

# How to create URDF from Fusion360 ??

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## How to Install plugin ?

1. Download the repo from the following link: <https://github.com/nksas/fusion2urdf.git>
2. Run the following command:

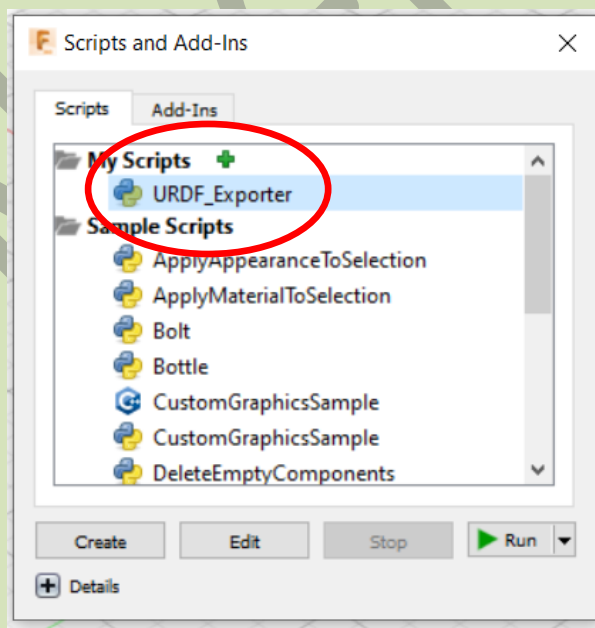
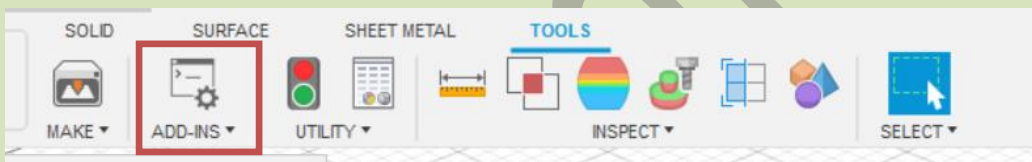
### Windows(in PowerShell):

```
cd <path to fusion2urdf>  
Copy-Item ".\URDF_Exporter\" -Destination "${env:APPDATA}\Autodesk\Autodesk Fusion  
360\API\Scripts\" -Recurse
```

### macOS(in Bash):

```
cd <path to fusion2urdf>  
cp -r ../URDF_Exporter "$HOME/Library/Application Support/Autodesk/Autodesk Fusion  
360/API/Scripts/"
```

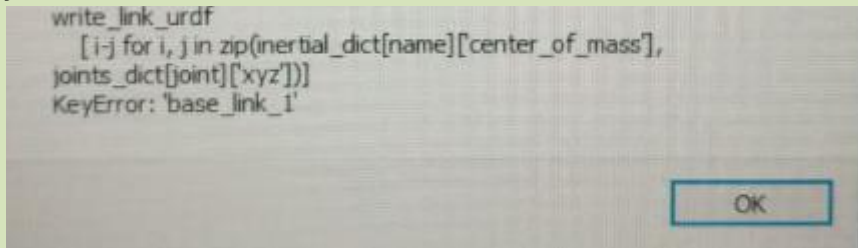
For confirmation you must be able to see "URDF\_Exporter" script in ADD-INS..... option as described below:



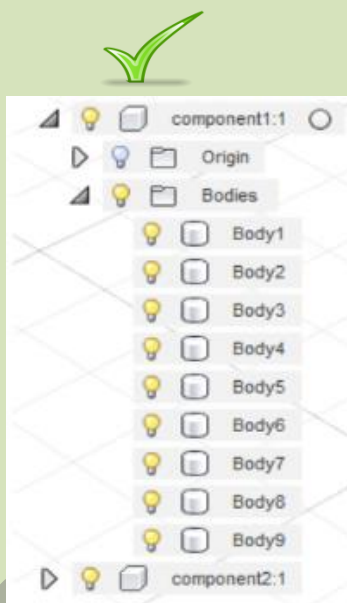
## Design rules:

1. Make sure your model has all the “links” as components. In case you have any body there is a direct option in fusion to make it a component.
2. While defining the joints make sure that you choose **parent links** as component2 (NOT component1).

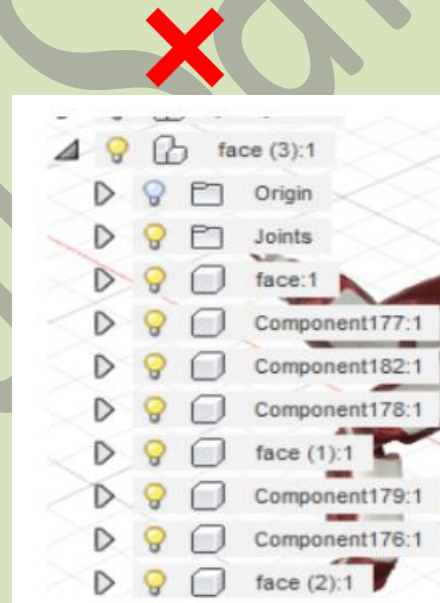
*(If following error appears then you need to interchange component 1 and component 2 in joint definition.)*



3. Make sure components of your model has **only bodies**. Nested components are not supported.

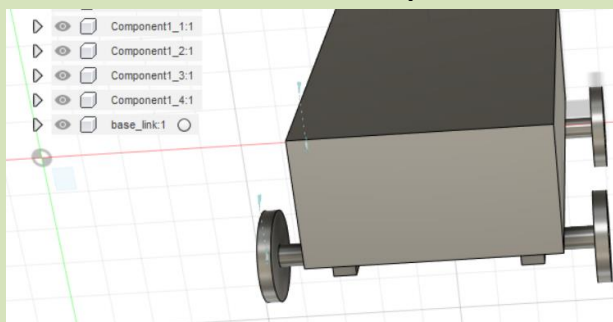


[This is correct]



[here “face(3):1” component contains other components]

4. As of now the version of exporter supports joint types “**Rigid**”, “**Slider**” & supports the joints limit (for “**revolute**” and “**slider**”).
5. You **must** define the **base component**. Rename the base component as “**base\_link**”.



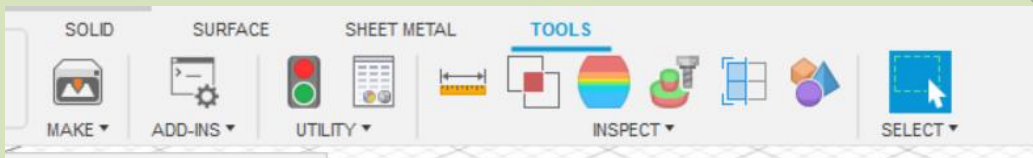
6. Try to keep the design **simple** and **well defined**.

Once you ensure all the above mentioned rules are followed you are ready to export your URDF.

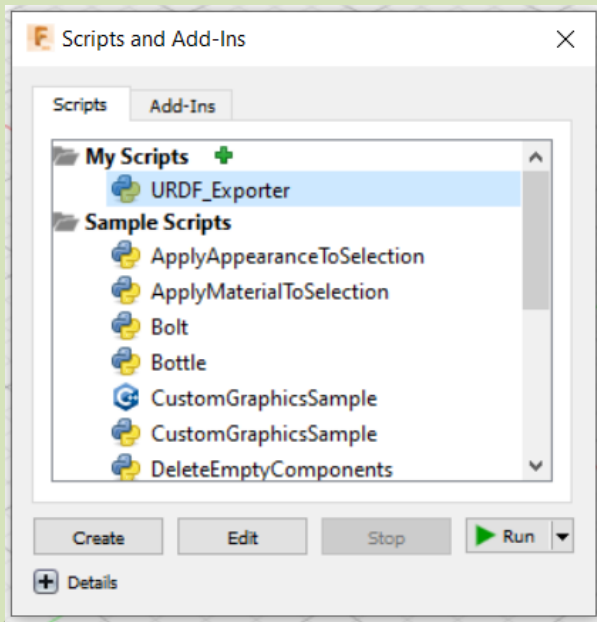
### How to export ??

[ **Note: Before you export URDF make sure you make a copy of your model** ]

1. Click **ADD-INS** in Fusion360>Tools.



Click **URDF\_Exporter**. (if you don't see this option check your installation work.)



Run the script and wait for few seconds. A folder dialog will appear. Choose your destination for saving file.

If you get a message “your URDF was successfully exported” then it’s done. Check the destination folder.

**Note: If any error appears while exporting , fix it accordingly.**

**Kudos! You made it to URDF.**