

Fischertechnik-Designer Tutorial

Content:

Cable connection between connectors 2 (easy)

Hose Manager (not so easy!)

Create movements / Movies

Create chains

Cable Connection between 2 connectors :

Here , for example, Pull plug 1 onto the canvas .

Rightly turn / push / zoom .

White arrow from right menu (if not already done) .

Select plug (left mouse button on the green connector) .

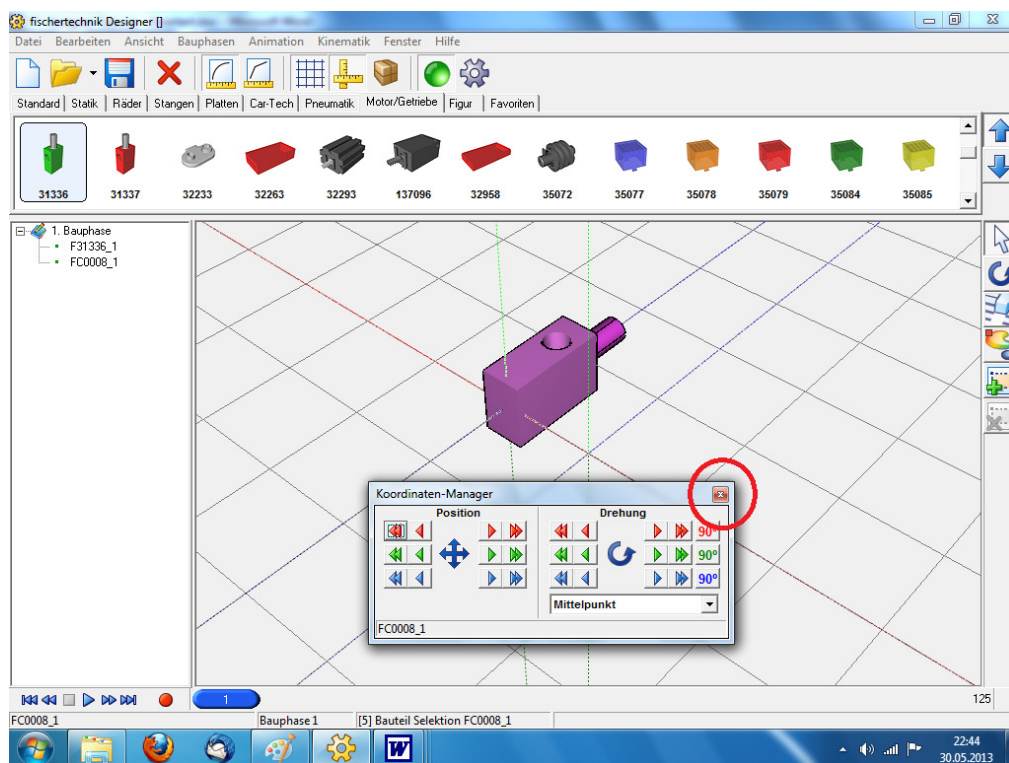
[Shift] button (up arrow on keyboard - United Mach button) and hold with the left mouse button click silver plug .

Then you have selected both parts of the connector .

Now select "Window" menu >> " Coordinates Manager " .

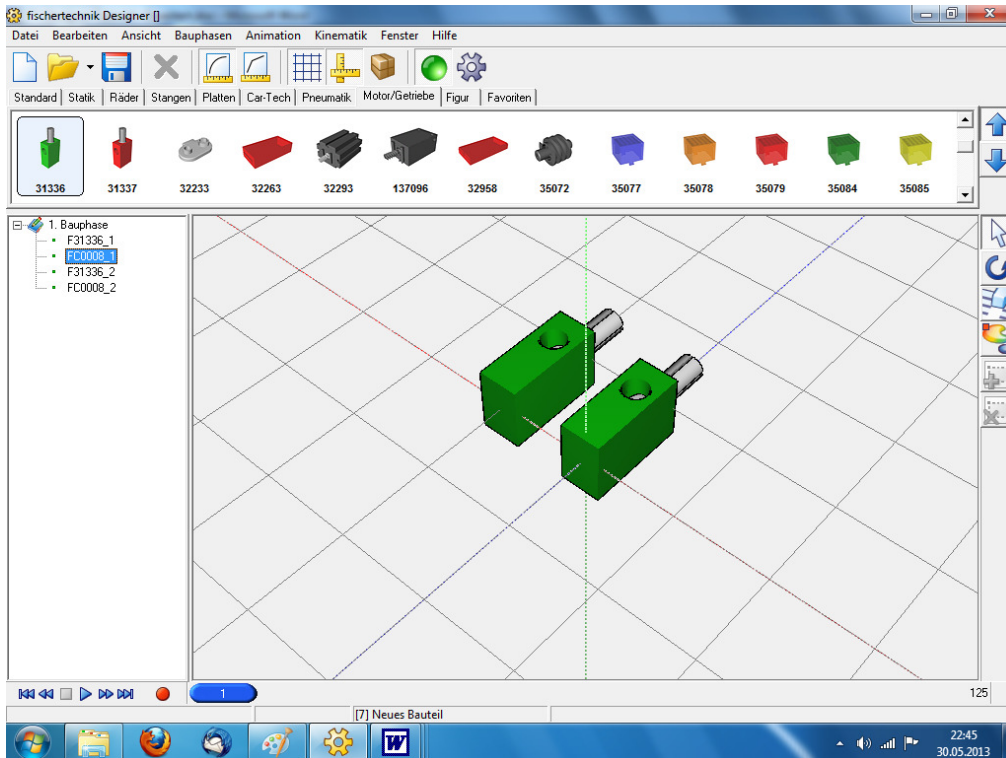
Move plug to the red axis (2x click the left double arrow) .

Coordinates Manager by clicking on close red cross again .

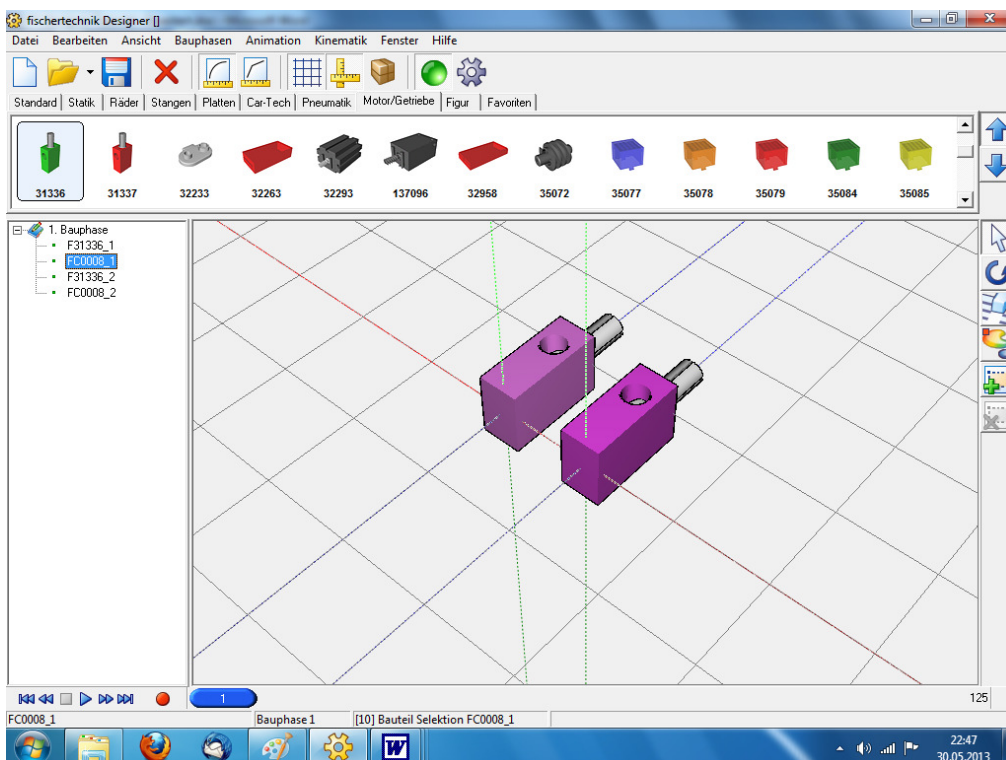


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Second pull plug on canvas.

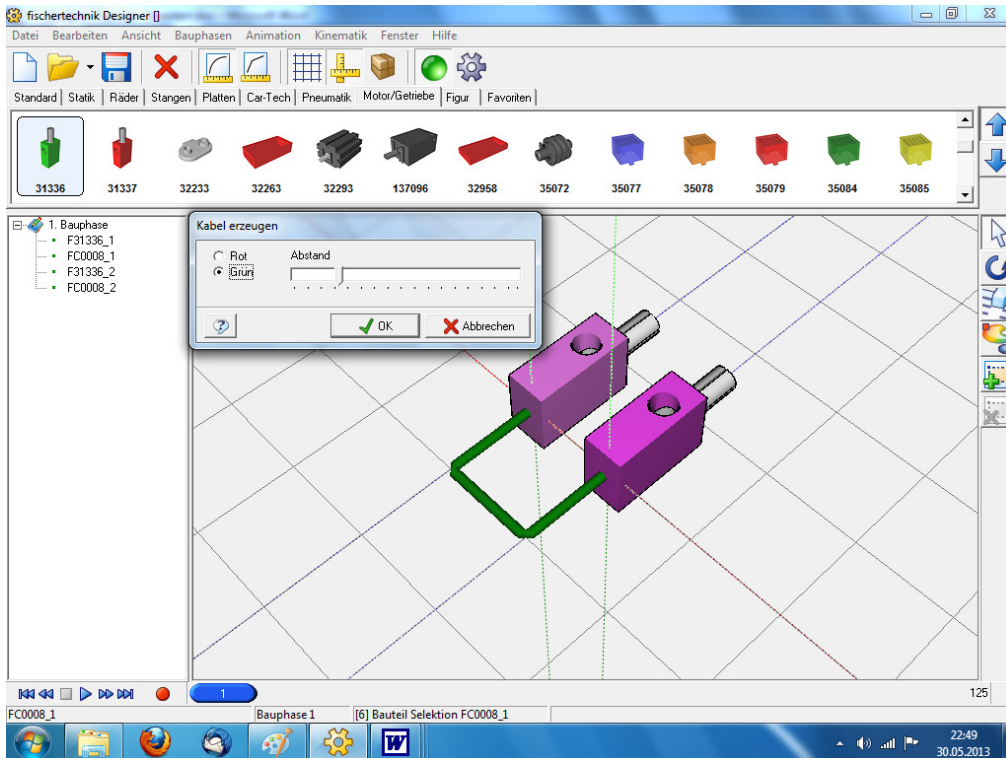


White arrow from right menu (if not already done) .
Then select the first green plug (left mouse button) .
Then again hold down [Shift] key and select the second green connector .



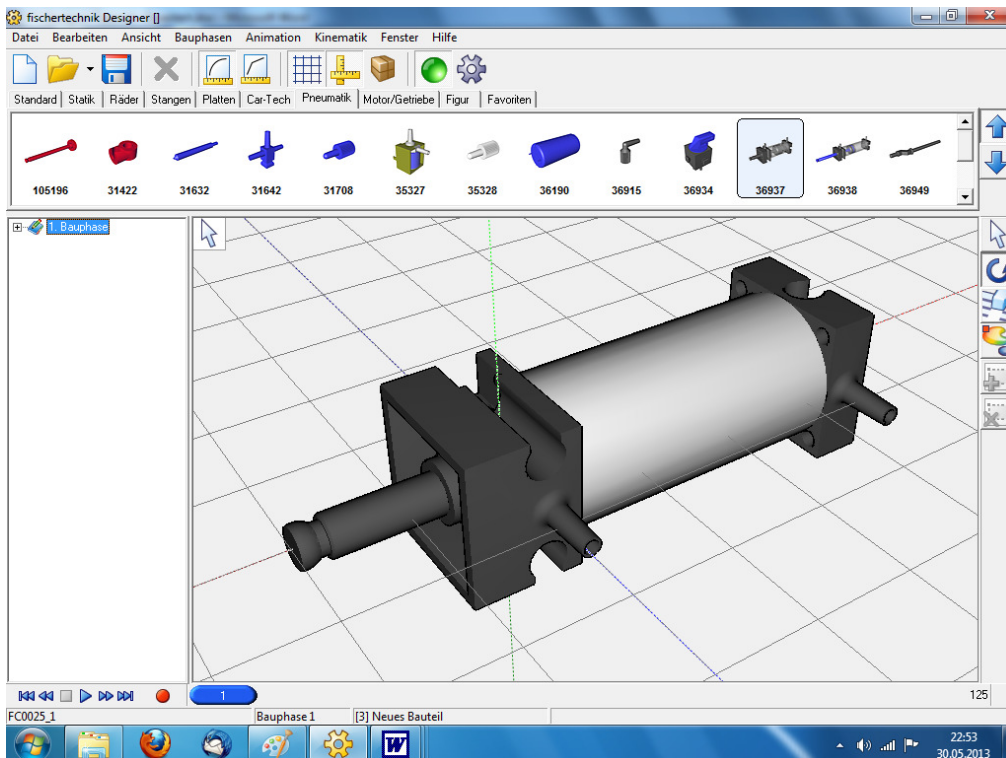
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Menu "Edit " >> " create cable " OK >>



Hose Manager :

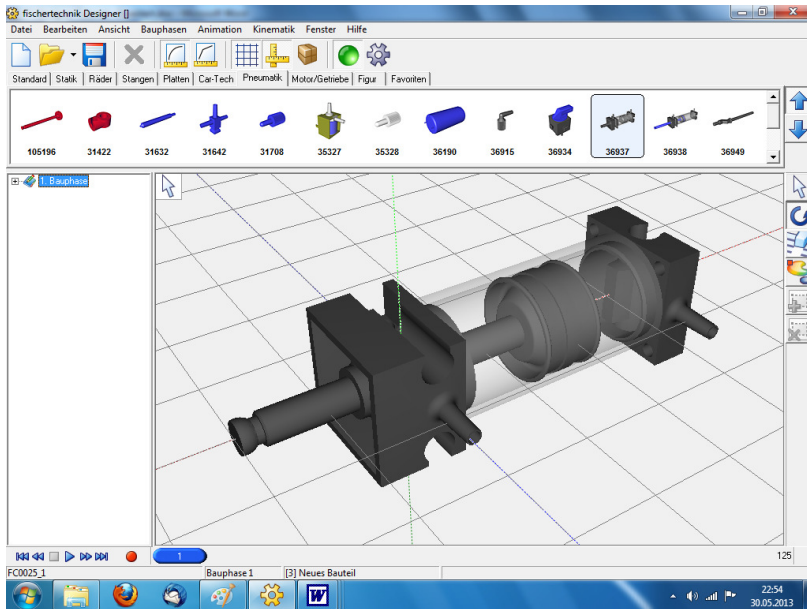
Here on a example I prefer first time a compressor - cylinder 45 in the workspace



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Here you can see how it looks when I fade the component edges ("View" menu >> " component edges draw ") .

However, " normal " components dissolve into each other when the component edges are hidden. So you should be always visible , the component edges really .



Now I start the hose Manager :

"Window" menu >> " Tube Manager "

Here are 4 Views :

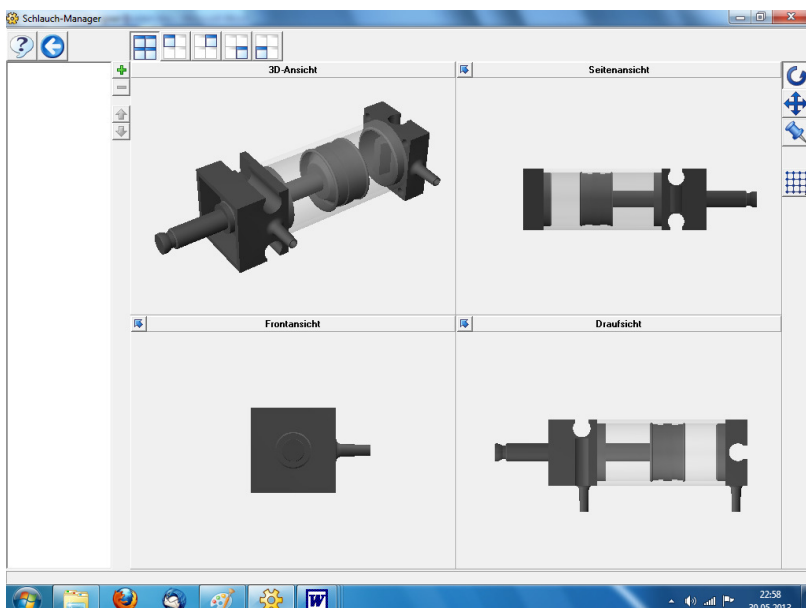
page

Front

Top view

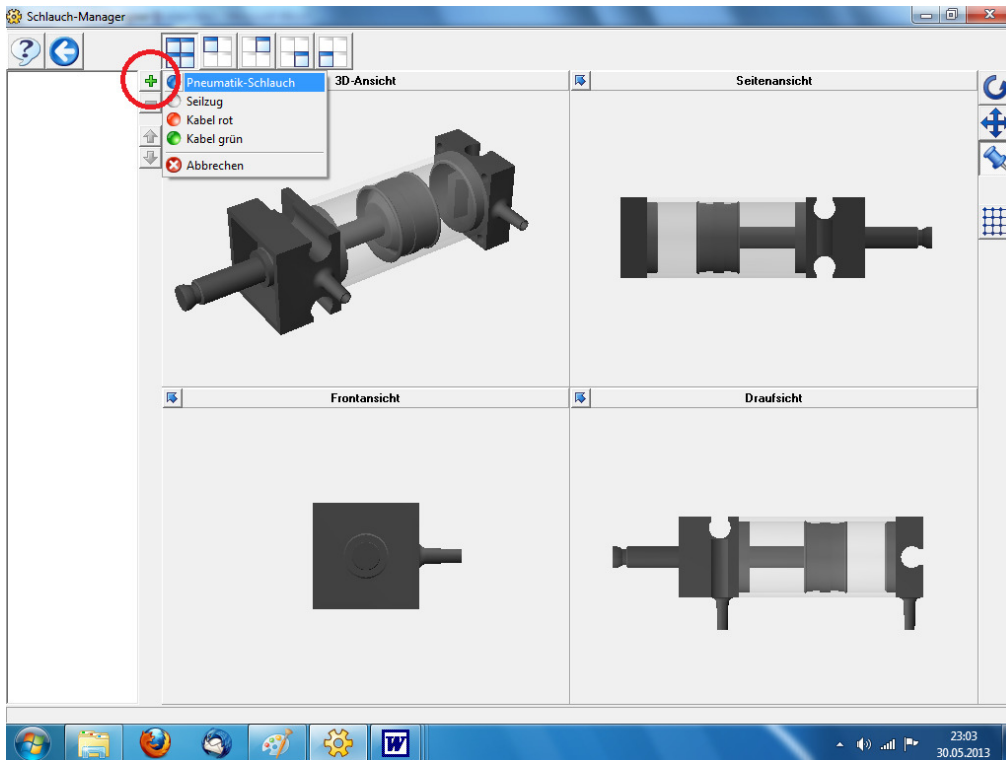
and 3D

I can view each individual cope push (press and hold left mouse button and slide your mouse) and back (right-click and hold your mouse and slide up or down) .



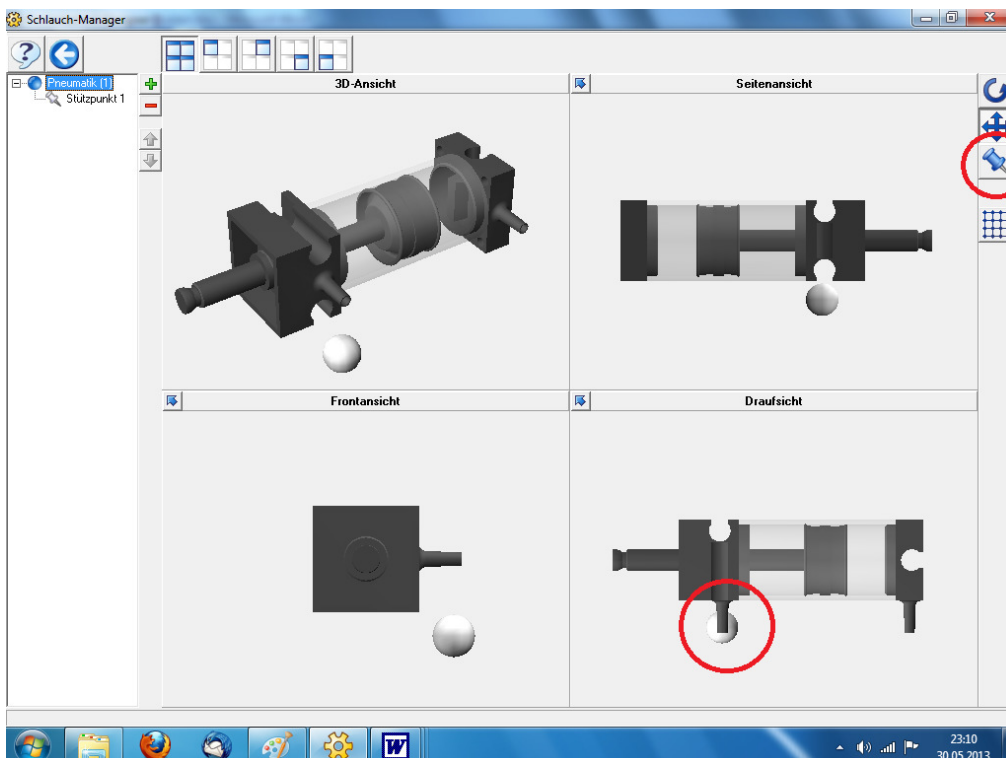
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Then I select on the green plus " pneumatic hose " from



Now I have to choose the needle in the right hand menu and can now set points in one of the 3 windows . In the 3D view it is not.

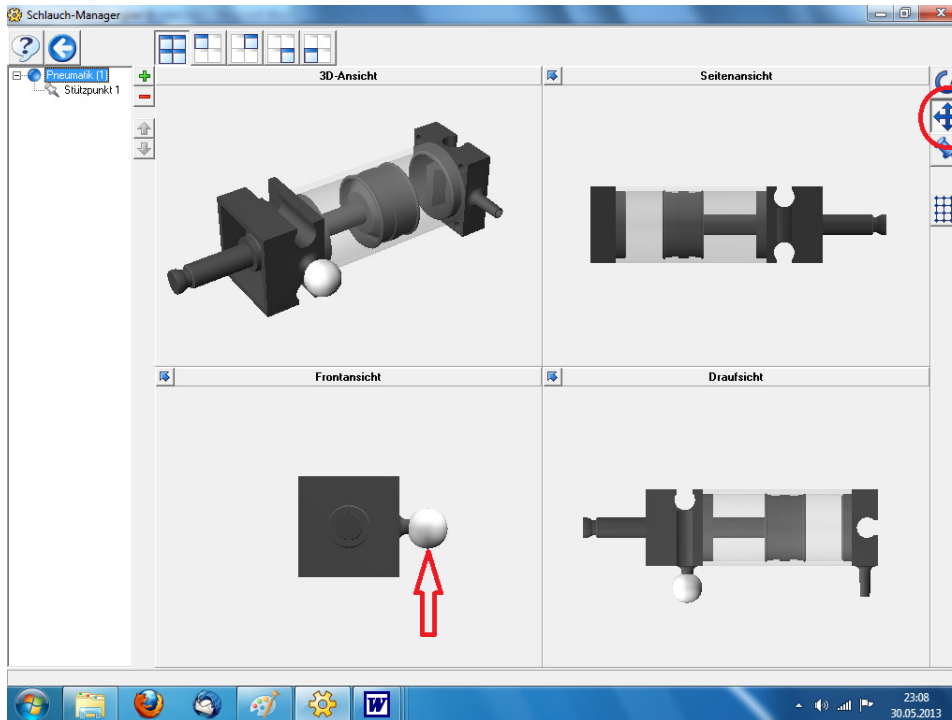
I have set a breakpoint on the hose connection in plan view with the left mouse button :



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This is a bit too low , as has been seen in the front view .

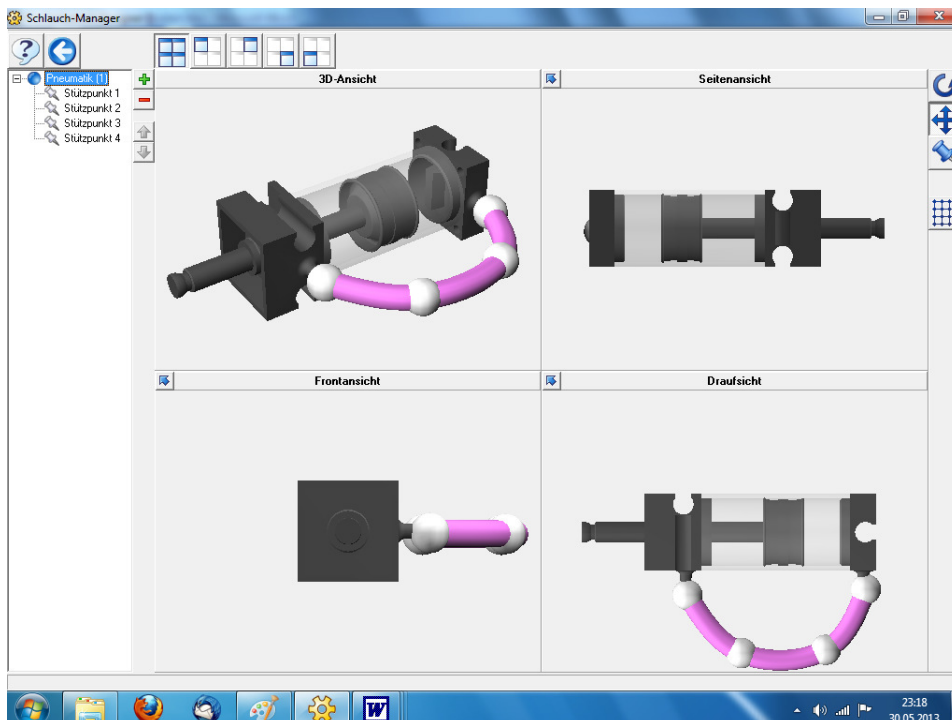
So the cross - arrow selected from the right menu and move the base in the front view (with the left mouse button , the white ball is pushed up) :



Now put more points (Select again in the right menu , the pin) .

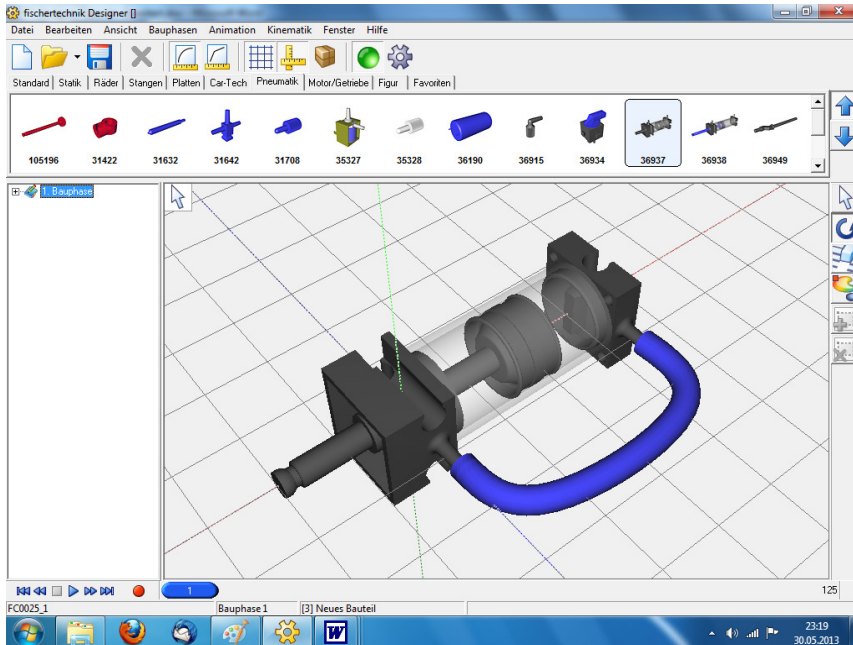
Here you need some sense of where how many are needed .

I'm making a total of 4 points here .



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Correct as long until everything fits .
Finished!

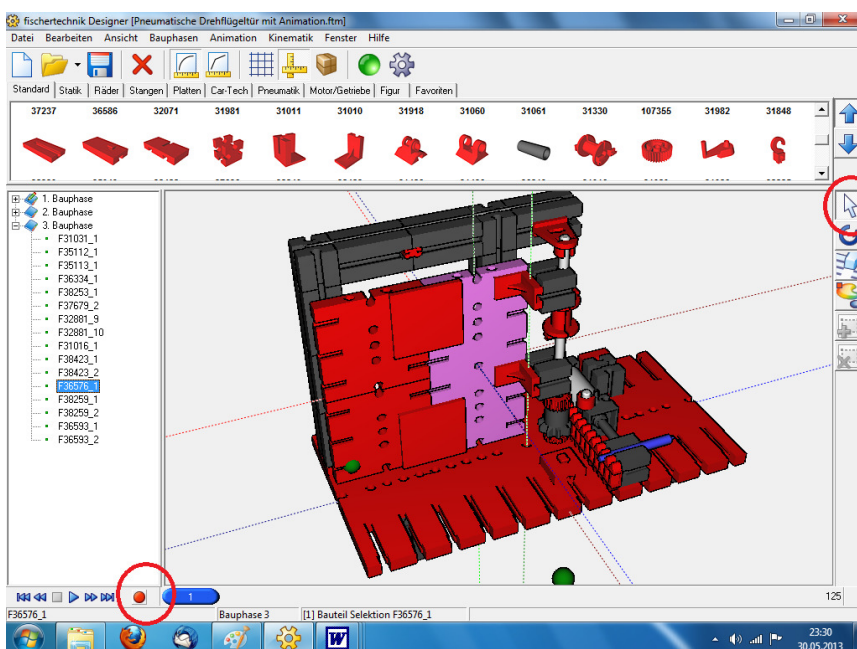


Movements / create Movies :

You can take the FT designers also make films .

These are independent of the kinematics engine of the program , which is dealt with in a separate tutorial (kinematics) .

In the following example I move only a small part . Will you move more , which goes accordingly. One can only move 1 piece at a time . So first select first part with the left mouse button . Then red save button press down .



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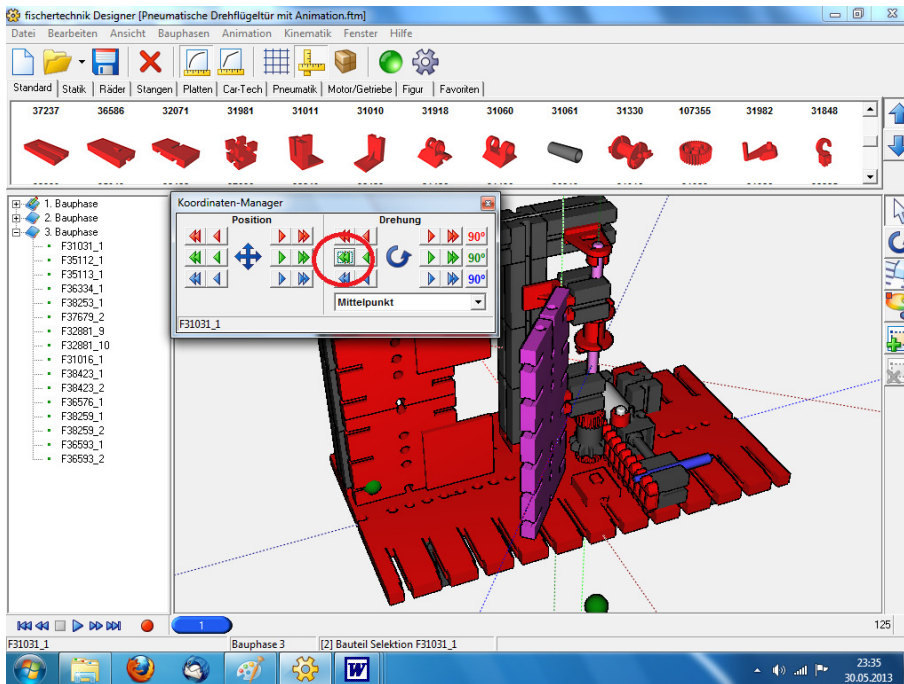
call coordinates Manager (" window " >> " Coordinates Manager ") .

Select rod (with the left mouse button) .

[Shift] and additionally select with the left mouse button right-hand door .

Then 3x the green double arrow to the left click .

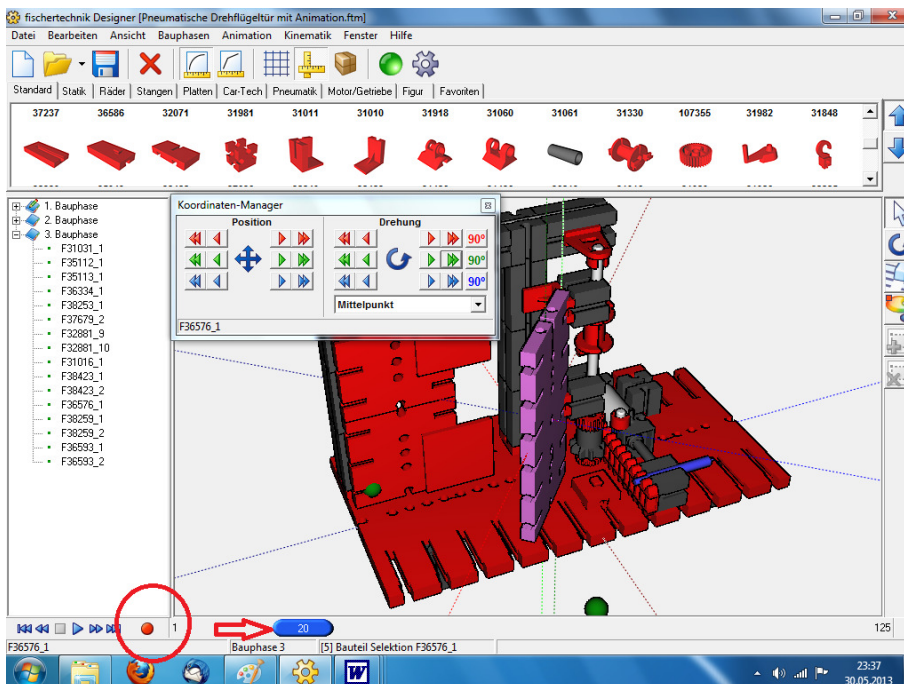
So it looks like :



Slide frame counter with the left mouse button on 20th

Select only the door (with the left mouse button) . The bar served only as an aid .

Again press the red save button .



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Close Coordinates Manager again .

Now you can see the movement by reciprocating the frame counter .

For more parts you go so on :

Frame counter push to the left again to 1.

Select next part (left mouse button) .

Press the red save button .

Rotate or move with the Coordinates Manager component .

Frame counter 20 slide .

Select only the new part (left mouse button) .

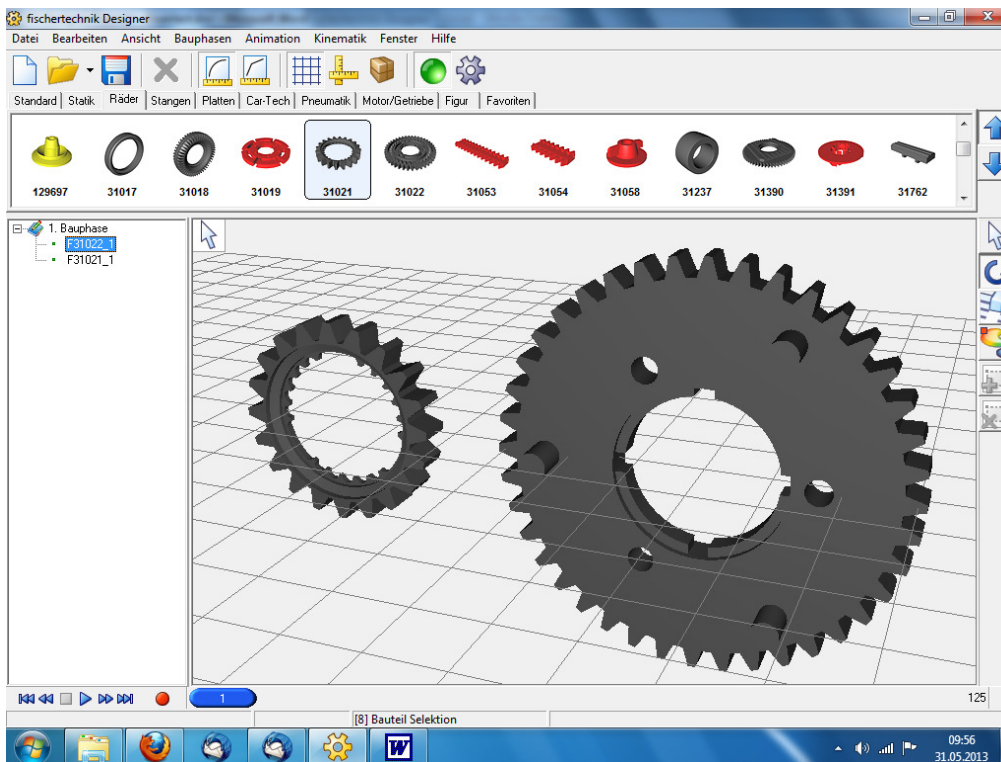
Press the red button memory .

etc.

Create chains :

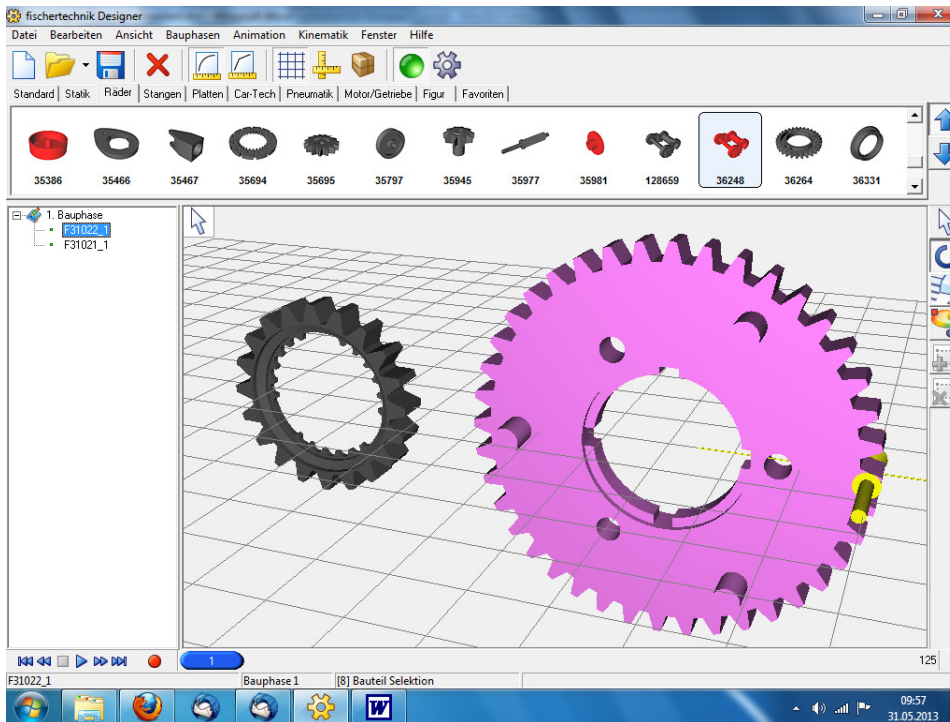
You can take the FT - Dsigner also create chains , however, you can not animate it .

So again 2 gears

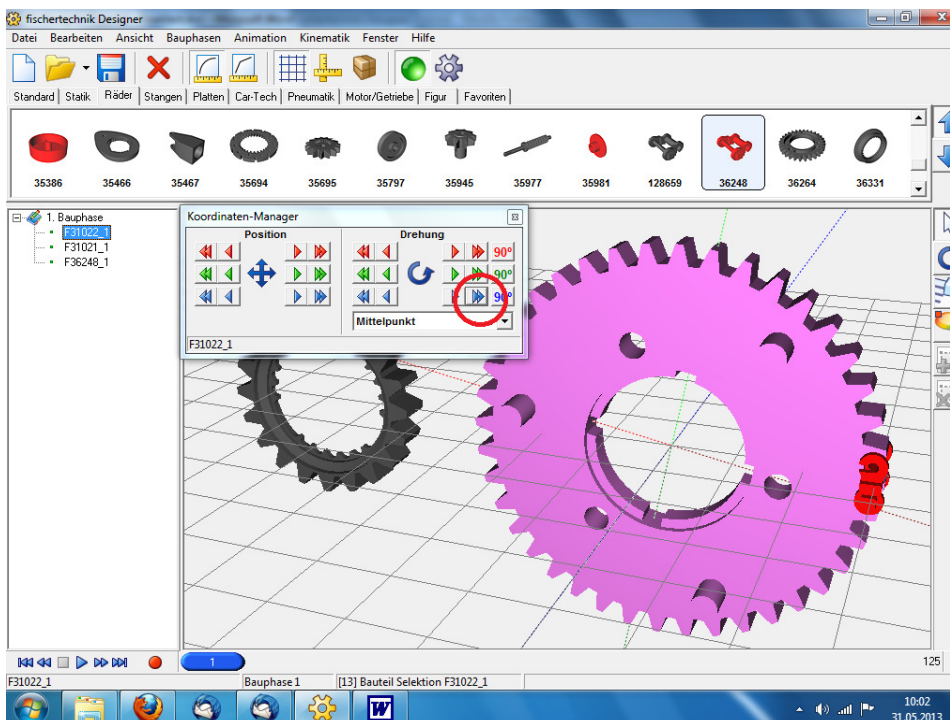


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The chain links can be found under " Wheels " (such as gears)
First pulling the first piece to a gear :

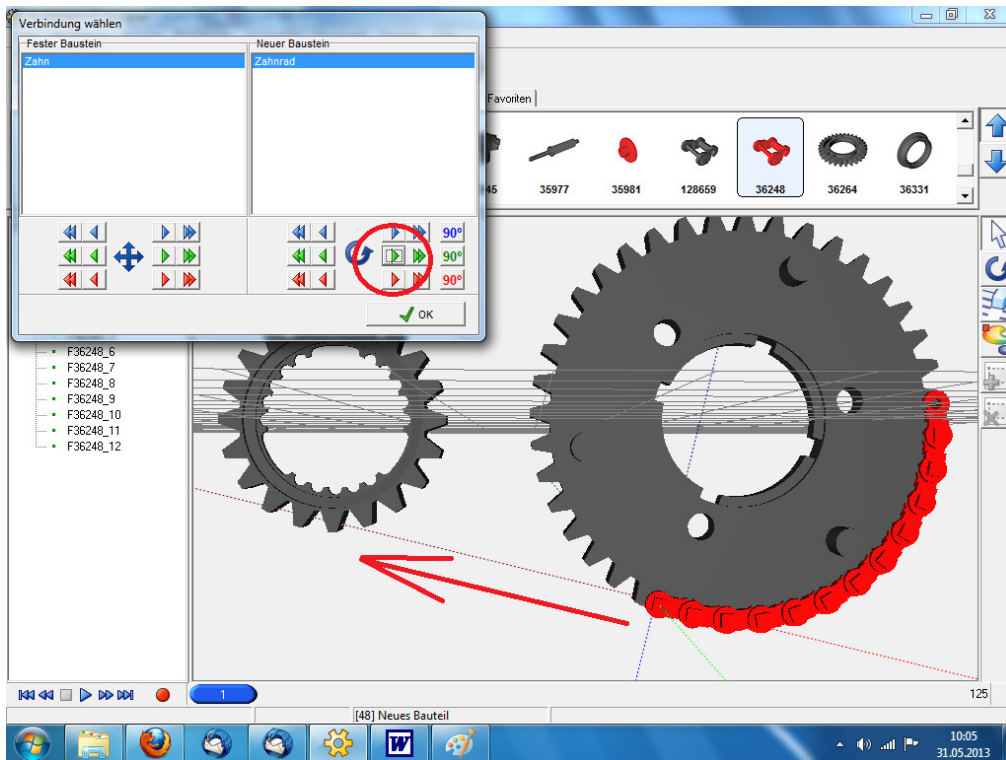


Now marking the gear with the left mouse button
Gets the Coordinate Manager ("Window" menu >> " coordinate Manager ")
And rotates the gear on the axis passing through the center (in the case of blue) with 1x the double arrow to the right.

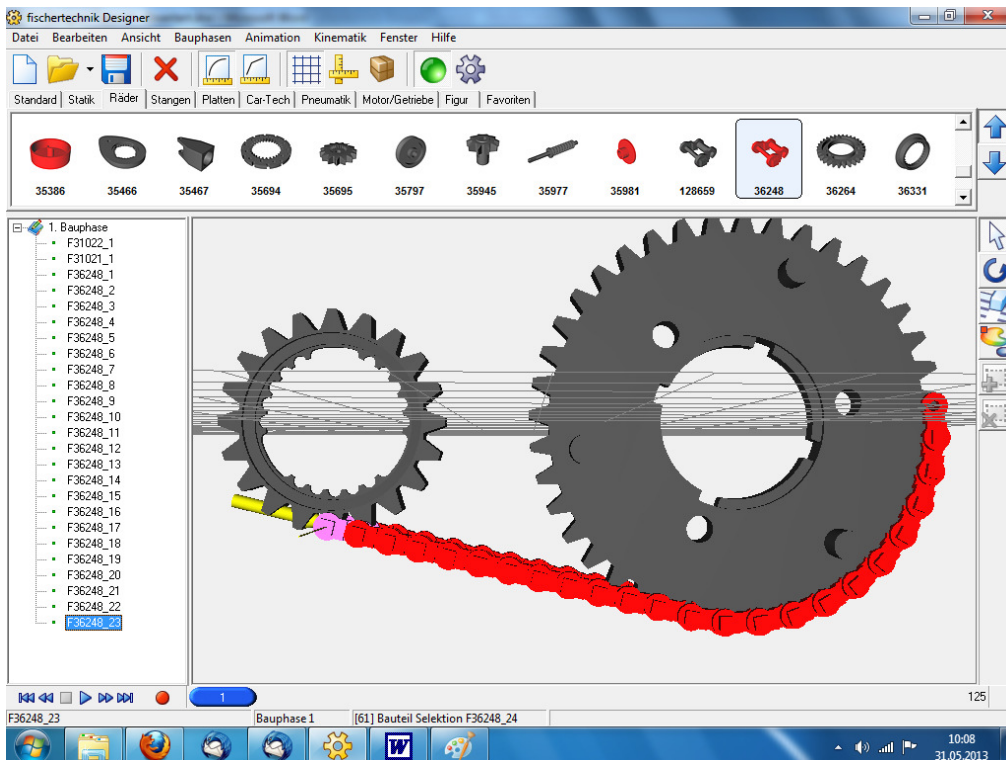


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Then pull the next chain link on the gear and so on, until the gear is occupied.
The last link in this gear has to turn to , to point to the other gear (note the red line) .



Now you can easily grow the chain links to the other .

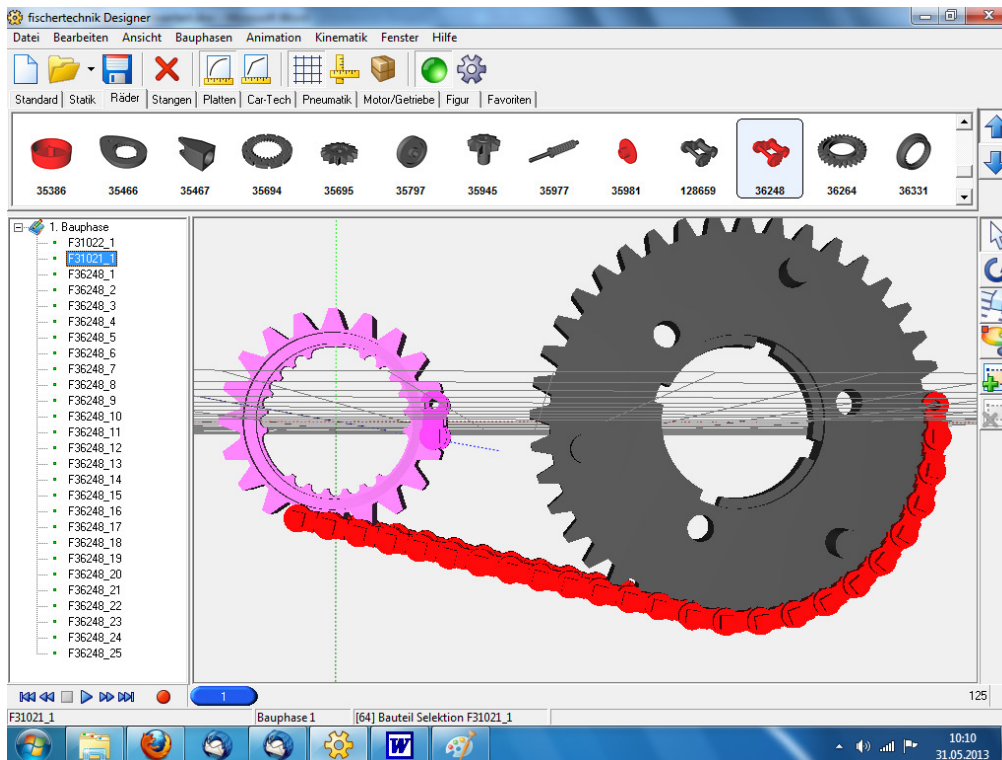


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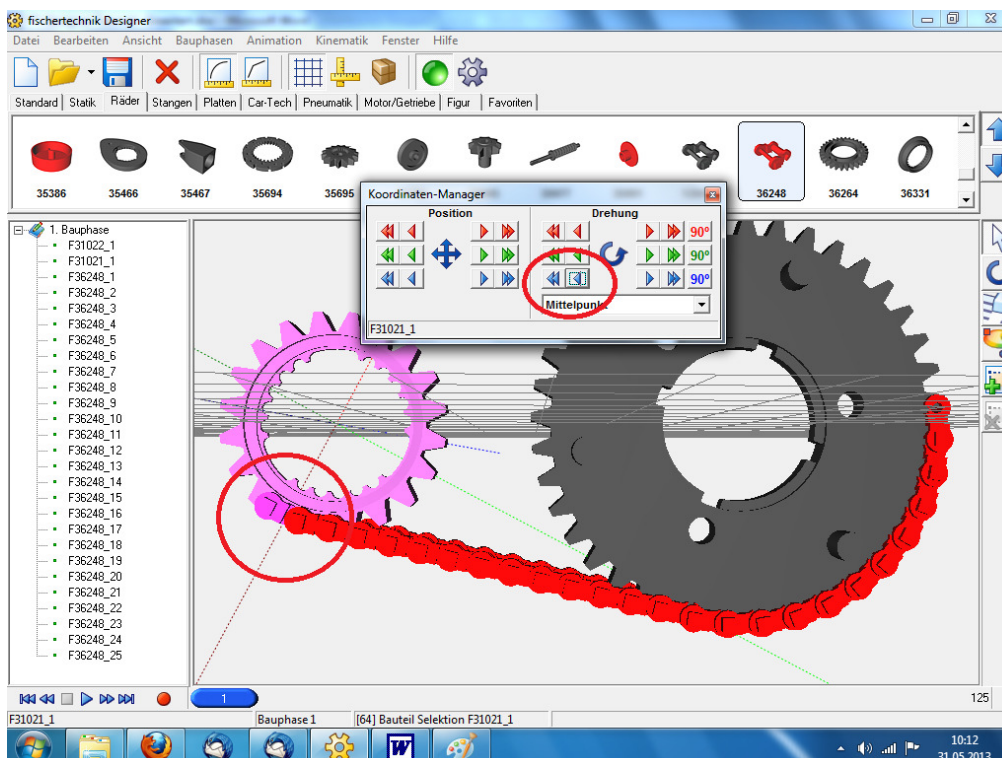
With the second gear as it comes with the first (links back to the draw gear - this time the little one) .

Here one must now highlight gear and chain link , because it is not true .

So Left Mouse Button on gear , [Shift] and additionally left mouse button on the chain link .

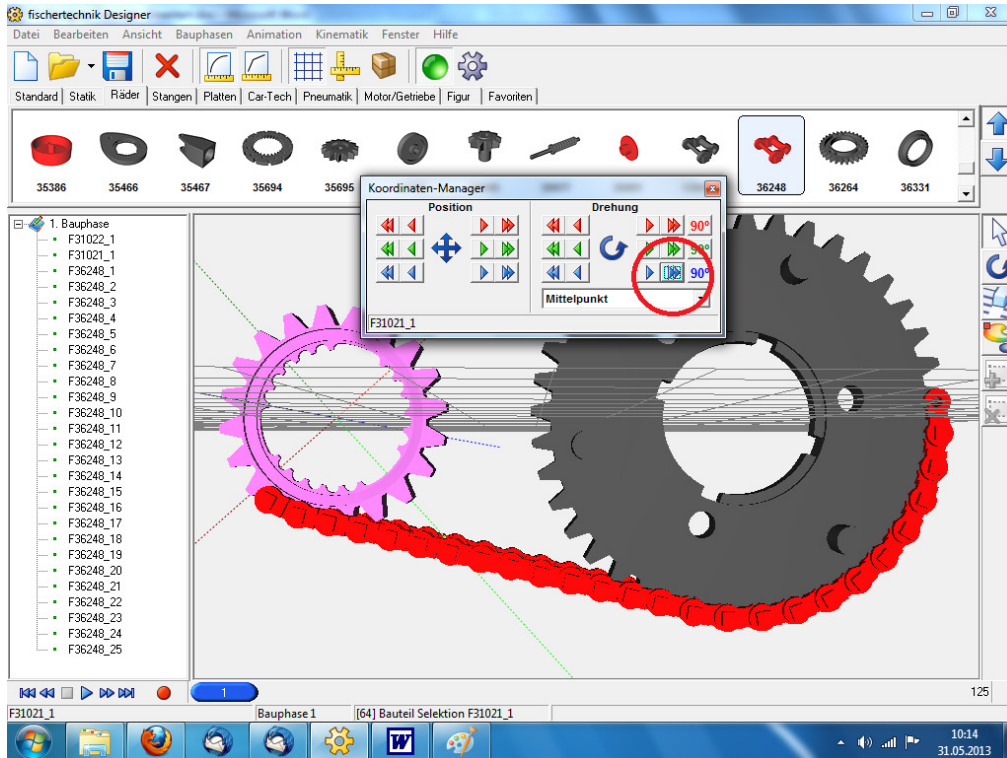


Then call Coordinates Manager , and turn until it fits .

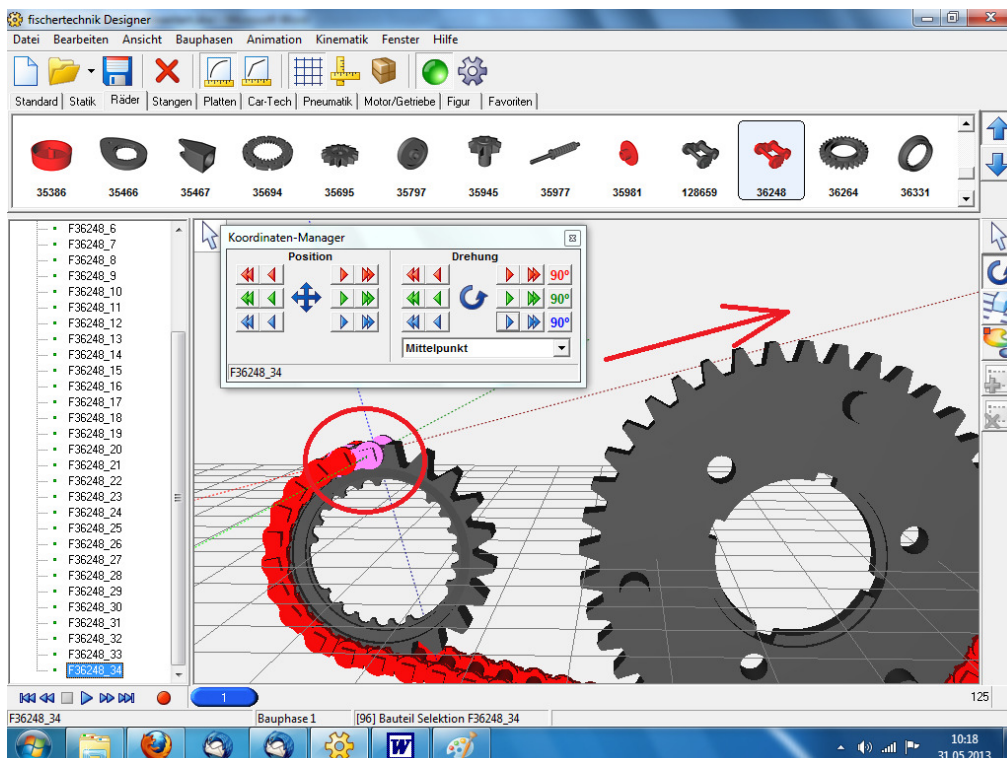


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Now again the small gear a bit further turn (with left mouse button and select 1x double arrow , click here Blue) .

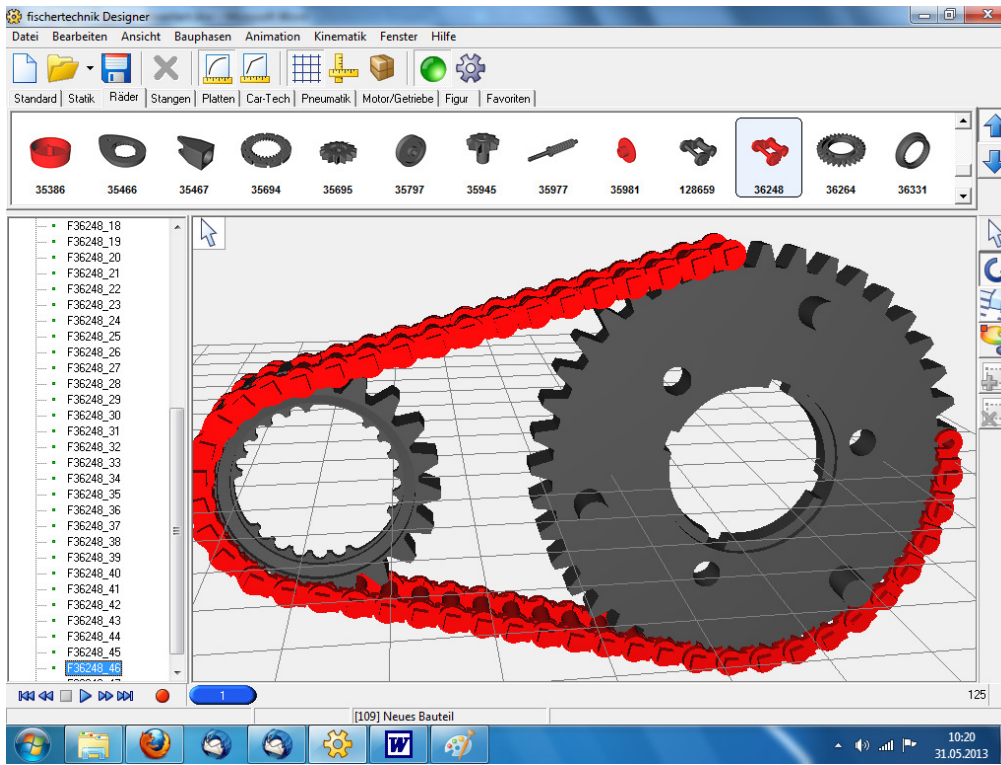


Now just pull the chain links on small gear such as the large gear .
And last gear align again (this time in the large gear)

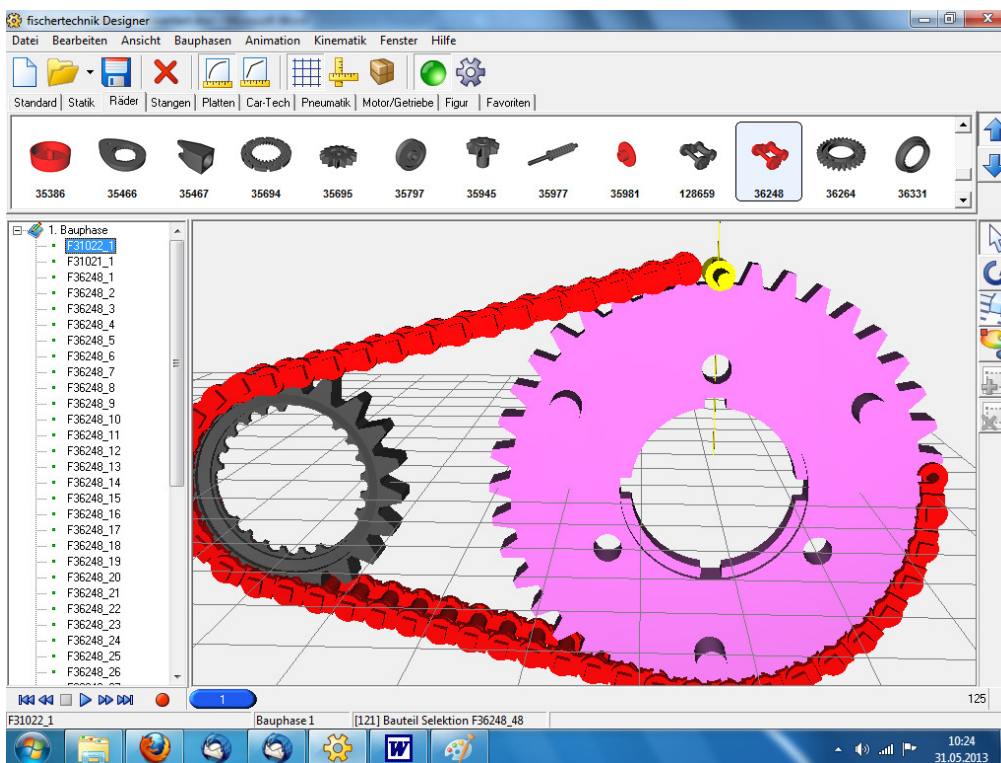


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Now again build the chain links to one another .

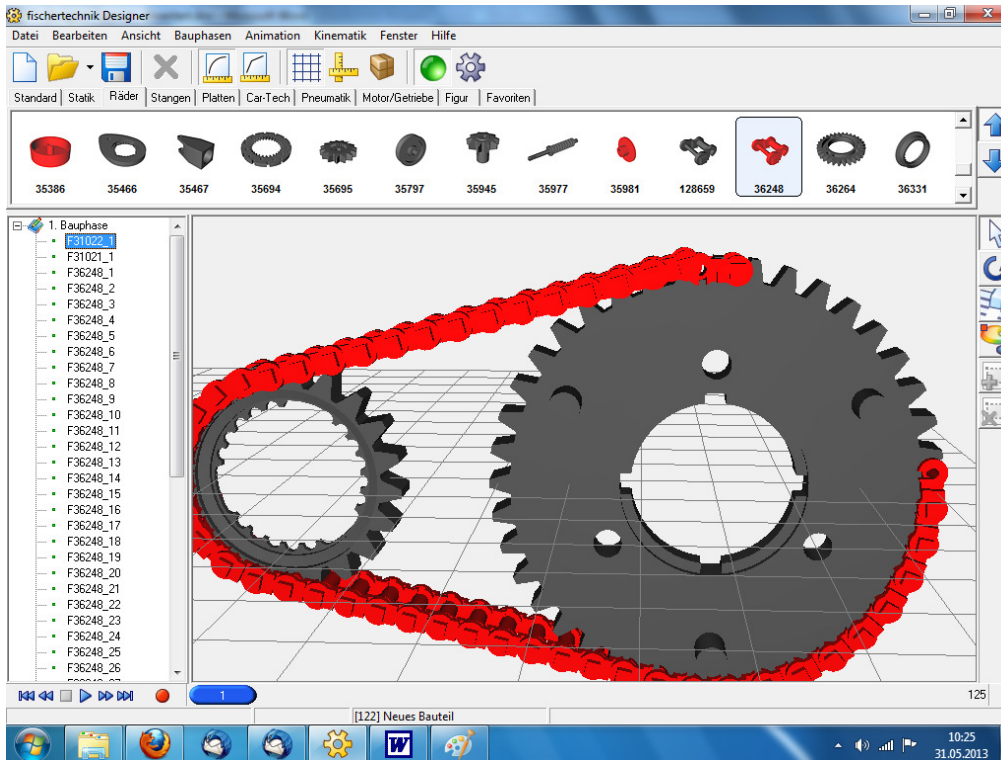


And the rest of the chain links draw on the large gear again . Only one times - a trial basis . Then you can see how you have to correct . I've shot here the gear already 90 degrees on the blue axis .



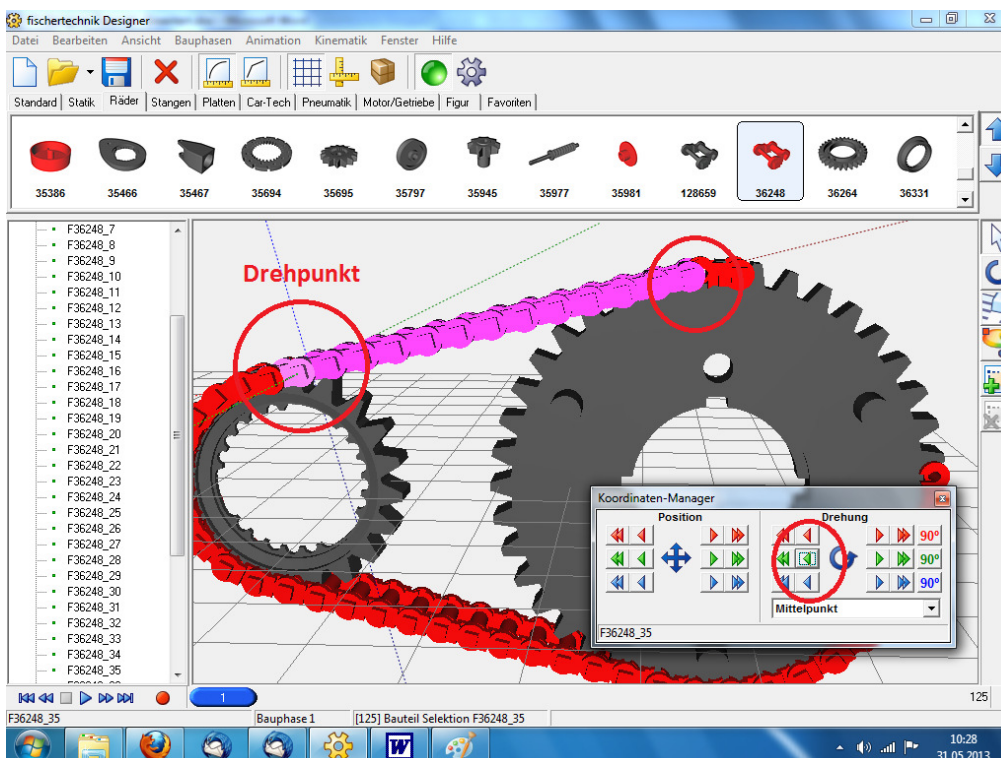
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You see it does not quite fit .



So correct .

Only select the link on which you want to turn the chain . Then select the rest of the chain links (hold down [Shift] -Tase) and rotate (Coordinates Manager)



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Now draw the remaining chain links on the large gear .

Here, the gear continues to rotate a piece .

Is not perfect , but that it must not also . One has only to see how much links you need.

Finished!

