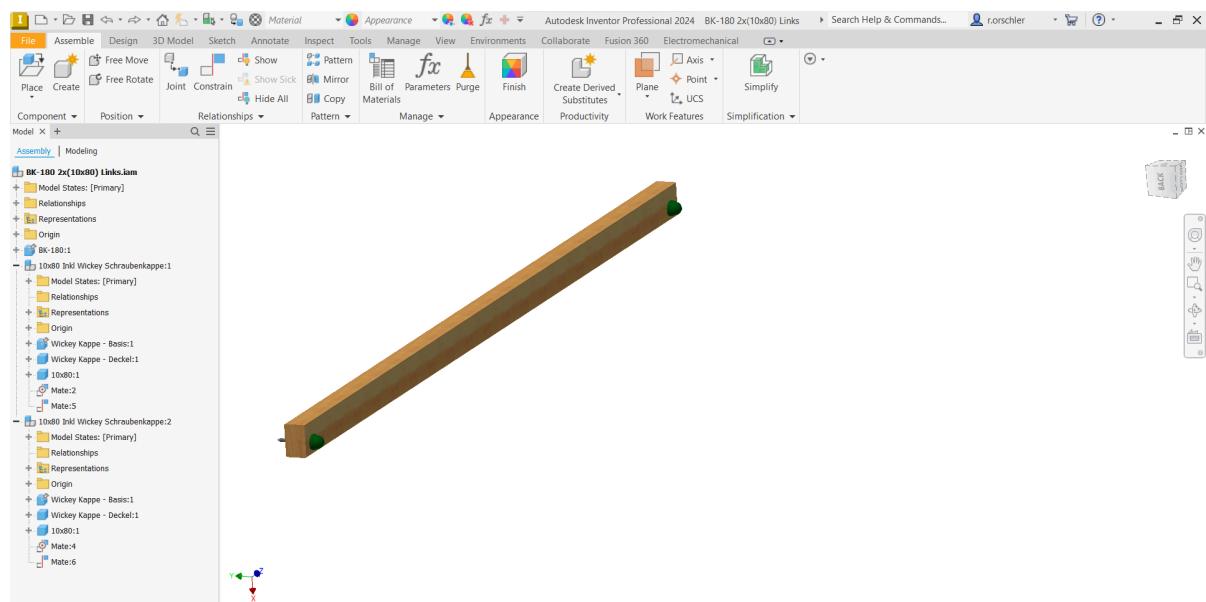
Make sure to show **all relevant measurements** and also the **distances from the border of the boards**. Therefore often followed up detailed views are nice. First you show the screws in isometric perspective and then you add a 2D view with the measurements.

Mark & Drill Icon

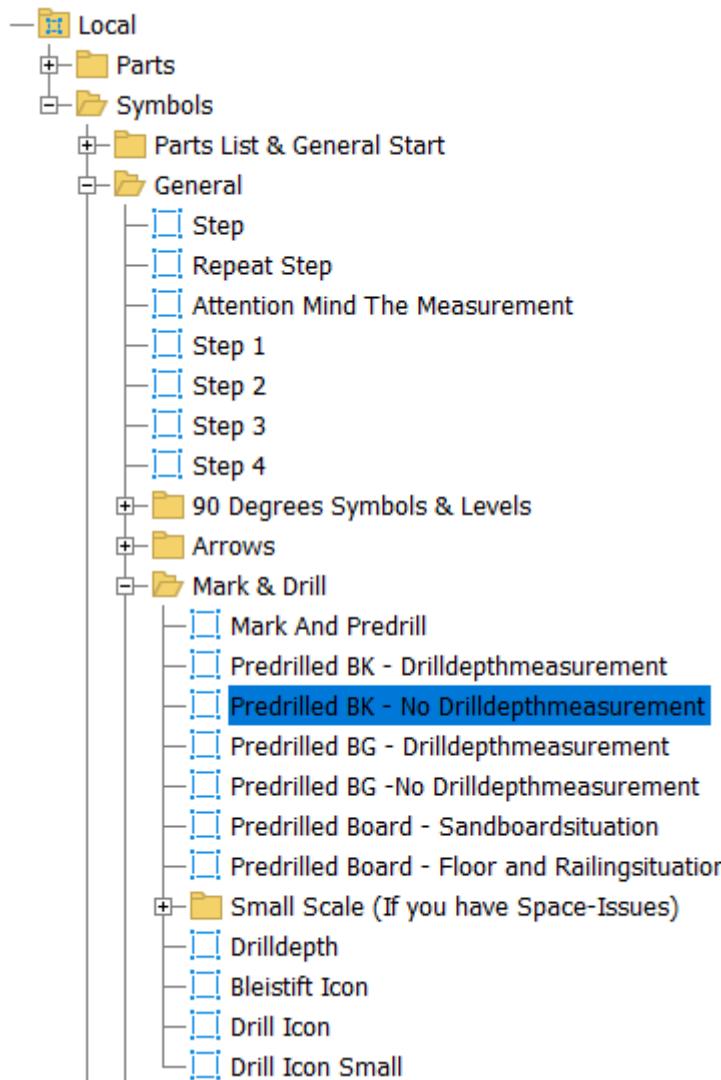
As mentioned before we add symbols about marking and pre-drilling wood. This should preferably be added to the upper right corner. See the 'Predrill-Reference-Table' (p.39) added above to know when you should add the symbol.



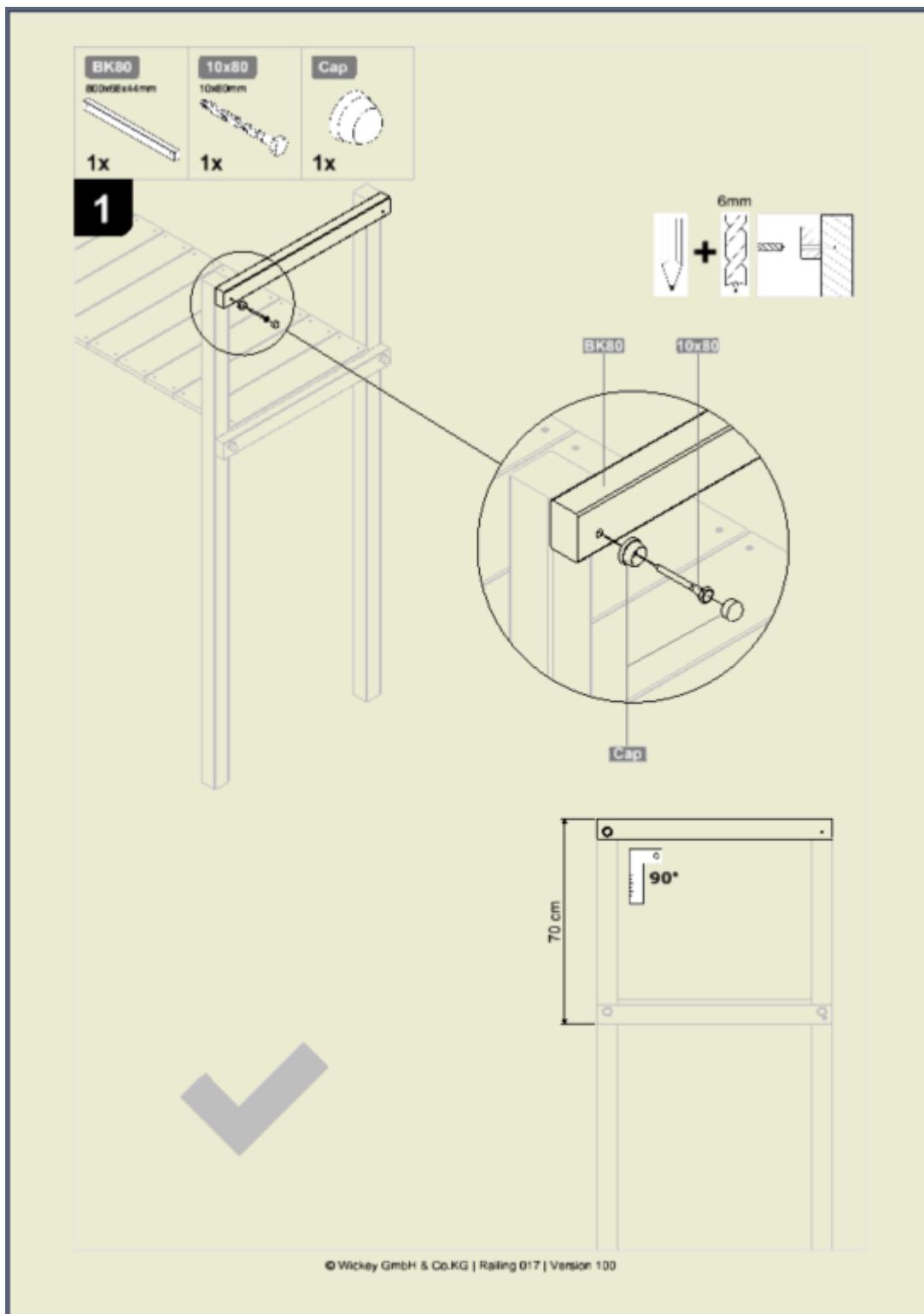
If you have many things happening in one step you might need more than one 'Mark And Predrill'-Symbol. If you use two, **which should be avoided**, you need to **separate** the step clearly visually to ensure it is clear, where to pre-drill with which diameter. Also we added **extra symbols** (Mark & Predrill -> Predrilled BK, Predrilled BG, Predrilled Board - Sandboardsituation, Predrilled Board - Floor and Railingsituation) for special occasions to clarify the **situation**. Sometimes just the board has to be predrilled and sometimes there already is a pre-drilled bar and you actually have to go through the hole and pre-drill its neighboring post. However not all situations are covered. If it is not covered, just use the Mark and Predrill Symbol. The bars I am talking about which come with holes are for instance the BK80 or the BK180. They come with **10mm holes**. They are necessary for the screws such as **10x80**.



Sometimes you might encounter a construction where this screw is placed in a different position than where **no holes** are existing. There you have to keep in mind to make an extra step to make clear that the **bar has to be predrilled with 10mm**. Further on you probably will be predrilling the neighboring post just with **6mm** according to the values you hopefully already encountered at the start of this manual.



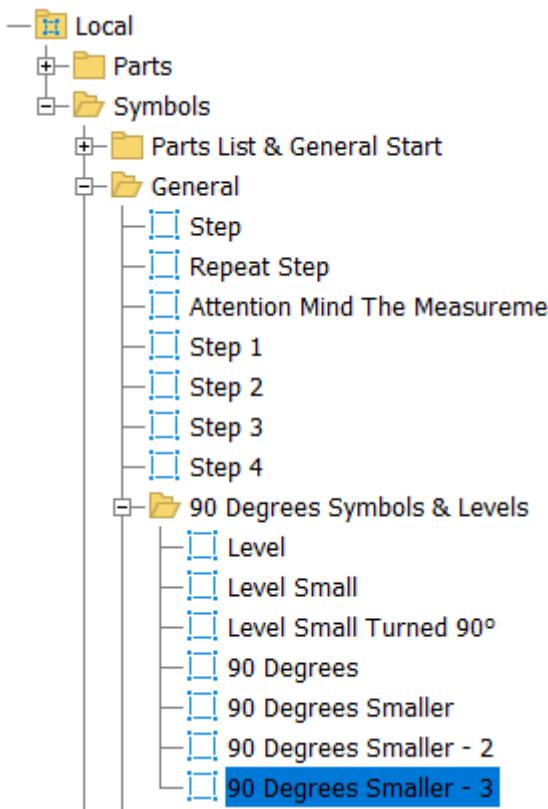
You find the symbols also in the 'Mark & Drill' Folder and you can choose between adding measurements about the depth or not. **In the majority of the time it is not necessary to add depth measurements.** If you have **space issues** check out the symbols in the '**Small Scale**'-folder.



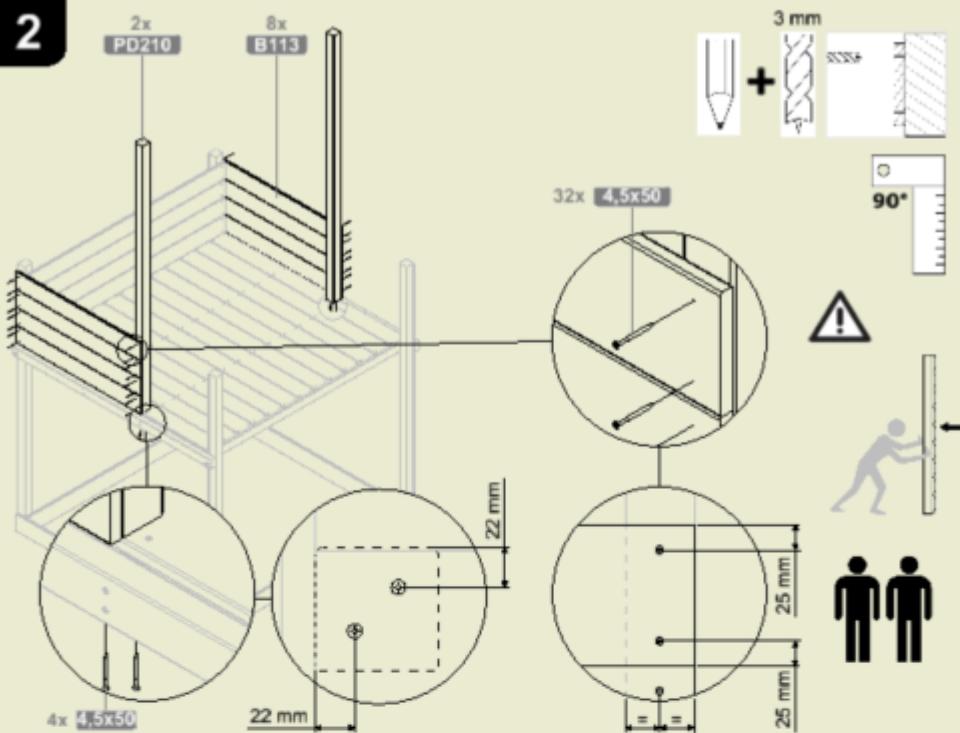
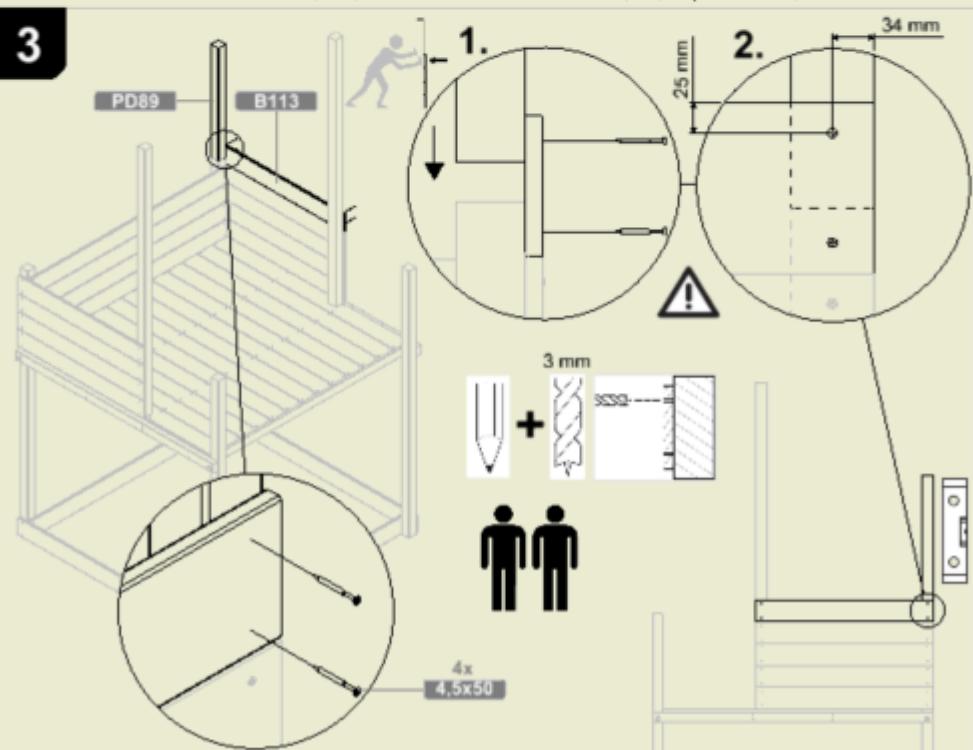
Rectangular Signs/ Two People Icons/ Symbols Against Leverage Problems and Importance

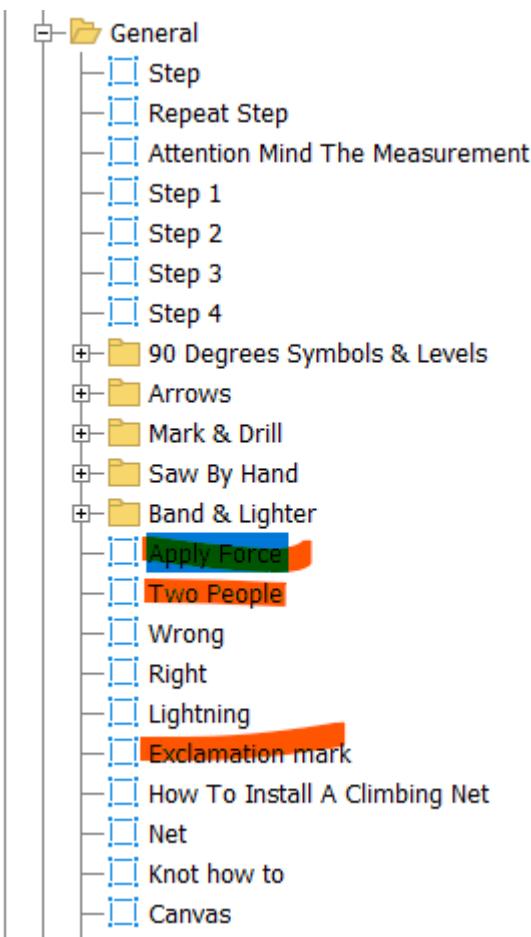
Very important especially for **frame-like structures** is to add that parts have to be perpendicular to each other. Do you recognize the **90° degree symbol** here? Please add this when you encounter rectangular structures. Usually adding it more often does not

hurt. Here you find 90° degree-symbols **in different directions** and **water level-icons** too. You will have to search your way through the 90 degree icons to find the matching one. The plain big 90 degree symbol is meant when there is no opportunity to place the 90 degree symbol on a 2d-view which would be the case if there is just an isometric view in one step visible.



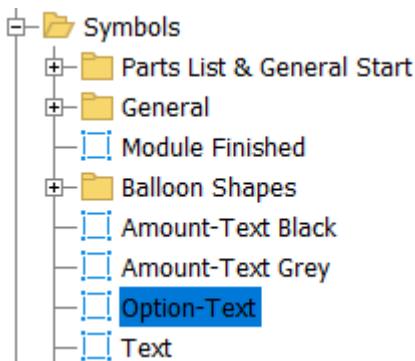
Here you find an example where the big 90°degree symbol is used. I took this example to also introduce you to some other specialties. So here for example you encounter a certain danger that boards crack due to the law of leverage (especially in the situation when you have a row of boards and mount the uppermost causing a huge leverage). Therefore a **second person** is necessary to hold against the applied force when things are screwed to the post. And the triangle with an exclamation mark, marks the importance. I marked the names of the symbols beneath for this.

2**3**



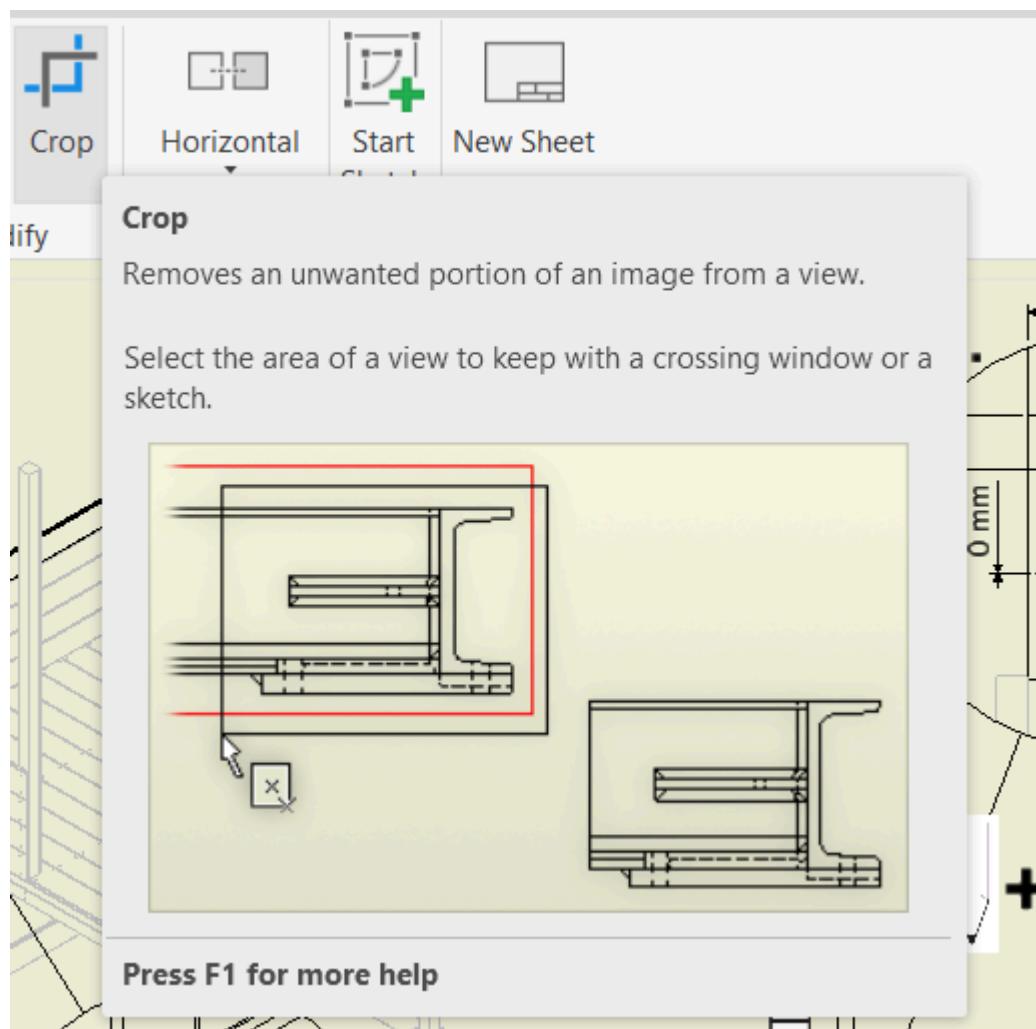
Option Text

To refer to options or which mini-step in the step itself comes first, you can use the following symbol or use **Arial 5mm bold** as a text format:

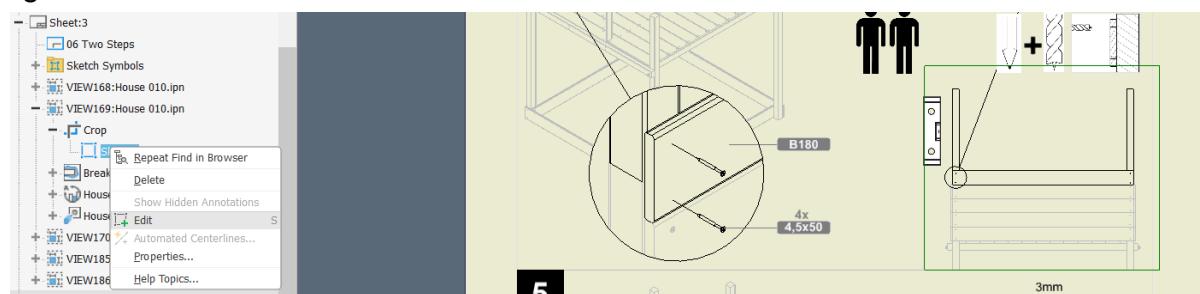


Crop Tool

And another tool not mentioned yet is the crop-tool. It is used here to reduce the view to the important information without having to reduce the scale to show the whole tower.

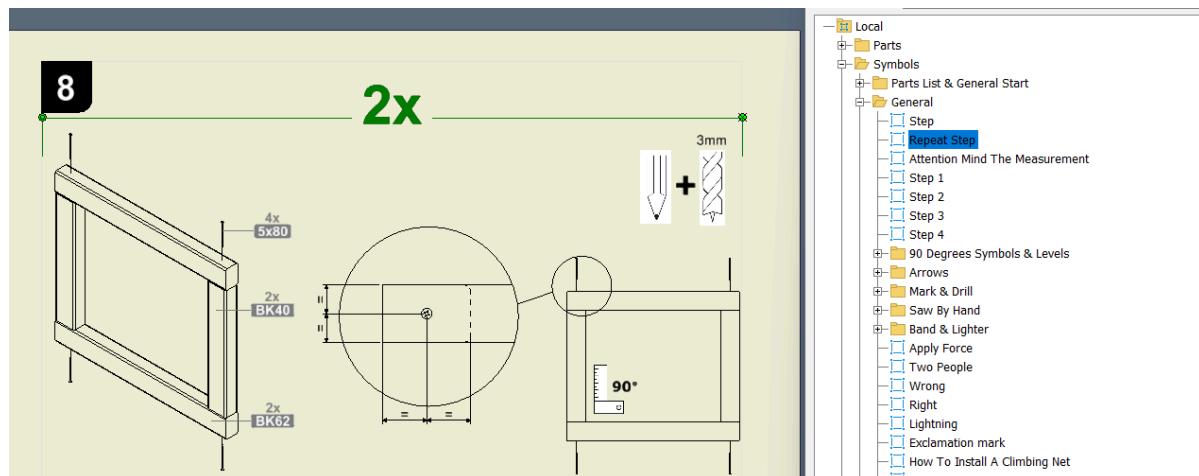


Be aware that you **can not change** the **angle** of a drawing after having used further tools on it such as the '**Crop**'-command. You have to go to the tree and **delete the command to change** this. If you just want to **change** the **crop** itself, **unfold the crop** and use the **right mouse key** while hovering over the sketch which automatically gets created when you are making a crop and choose edit. Then you can change the size again.



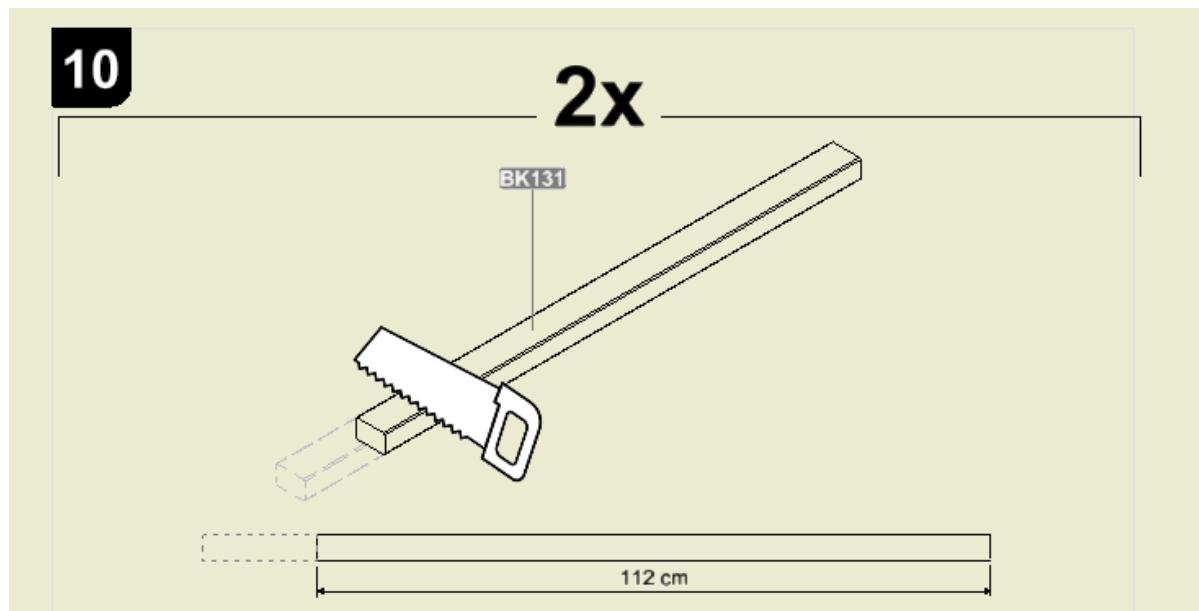
Repeat The Step-Symbol

Sometimes it saves time to say that a step has to be repeated twice. This is how this looks and where you would find the symbol for this.

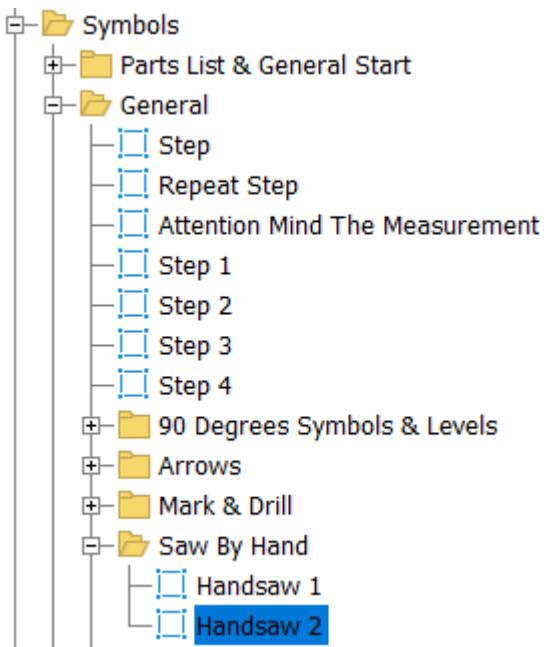


Saw Symbol

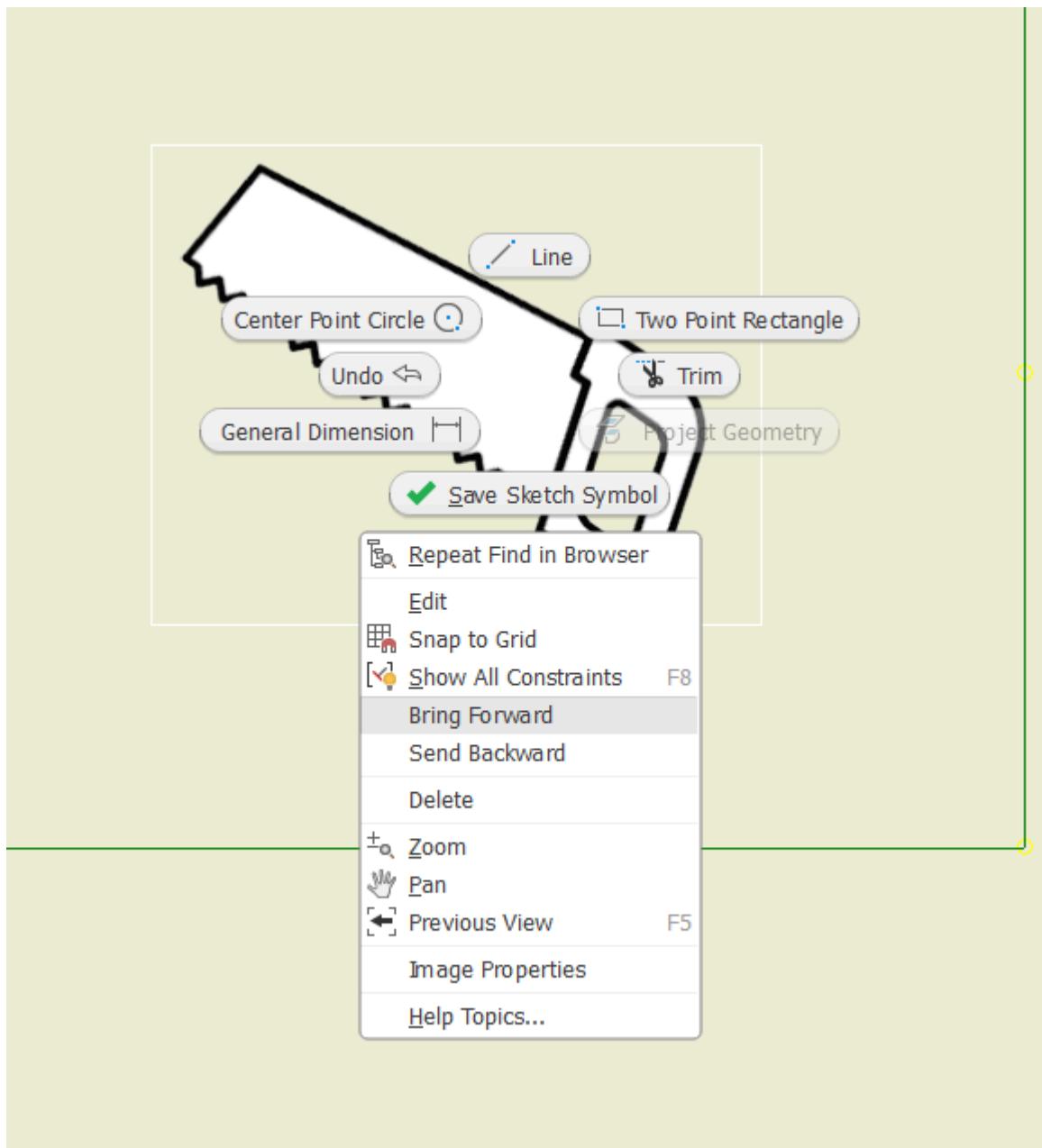
Sometimes our profiles need to be sawn by hand. This is how this would look:



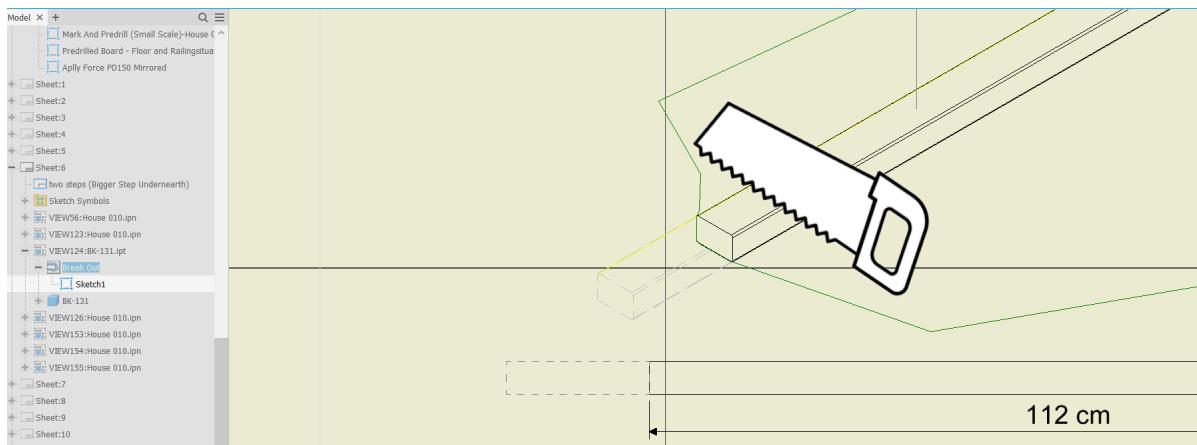
If you encounter that the handsaw-icon is intruded by the lines of the view, you need to go to the **definition** of the icon. Use the **right mouse button** on it and press **edit**.



Then hover above the symbol also pressing the **right mouse key** and choose '**Bring Forward**'.



The extra dashed lines (beneath) you get by overlapping **another** view with the main view. For the added view you need to change the **properties** (p.91) as already shown (p. to you to **dashed** and **gray** of the outstanding wood that needs to be sawn. Here the manual worker used a '**Break-Out**' to position the two views next to each other without having lines not directly covering each other.

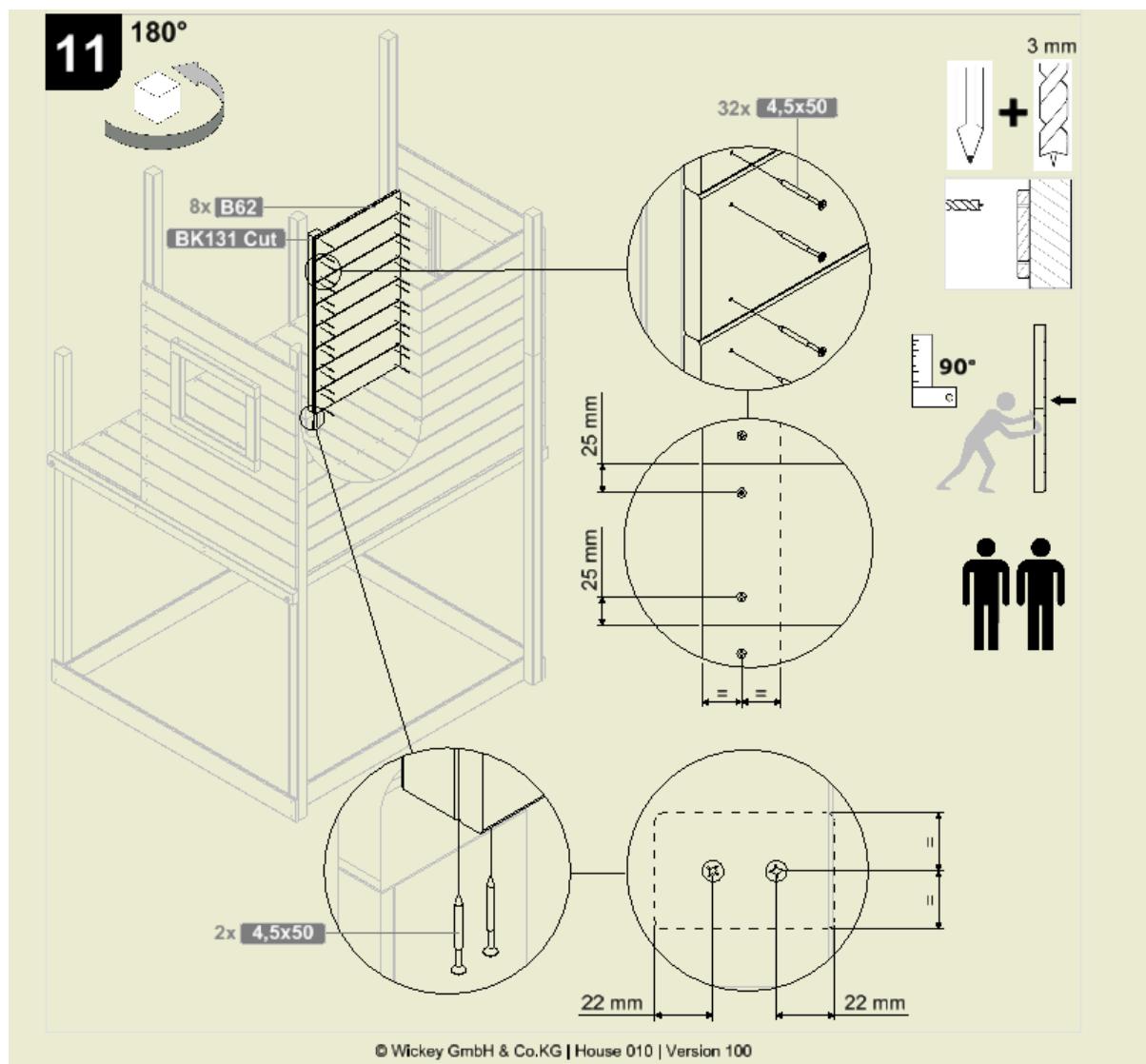


Naming Hand Sawn Parts

As you see below, when a cut part is referenced in the following steps it gets an additional '**Cut**' behind its **actual name**.

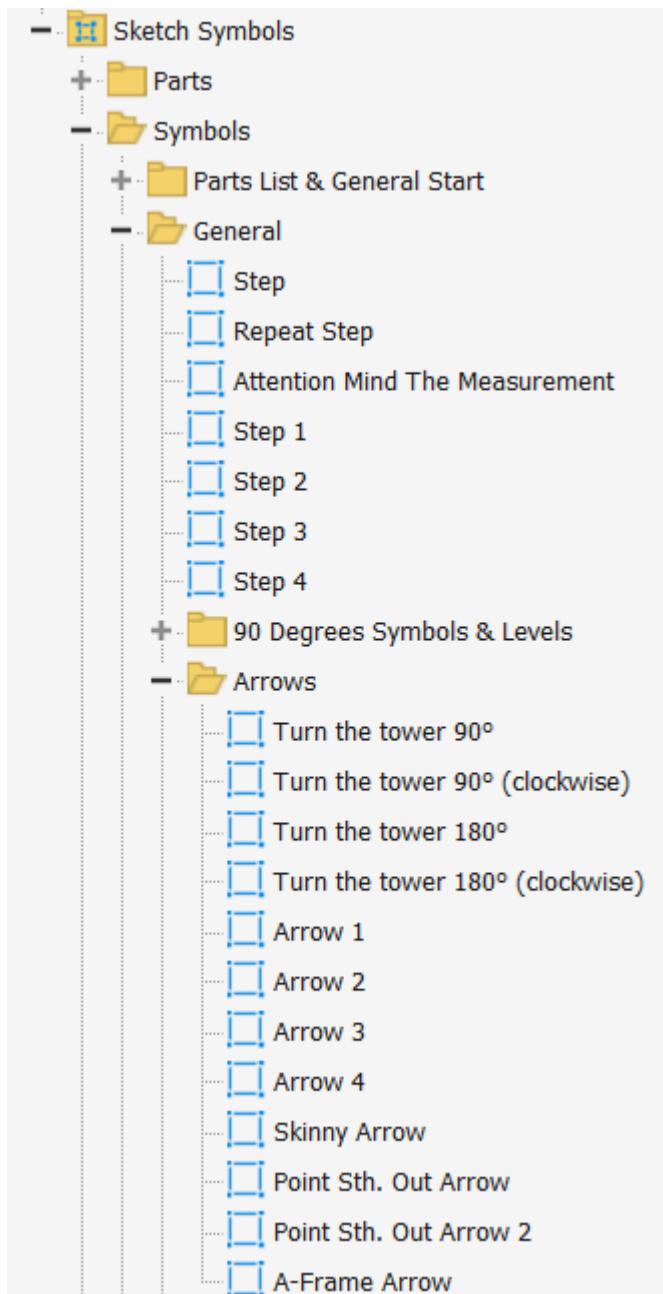
Turning Symbol

And when a tower is turned throughout the manual as the different view is more optimal we use the symbol you see here on the **left upper side**. Usually it should be positioned there. We have different turned arrows and differ between **90°** and **180°** degrees. You find the symbols under '**Arrows**' in our symbol library.



Arrows (for instance showing that sth. needs to be lifted)

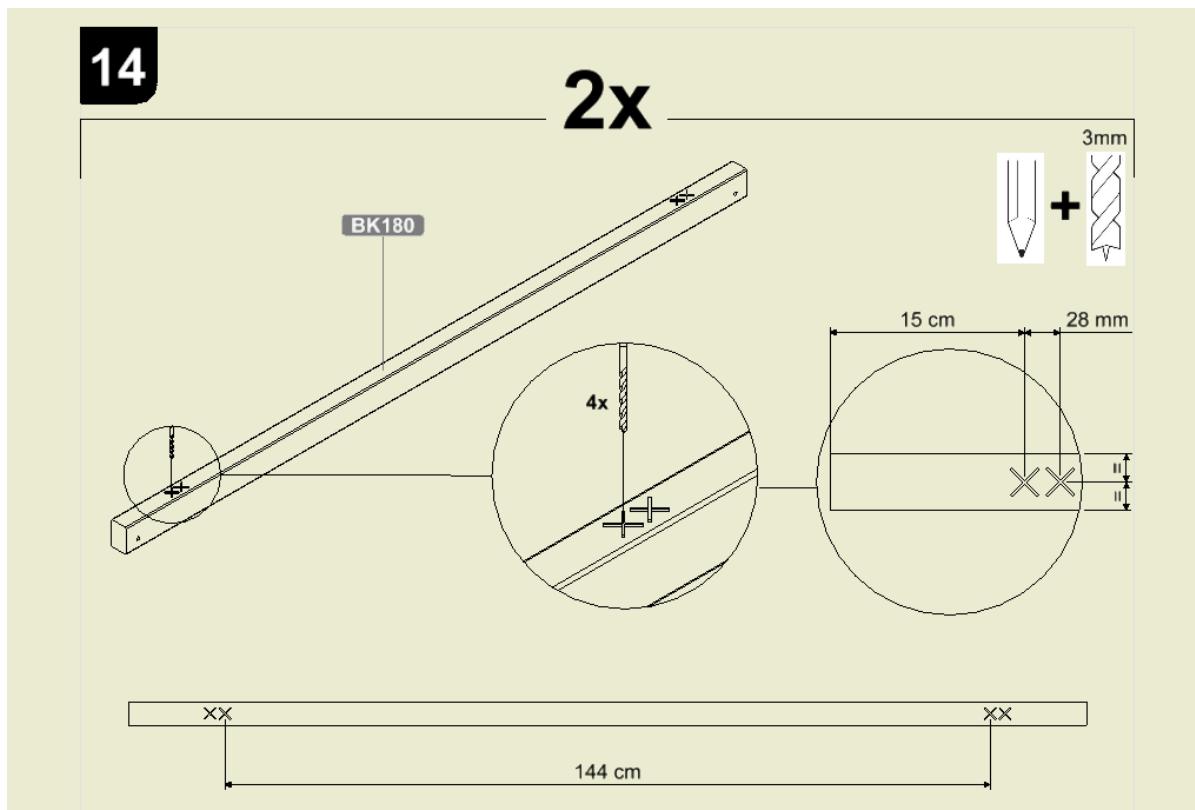
Here under '**Arrows**' you find the mentioned symbols. And also the arrows that you need to show that a frame needs to be uplifted. Simply all kinds of arrows. You will just have to find your way through the whole library.



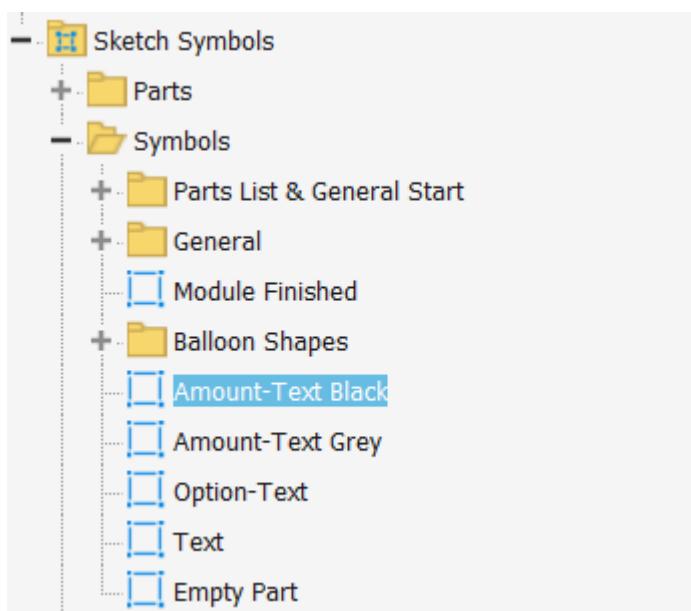
Extra Pre-Drill Steps For Special Situations

Here you find one of the special situations where we would use an extra step to **show** where you need to **predrill** exactly. So here the **crosses** mentioned before are shown plus the drills that come with the used 'Mark and Pre-drill'-Assembly. All the other drills were made **invisible** in the **presentation file**. It is important to try to make everything invisible in the presentation-file **not in the idw.-file**. This is more **resistant** to updates. Because if you make parts invisible in the idw.-file, they show up again when a drawing is updated. If you make the lines invisible in the drawing, this is not easy to change. I am not sure if it is changeable as I never found out how. So if you make **lines invisible** be sure that you will **never need them again**. This really should be just your **last option**.

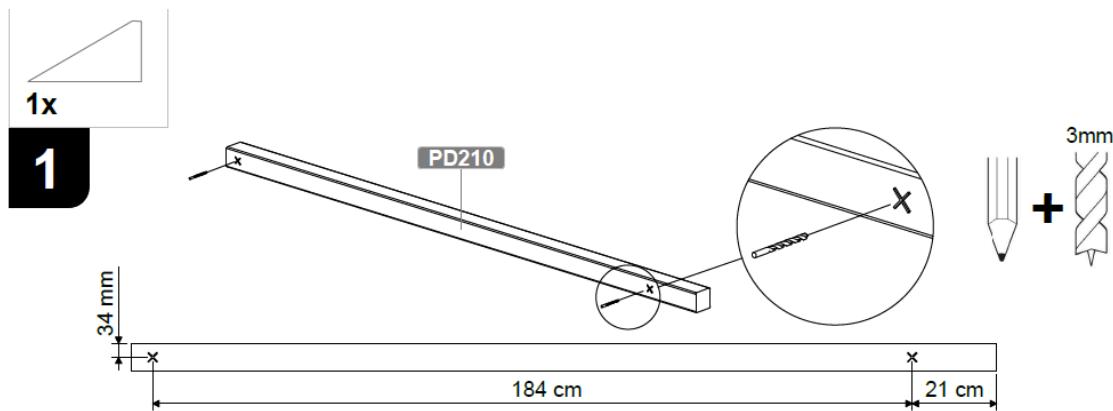
Anyhow as you see, we have the part with the **marked crosses** and a **tweaked drill**. Then a **detailed view** is added. In this detailed view, the **amount** how often it is necessary to **pre-drill** the bar is added with the symbol called **Amount-Text Black**.



Beneath you find the used symbol for this marked in blue:



If we just need to **predrill once** or **twice**, we just would show our **two drills** leaving out the amount as shown here. All would be shown in the isometric view.



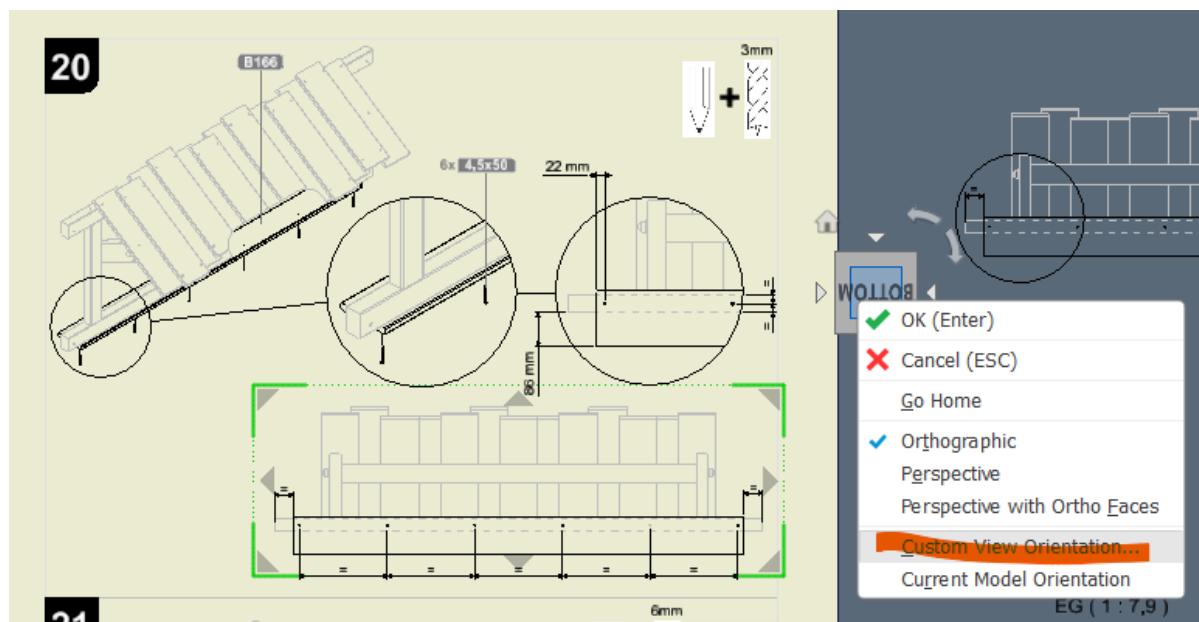
Views (Isometric and Custom Made)



In general we try to stick to the **isometric view** (pressing a corner on the dice to generate this view) and turn the assembly around that nearly everything that is relevant per step is seen.

Sometimes though we use **custom views** as the isometric view tends to hide a lot of necessary information. Therefore double click on the view that needs to be changed. The dice should appear. Then click on the dice with the right mouse button. And here you see the command '**Custom View Orientation**'.

This will lead you to the **presentation file**, where you can turn around hopefully the intended assembly to the view of your liking that makes the most sense without destroying the overall picture of the manual. Tidiness is also key but first comes clarity! Sadly there sometimes is a bug showing you something in the presentation-file that just makes you guess the view you want.



Sub-Modules (Copy & Paste-idws)

- █ 1 Products
- █ 2 Modules
- █ 3 Sub-Modules
- █ 4 Parts and Pre-Assemblies
- █ 5 Rendering and Steps
- █ 6 Infomail

Dieser PC > Abteilung (Z:) > Entwicklung > INVENTOR > INVENTOR 2023 > 3 Sub-Modules > Doors > Door 1260x530 (BG151 + BK148)_R

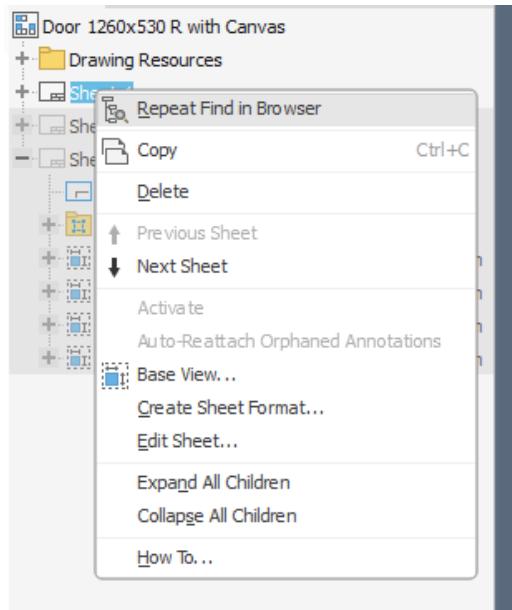
Name	Änderungsdatum	Typ	Größe
Manuals	29.03.2023 08:53	Dateiordner	
OldVersions	07.03.2023 08:36	Dateiordner	
Parts	19.12.2022 09:53	Dateiordner	
Door 1260x530 (BG151 + BK148)_R	07.03.2023 08:36	Autodesk Inventor...	366 KB
Info	22.09.2022 11:41	Textdokument	1 KB

Besides **modules**, we also have assemblies called **sub-modules**. If you are lucky we already made a module-manual for them and you can just **copy** and **paste** steps. Sub-modules do not have their own manual but they are just grouped together to ensure a quicker build up in Inventor but as there are certain steps that need to happen in dependency with another module, they **can not stand alone** for themselves without destroying the clarity of the manuals. This is the case for our doors in the stilt-house manuals for example.

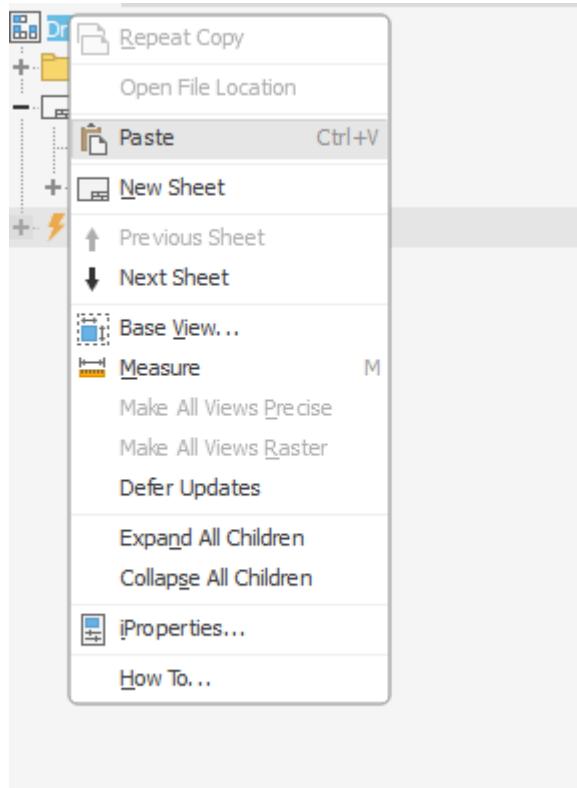
Copying Whole Sheets

Go to the sheet that you want to copy with the **right mouse key** and choose **copy** from the list.

You can not copy the sheet into the same document, but you can copy it to another one and from there back to the original document if that is necessary. So open a new template of the 'Wickey Manual 2023' for this.

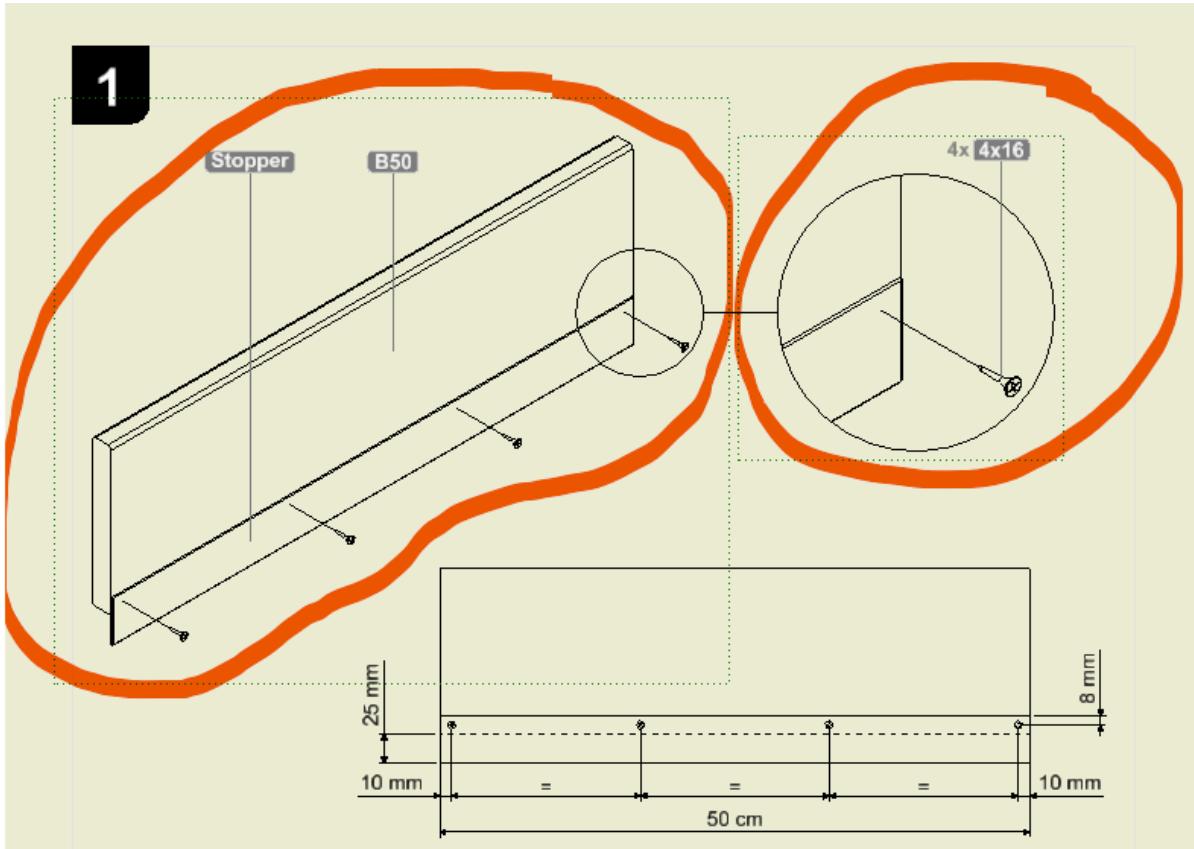


Then go to the document, hover over the main file in the tree, press the **right mouse button**. There you will find '**Paste**'.

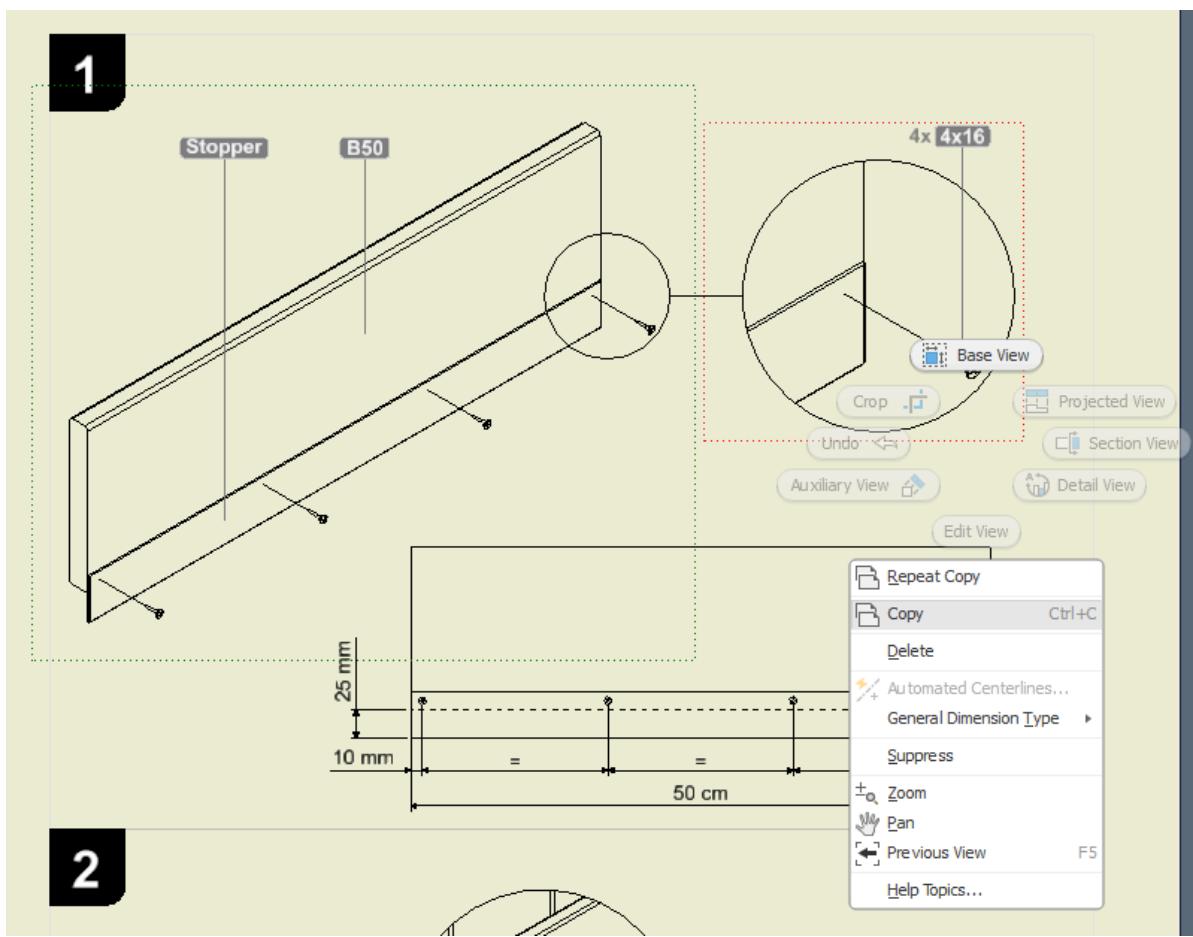


Copy Single Steps

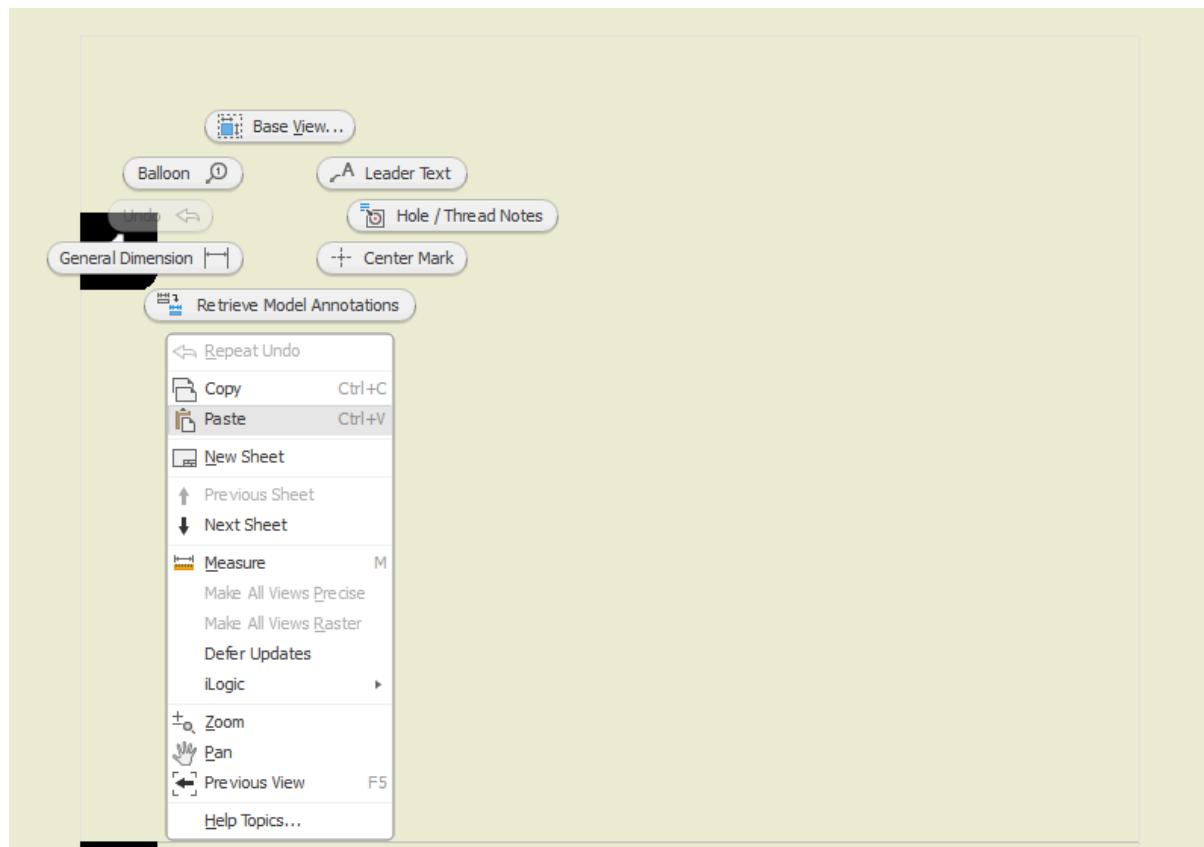
To copy views, especially when you have one that is **dependent** on another, you have to choose all related views. If you do not choose the bigger view, you can not get a hold of the detailed view.



Then press '**copy**' with the **right mouse key**.



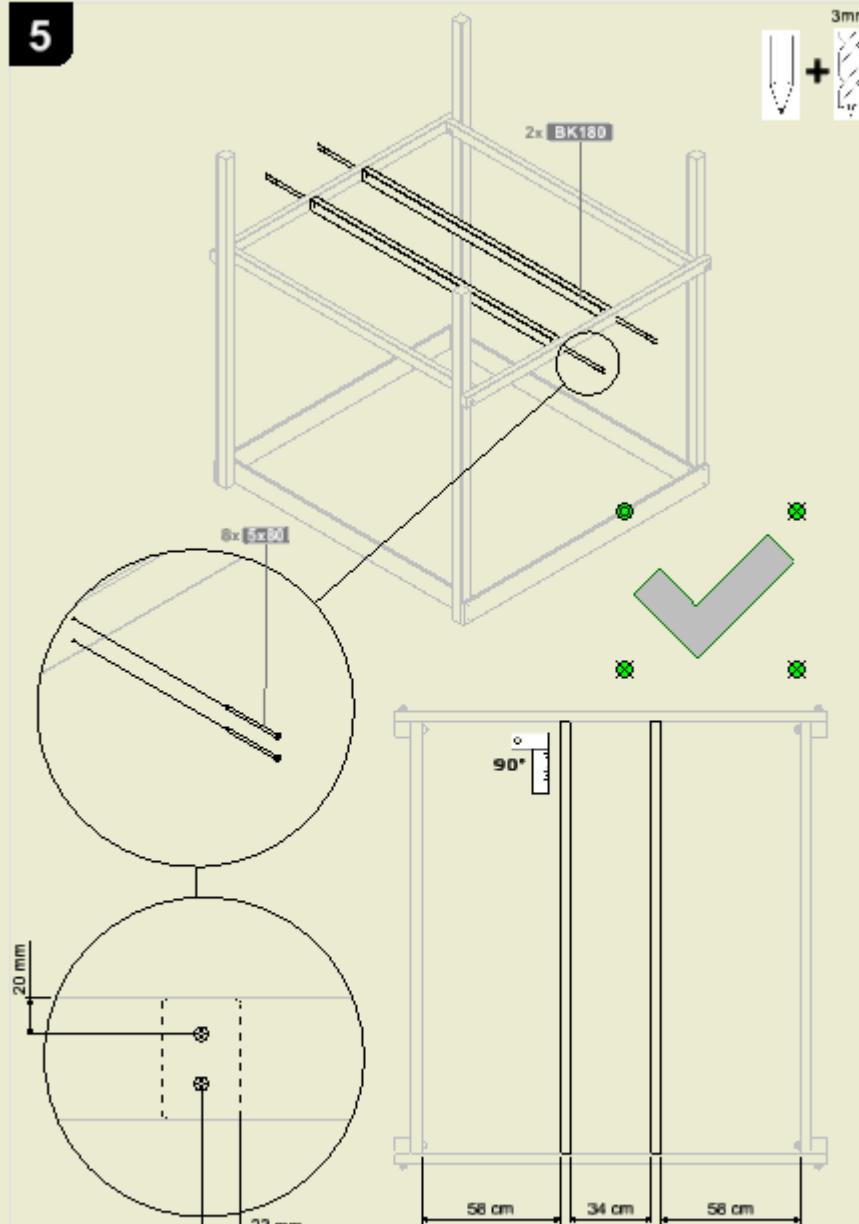
Then press the **right mouse key** and '**Paste**'.



Finish Modul Manual

Everytime you finish a module, add the symbol '**Modul Finished**'. When you have enough space, seize the chance to show the whole built up module in black in an isometric view plus the reference in light gray. Usually you will not have enough space. Then just add the symbol to your last step to mark the end.

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Frame 001

- Drawing Resources
 - Sheet Formats
 - Borders
 - 01 Wickey Title Above Tower
 - 02 Individual Cover Page
 - 03 Which Tools Are Used
 - 04 Neutral Title Page
 - 05 One Step
 - 06 Two Steps
 - 07 Two Steps (Long Parts List)
 - Default Border
 - Title Blocks
 - Sketch Symbols
- + Parts
- Symbols
 - + Parts List & General Start
 - + General
 - Module Finished**
 - Balloon Shapes
 - Grey Balloon 3,5mm long
 - Grey Balloon 8,5mm long
 - Grey Balloon 9,5mm long
 - Grey Balloon 11mm long
 - Grey Balloon 14mm long
 - Grey Balloon 15mm long
 - Grey Balloon 15,5mm long
 - Grey Balloon 16mm long
 - Grey Balloon 18,5mm long
 - Grey Balloon 19,5mm long
 - Grey Balloon 20mm long
 - Grey Balloon 20,5mm long

