

Activity 7

Creating the wheels and axles holes



DESIGN ▾

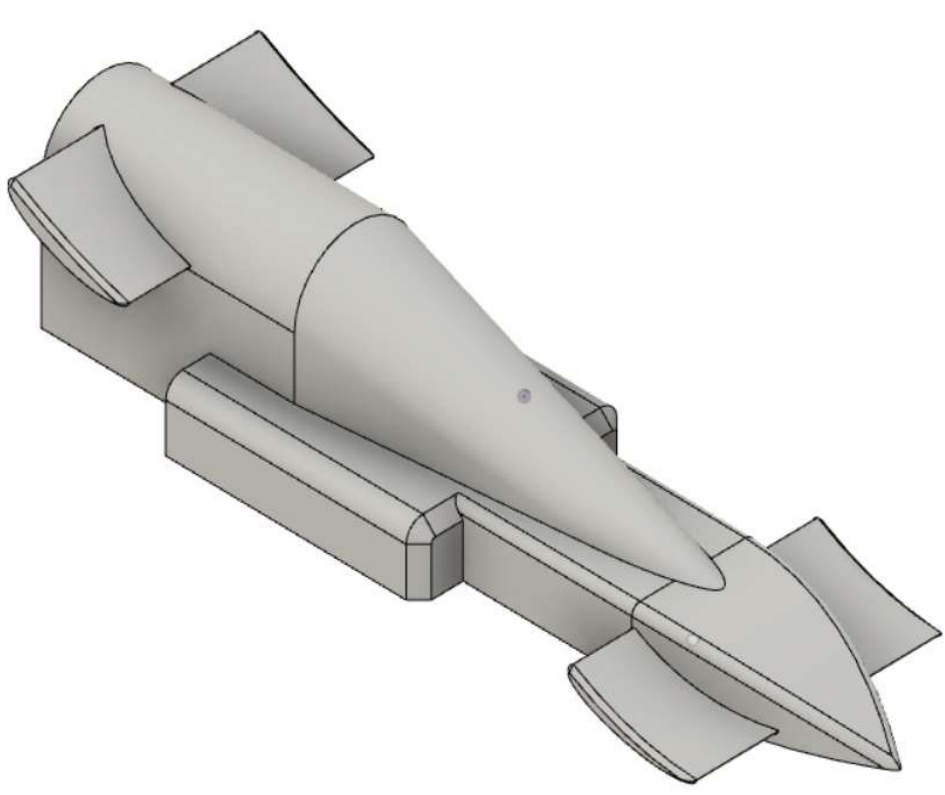
SOLID SURFACE SHEET METAL TOOLS

CREATE ▾ MODIFY ▾ ASSEMBLE ▾ CONSTRUCT ▾ INSPECT ▾ INSERT ▾ SELECT ▾

BROWSER

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- Document Settings
- Named Views
- Origin
- Bodies
- Sketches
- Construction

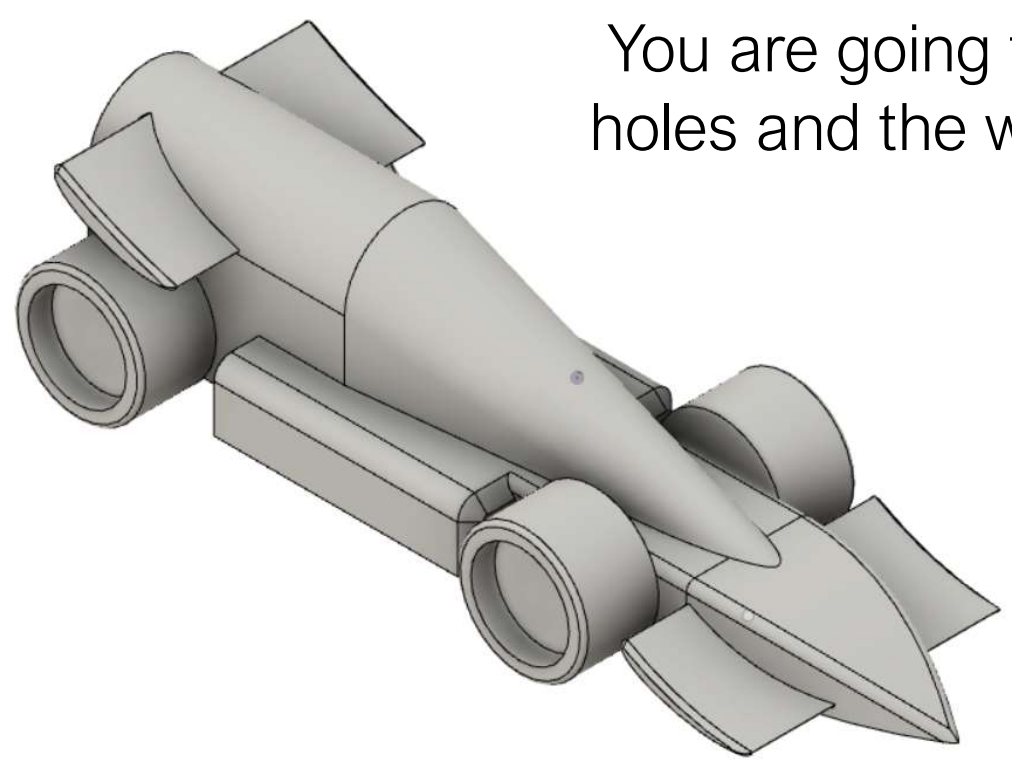
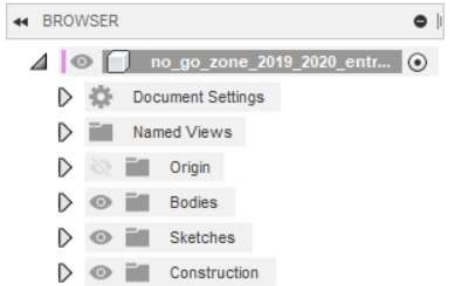


COMMENTS

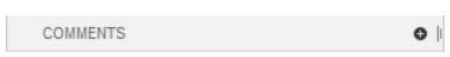
Navigation and view control icons including pan, rotate, zoom, and view toggles.

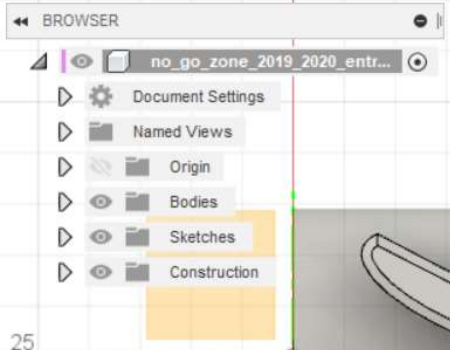
History or command bar showing a sequence of icons representing the steps in the CAD process.



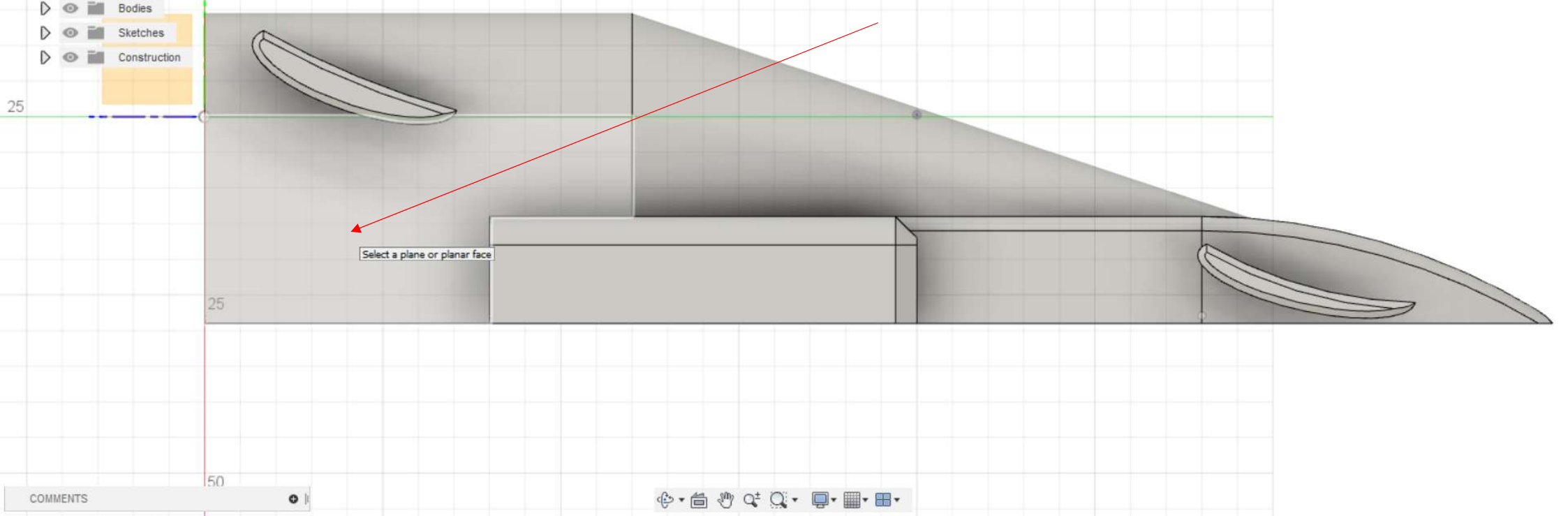


You are going to create the axle holes and the wheels to your car.





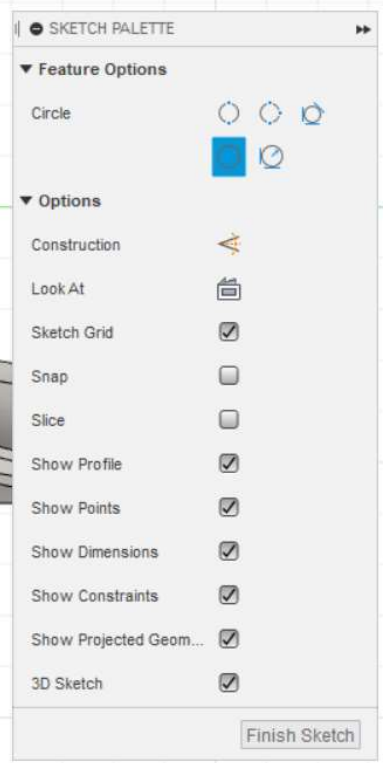
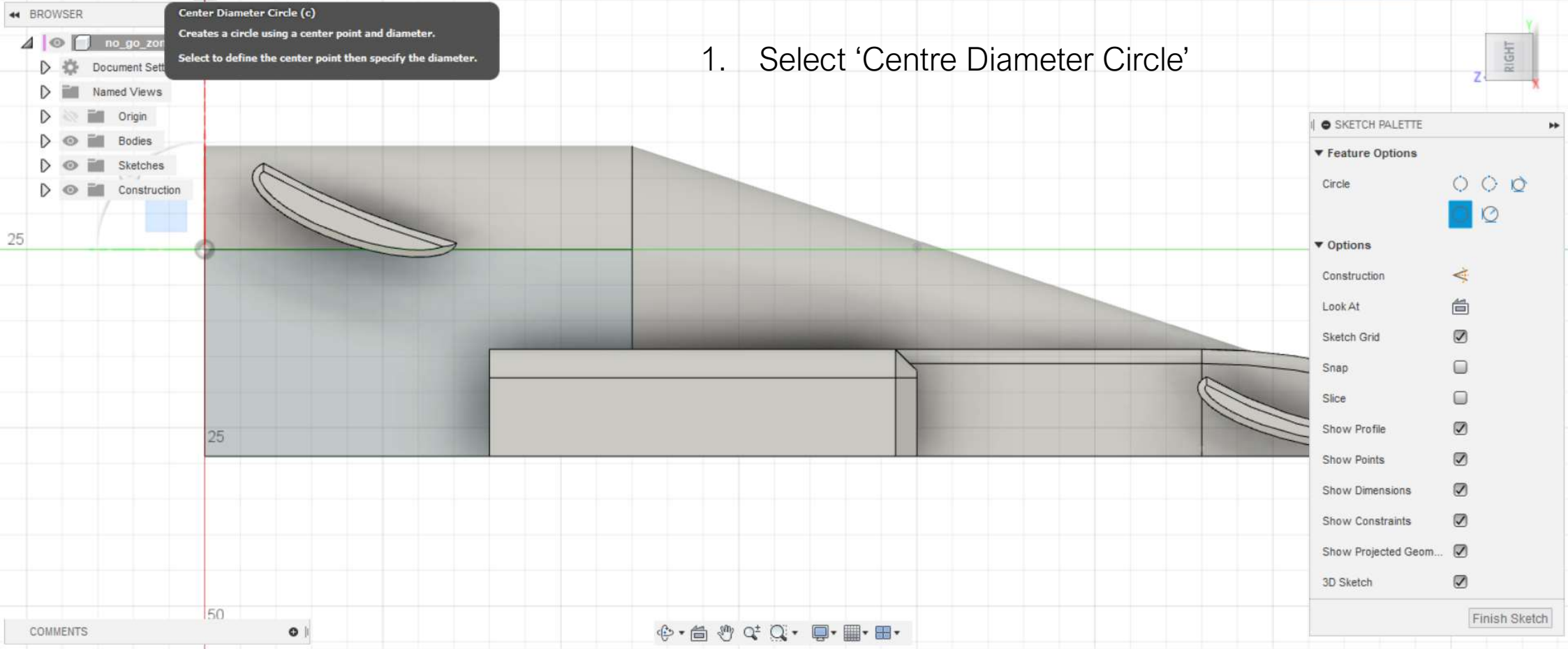
1. Click CREATE SKETCH
2. Select the back area of the car.





Center Diameter Circle (c)
Creates a circle using a center point and diameter.
Select to define the center point then specify the diameter.

1. Select 'Centre Diameter Circle'

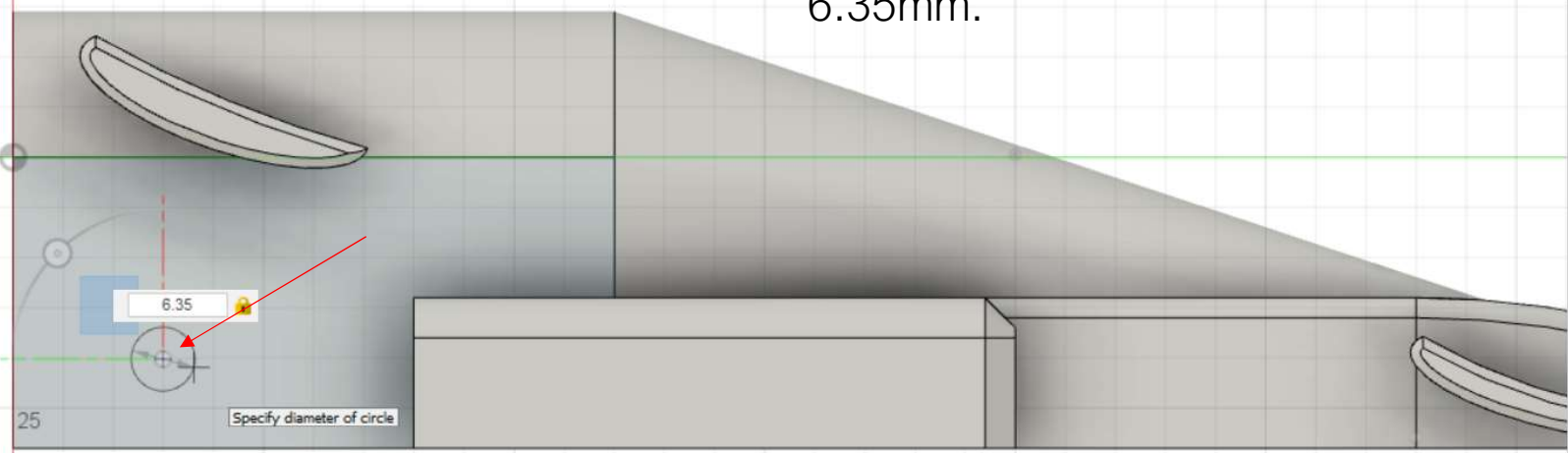




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1. Create a circle with a diameter of 6.35mm.



SKETCH PALETTE

Feature Options

- Circle

Options

- Construction
- Look At
- Sketch Grid
- Snap
- Slice
- Show Profile
- Show Points
- Show Dimensions
- Show Constraints
- Show Projected Geom...
- 3D Sketch

Finish Sketch

COMMENTS

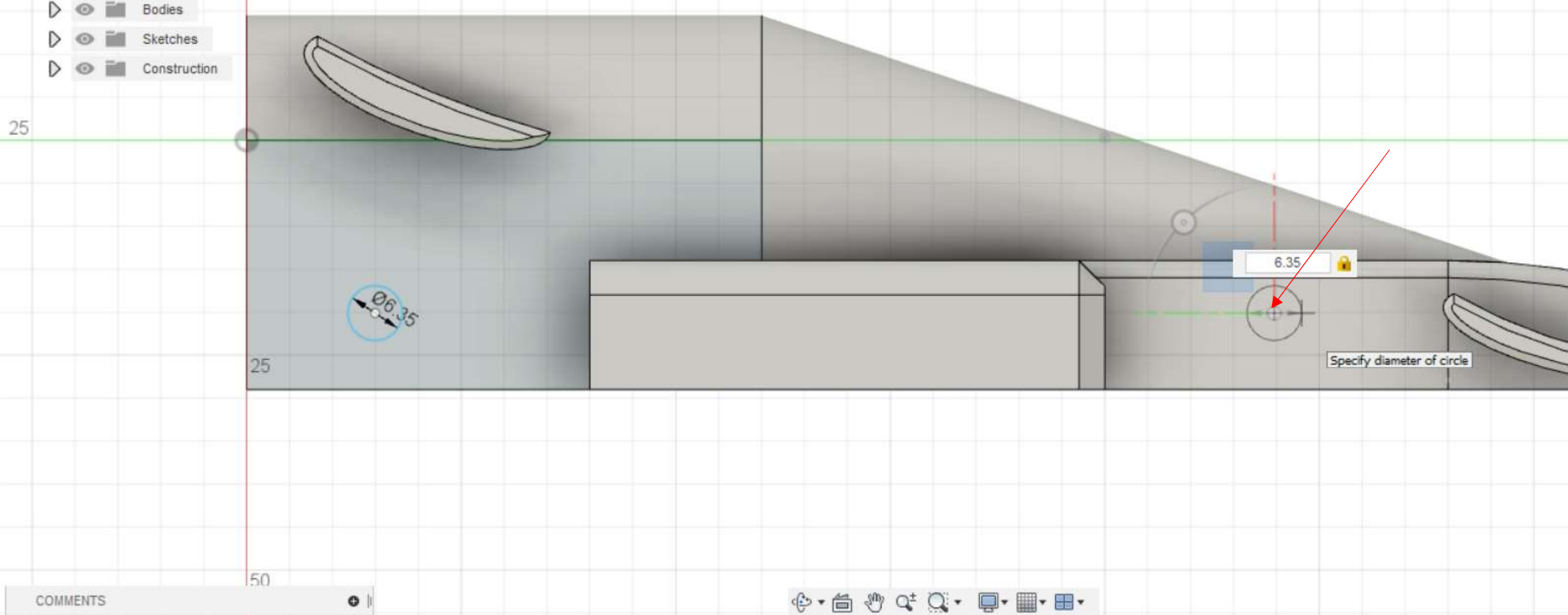




BROWSER

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1. Repeat for the front of the car.

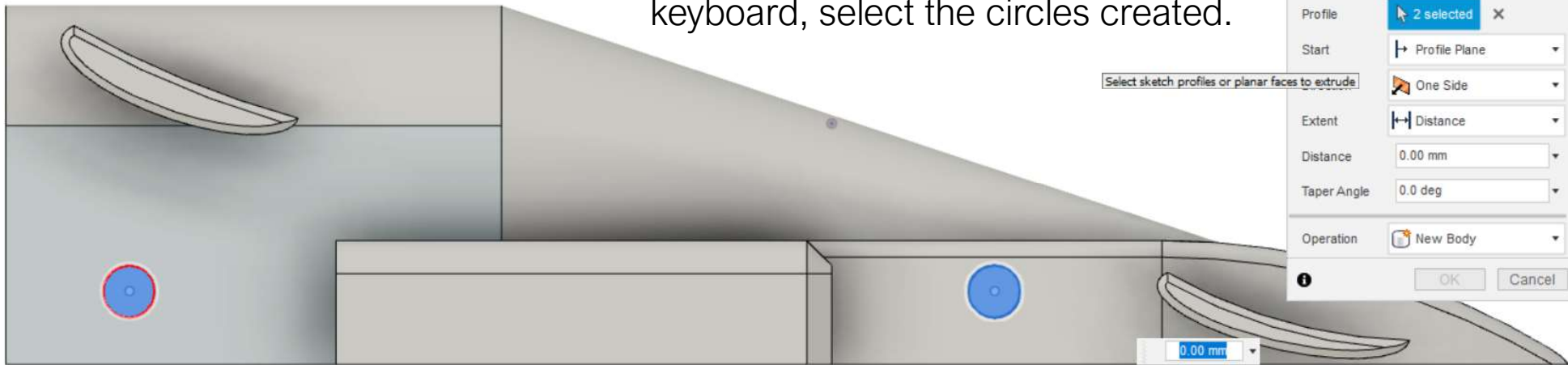
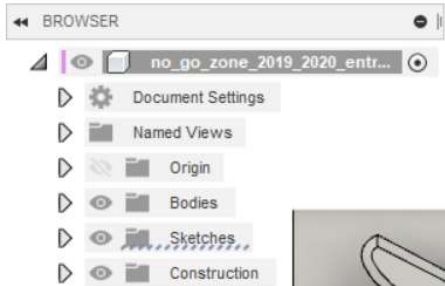


SKETCH PALETTE

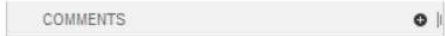
- Feature Options
 - Circle
- Options
 - Construction
 - Look At
 - Sketch Grid
 - Snap
 - Slice
 - Show Profile
 - Show Points
 - Show Dimensions
 - Show Constraints
 - Show Projected Geom...
 - 3D Sketch

Finish Sketch



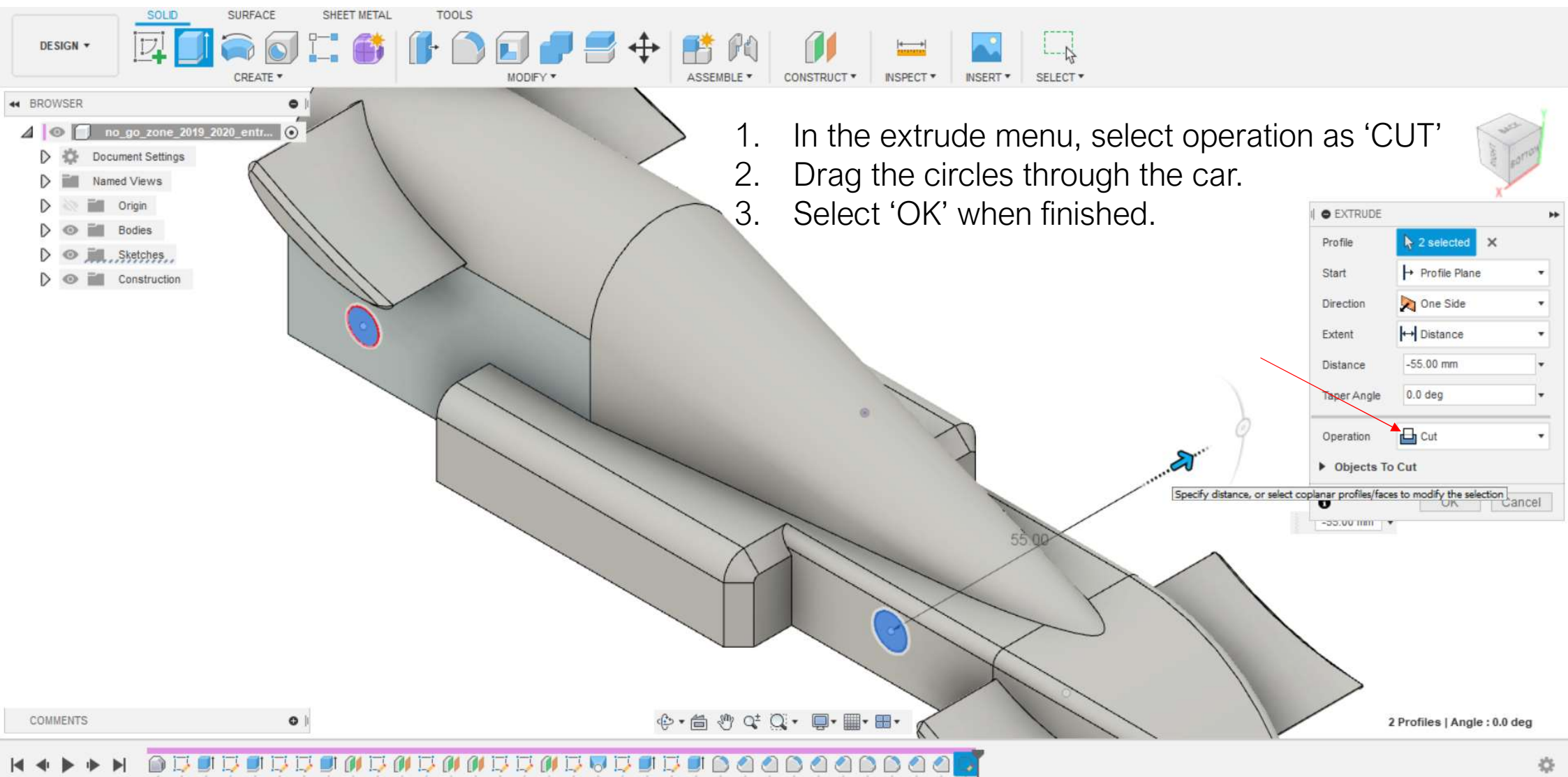


1. Click 'E' on your keyboard for the extrude tool.
2. Holding the CTRL button on your keyboard, select the circles created.



2 Profiles | Angle : 0.0 deg





1. In the extrude menu, select operation as 'CUT'
2. Drag the circles through the car.
3. Select 'OK' when finished.

EXTRUDE

Profile: 2 selected

Start: Profile Plane

Direction: One Side

Extent: Distance

Distance: -55.00 mm

Taper Angle: 0.0 deg

Operation: Cut

Objects To Cut

Specify distance, or select coplanar profiles/faces to modify the selection

OK Cancel

2 Profiles | Angle : 0.0 deg

DESIGN ▾

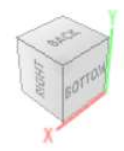
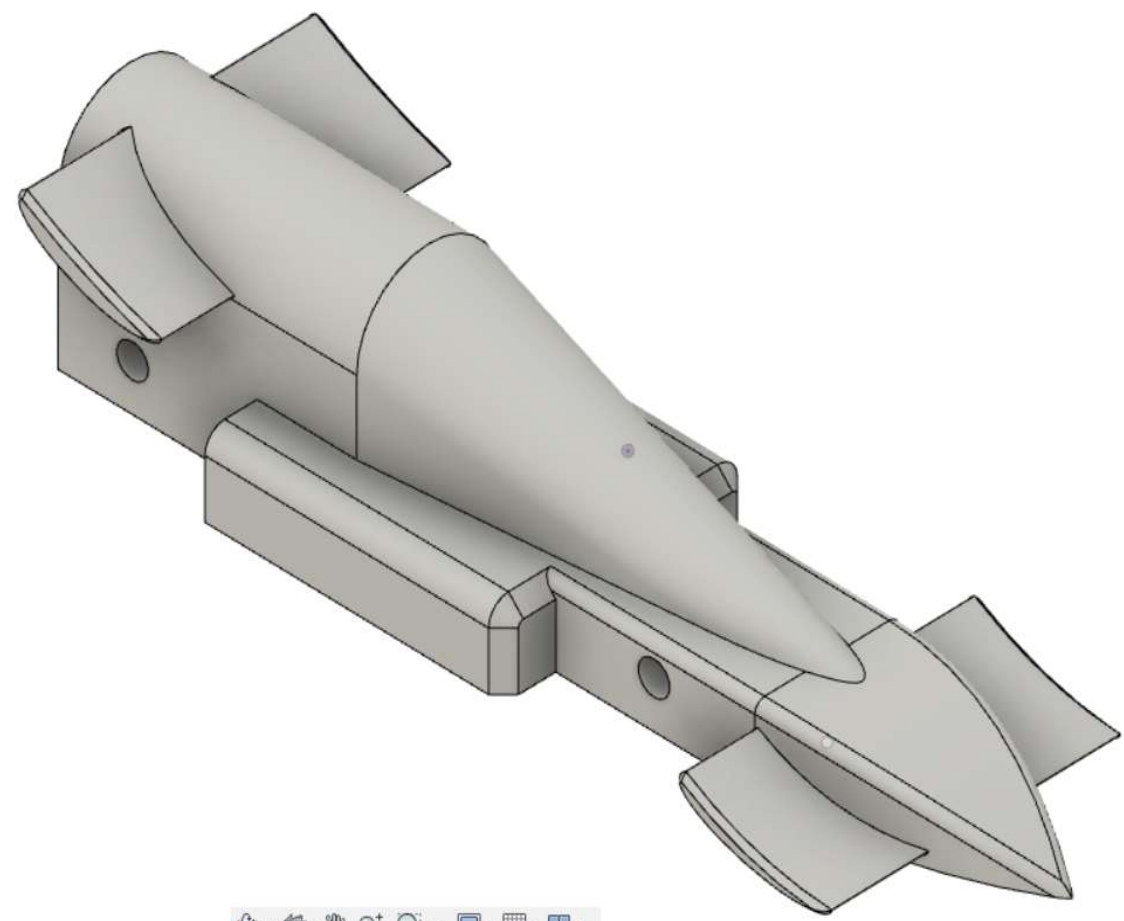
SOLID SURFACE SHEET METAL TOOLS

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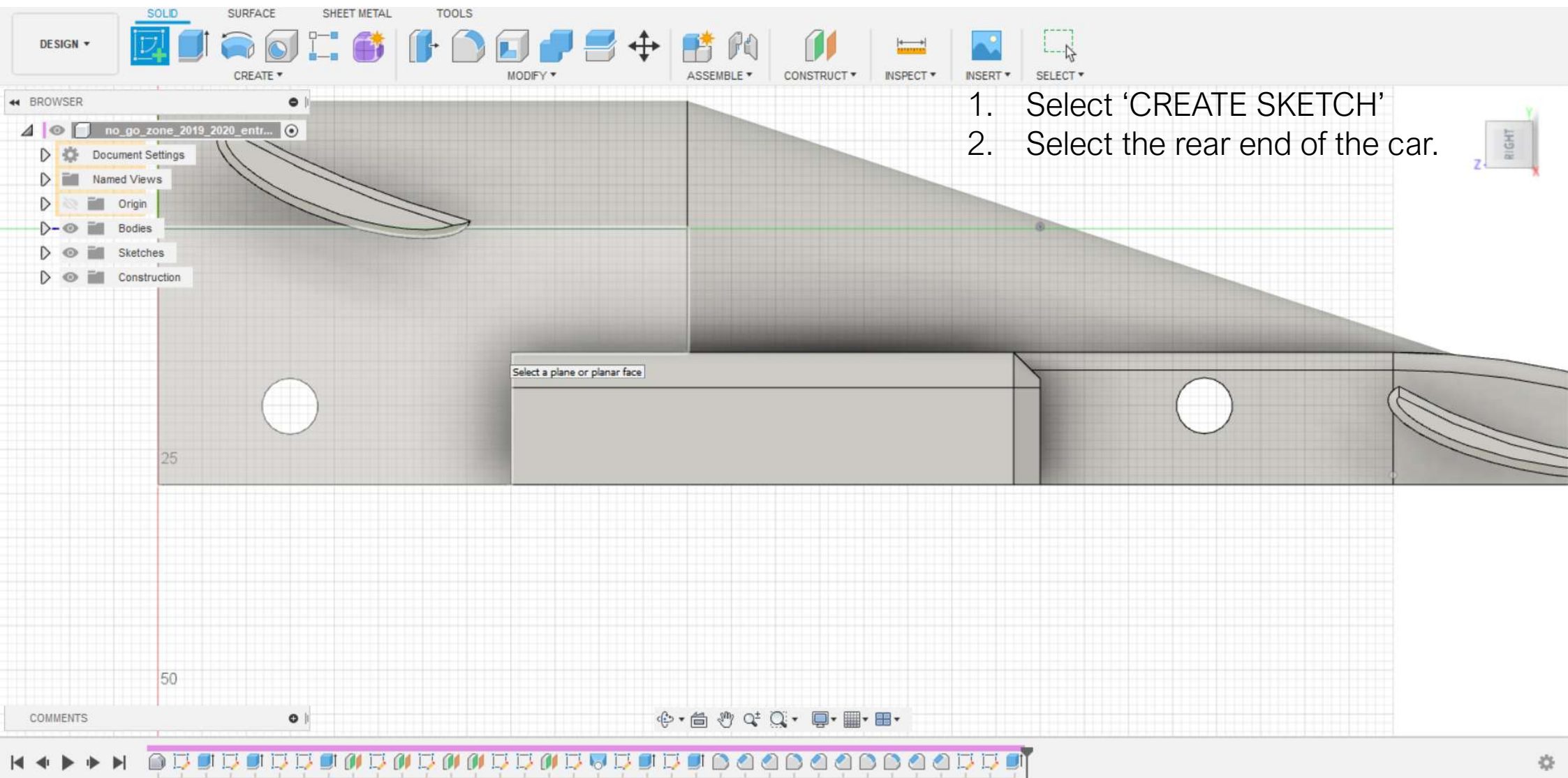


COMMENTS

Navigation icons: pan, rotate, zoom, etc.

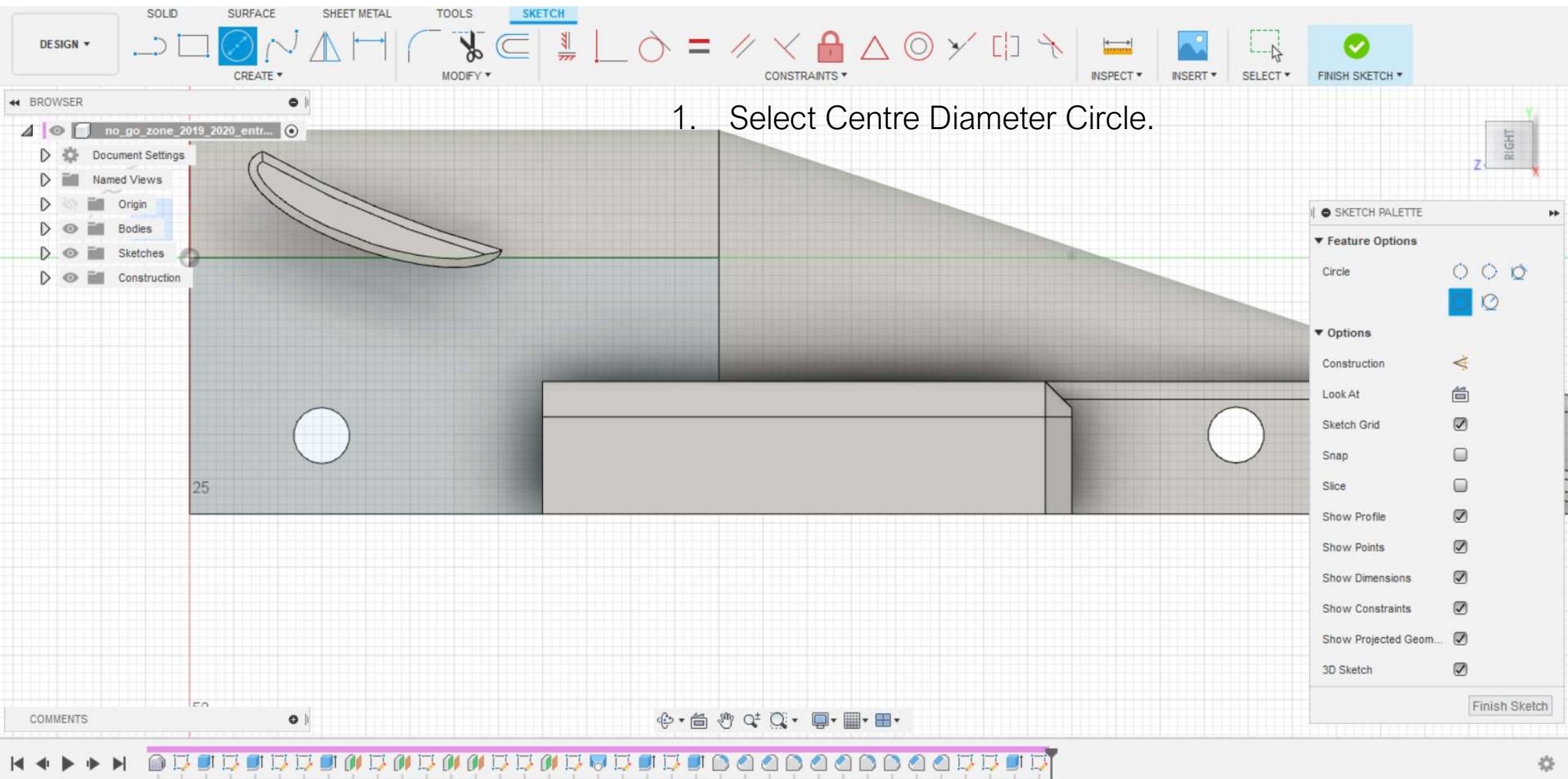
Feature tree icons showing a sequence of operations used to create the model.



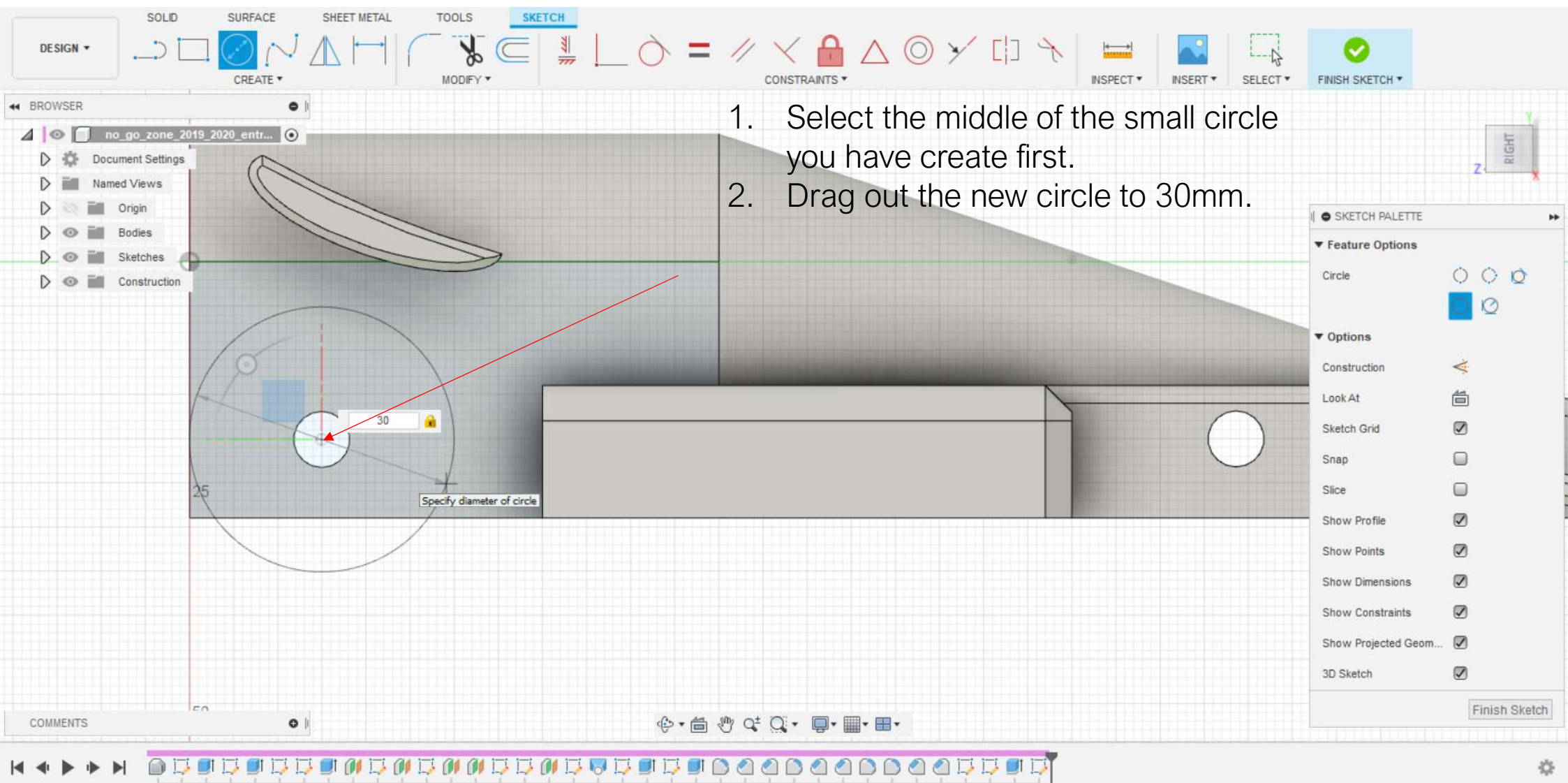


1. Select 'CREATE SKETCH'
2. Select the rear end of the car.





1. Select Centre Diameter Circle.

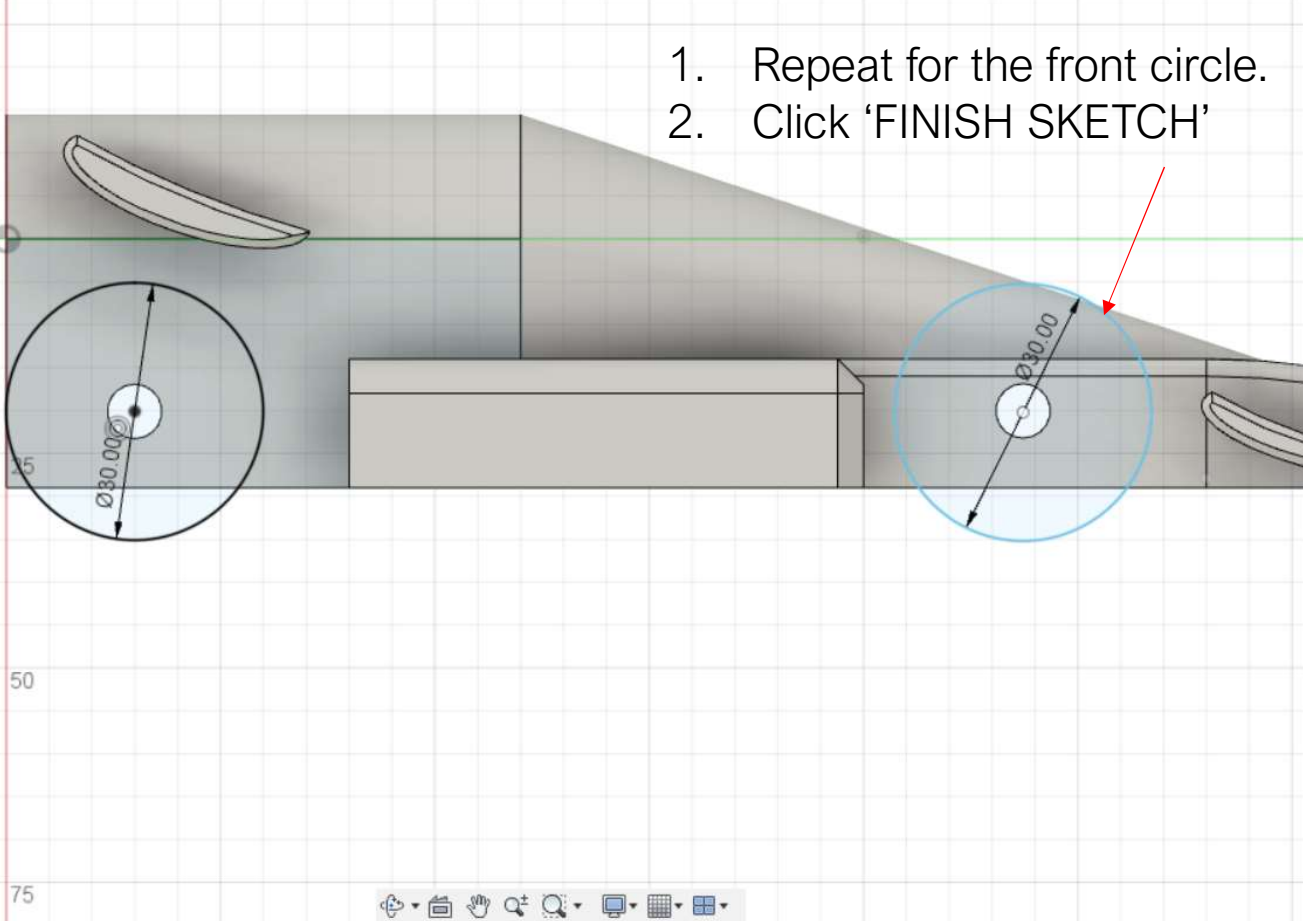
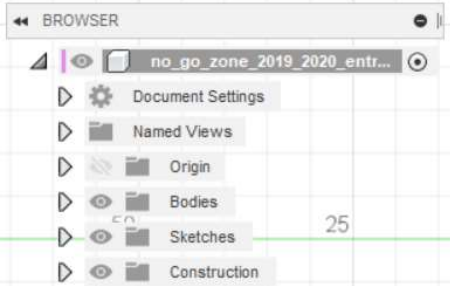
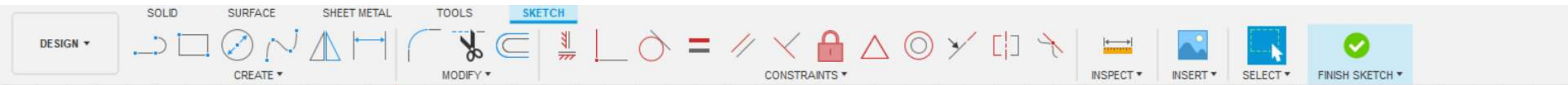


1. Select the middle of the small circle you have create first.
2. Drag out the new circle to 30mm.

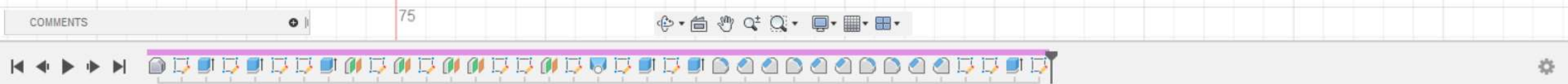
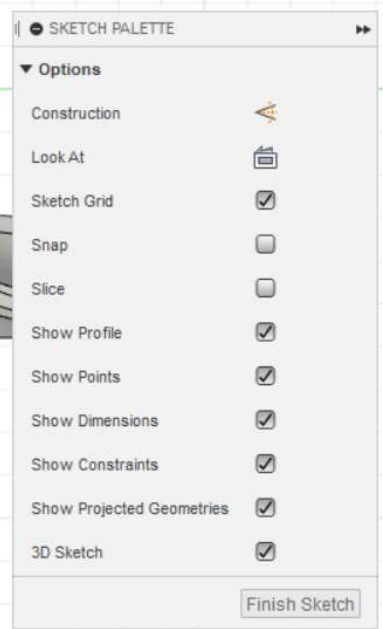
SKETCH PALETTE

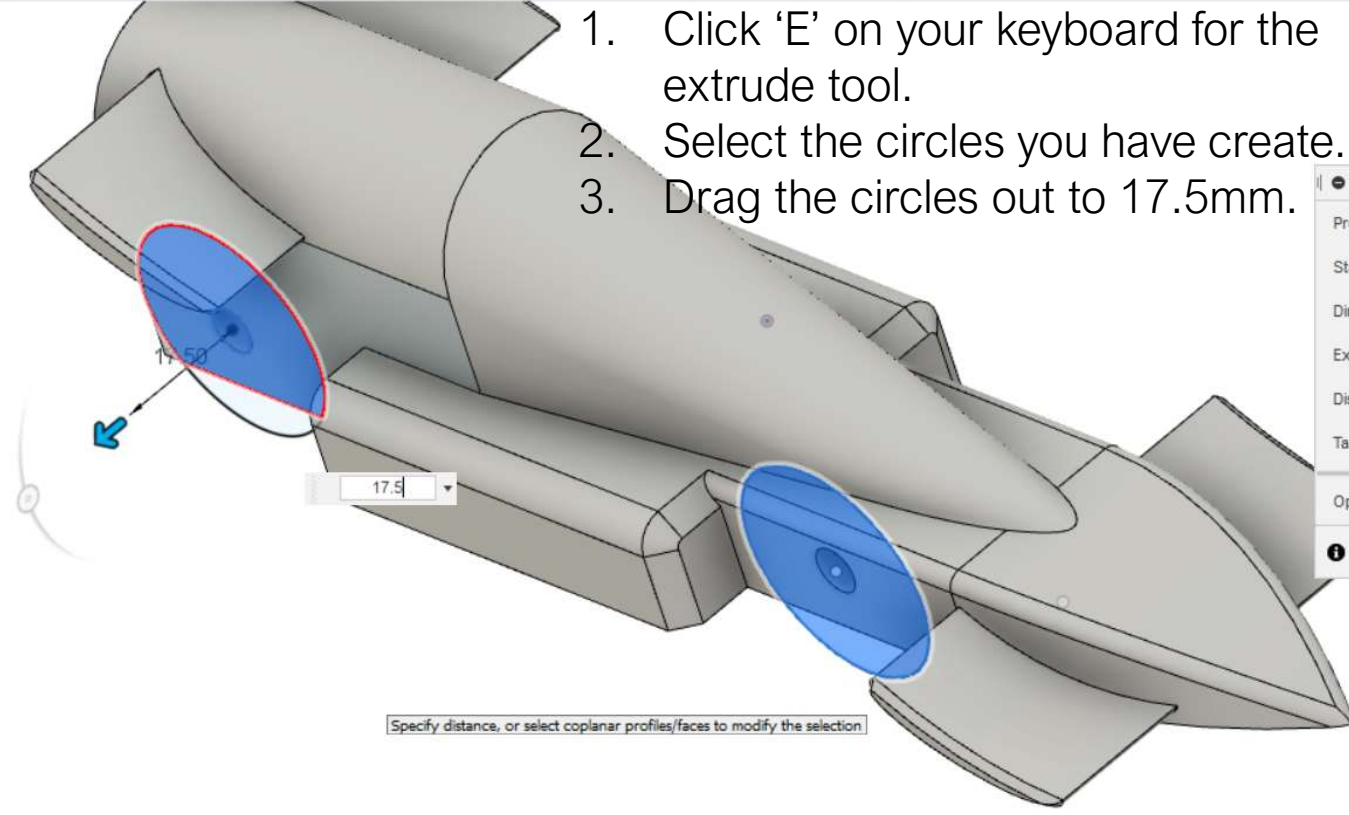
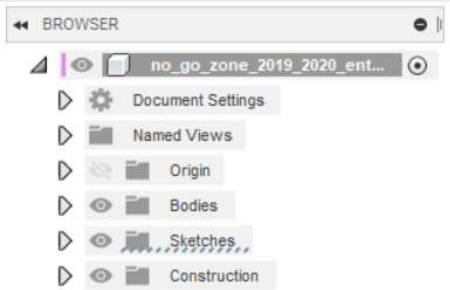
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- Options
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 - 3D Sketch

Finish Sketch

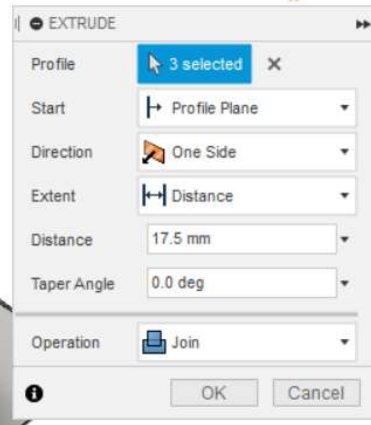


1. Repeat for the front circle.
2. Click 'FINISH SKETCH'

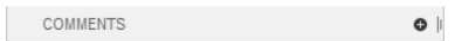




1. Click 'E' on your keyboard for the extrude tool.
2. Select the circles you have create.
3. Drag the circles out to 17.5mm.



Specify distance, or select coplanar profiles/faces to modify the selection



Multiple selections



DESIGN ▾

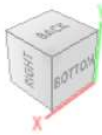
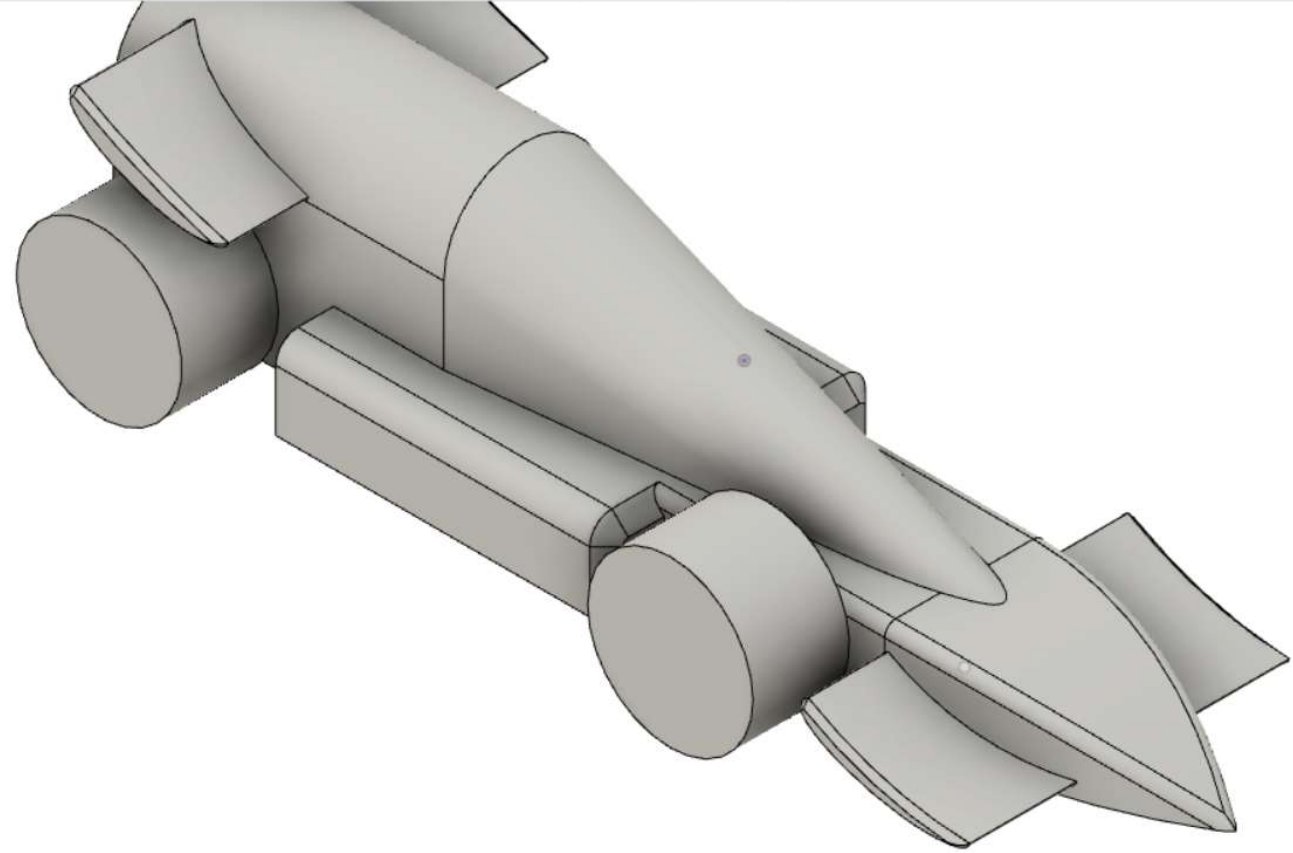
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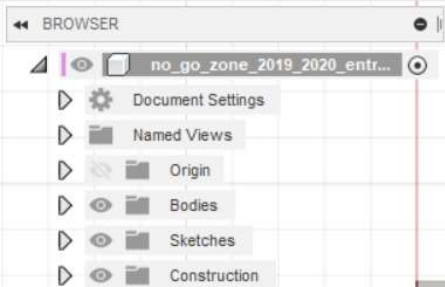
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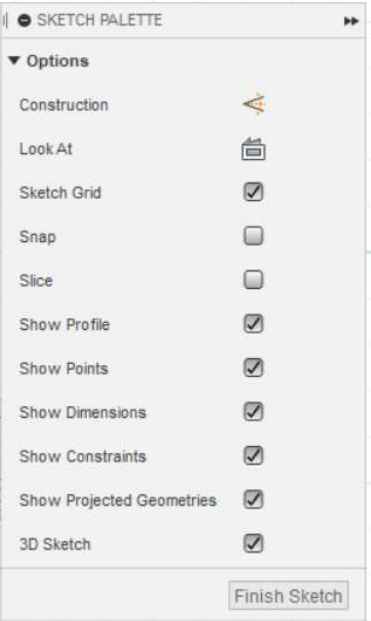
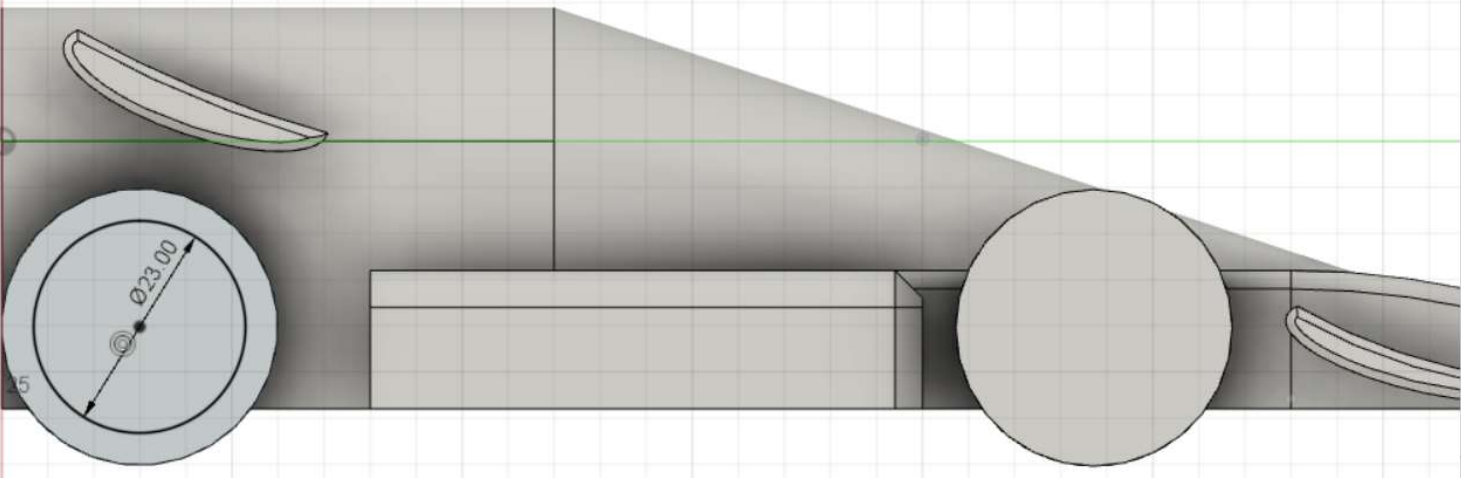
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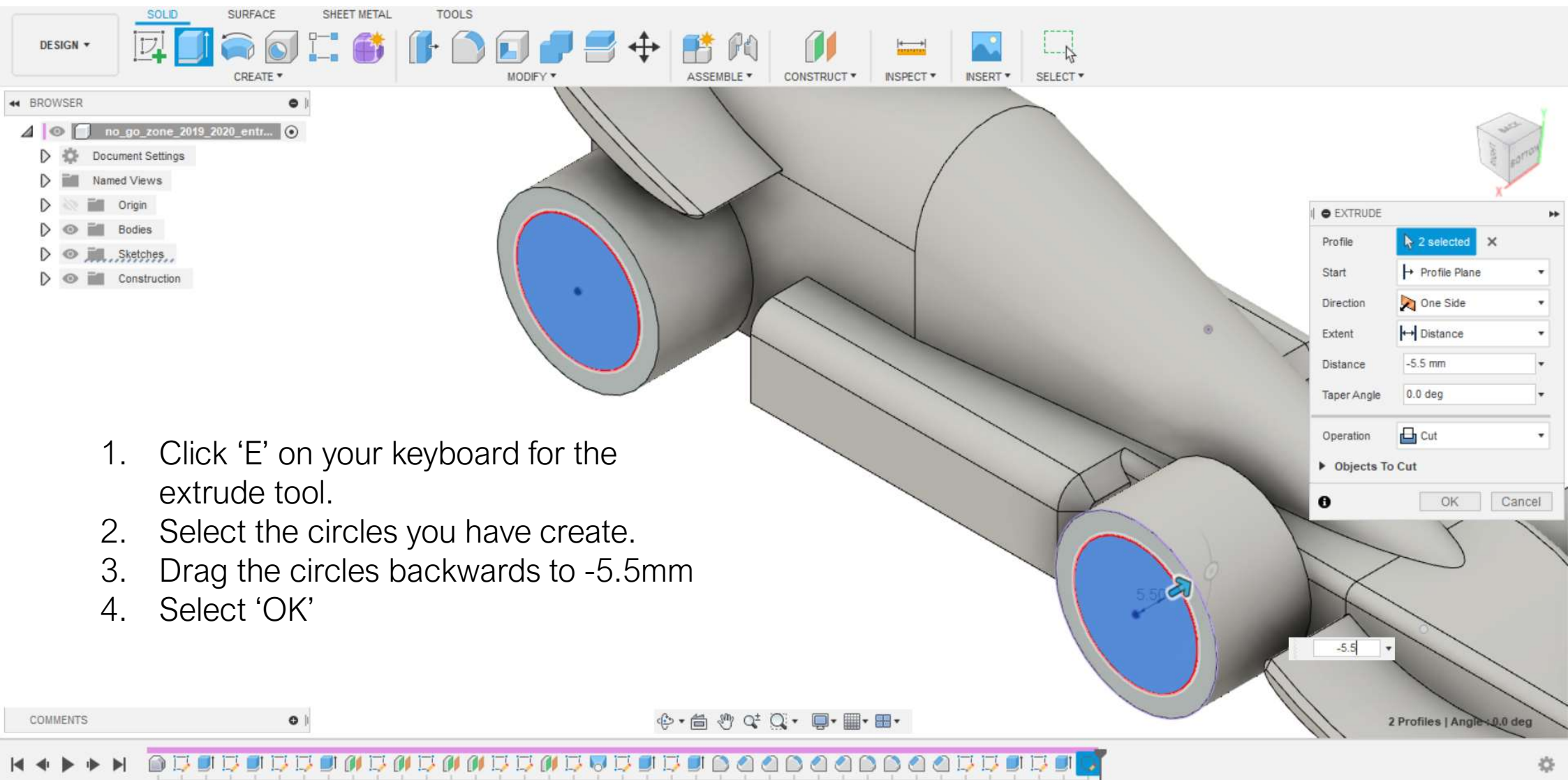


COMMENTS



1. Select 'CREATE SKETCH'
2. Select 'Centre Diameter Circle'
3. Create a circle in the middle of the wheel- 23mm





1. Click 'E' on your keyboard for the extrude tool.
2. Select the circles you have create.
3. Drag the circles backwards to -5.5mm
4. Select 'OK'

DESIGN

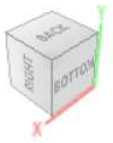
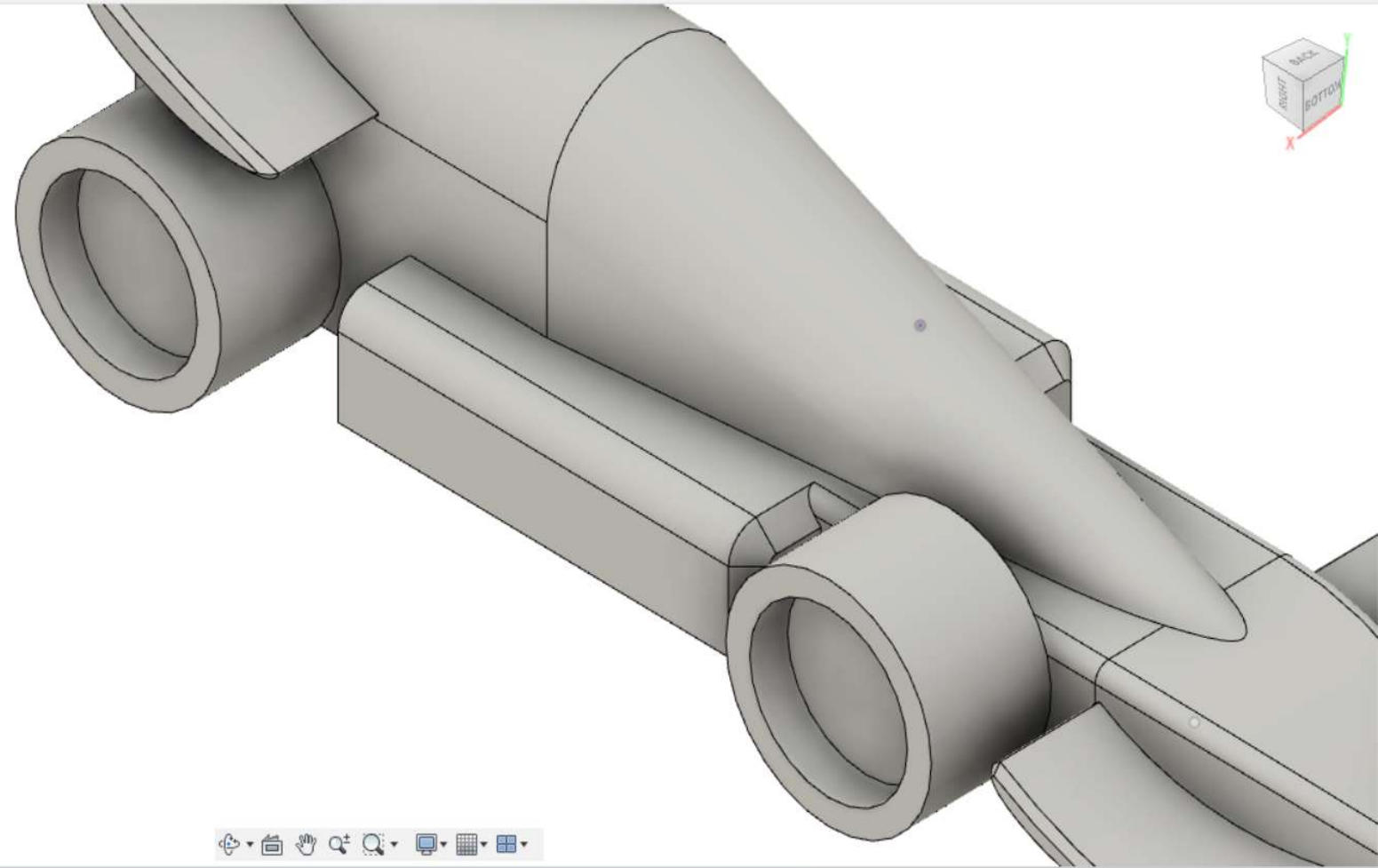
SOLID SURFACE SHEET METAL TOOLS

CREATE MODIFY ASSEMBLE CONSTRUCT INSPECT INSERT SELECT

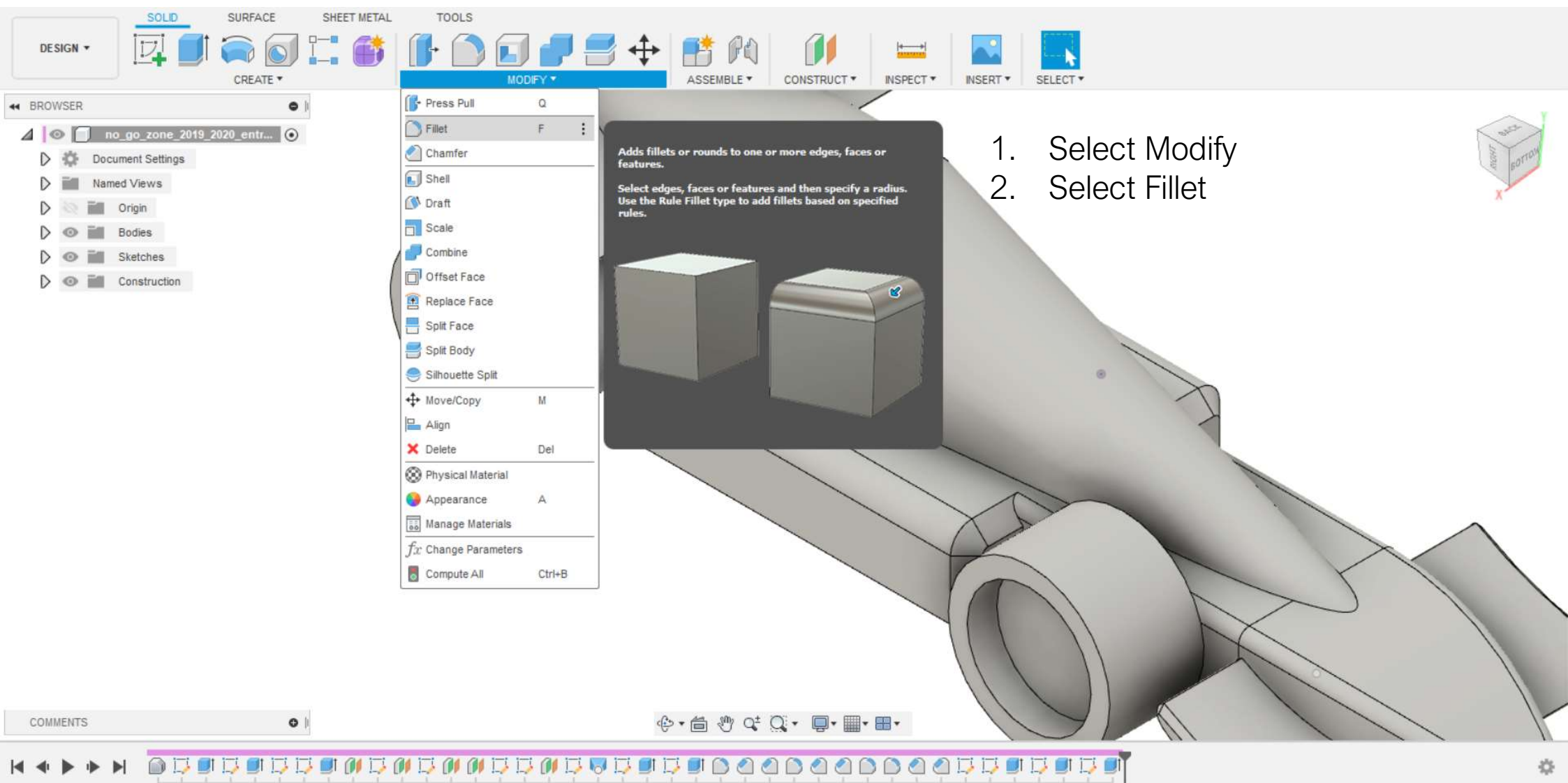
BROWSER

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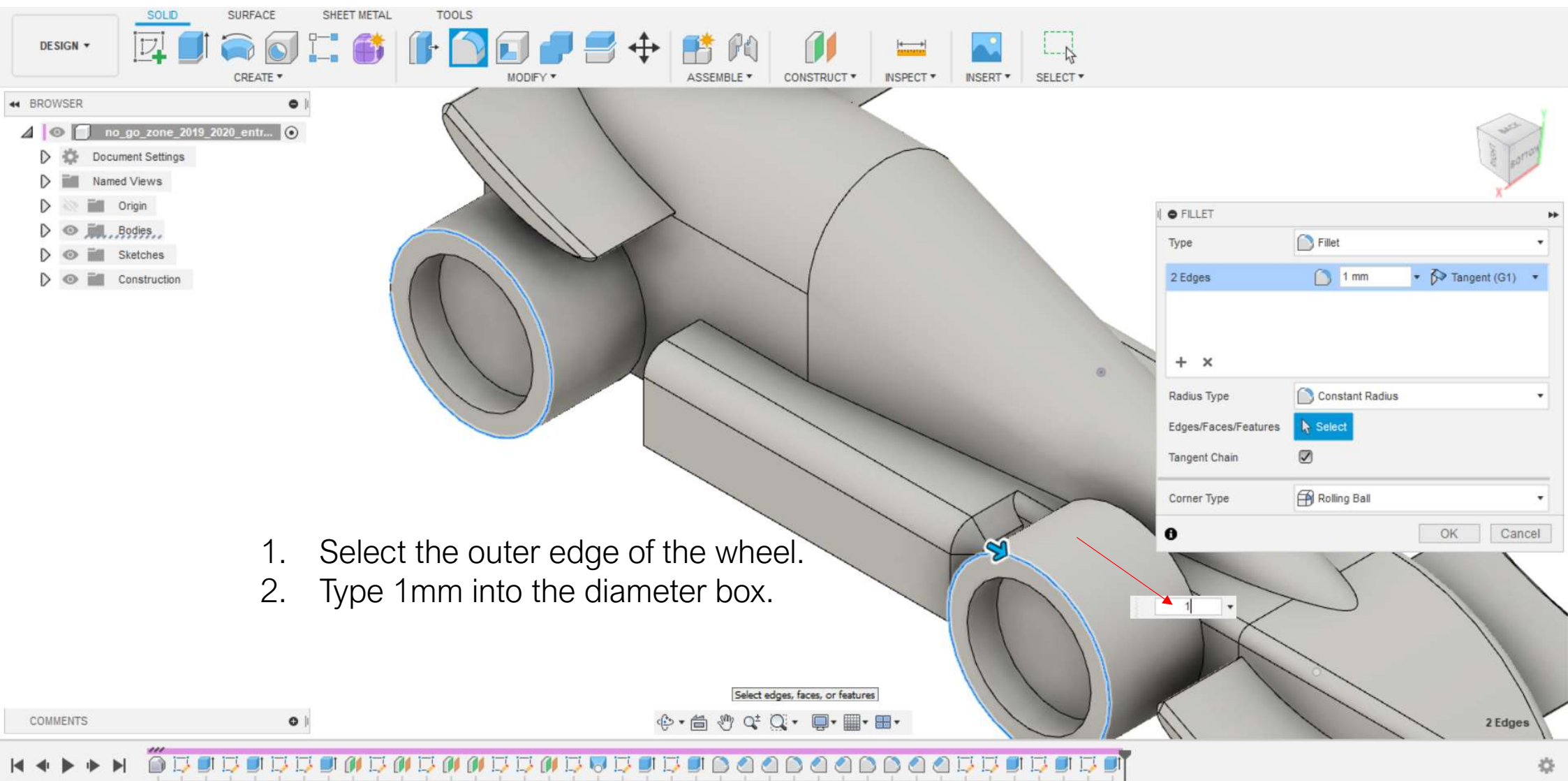


COMMENTS



1. Select Modify
2. Select Fillet





DESIGN ▾

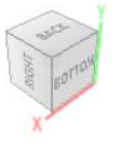
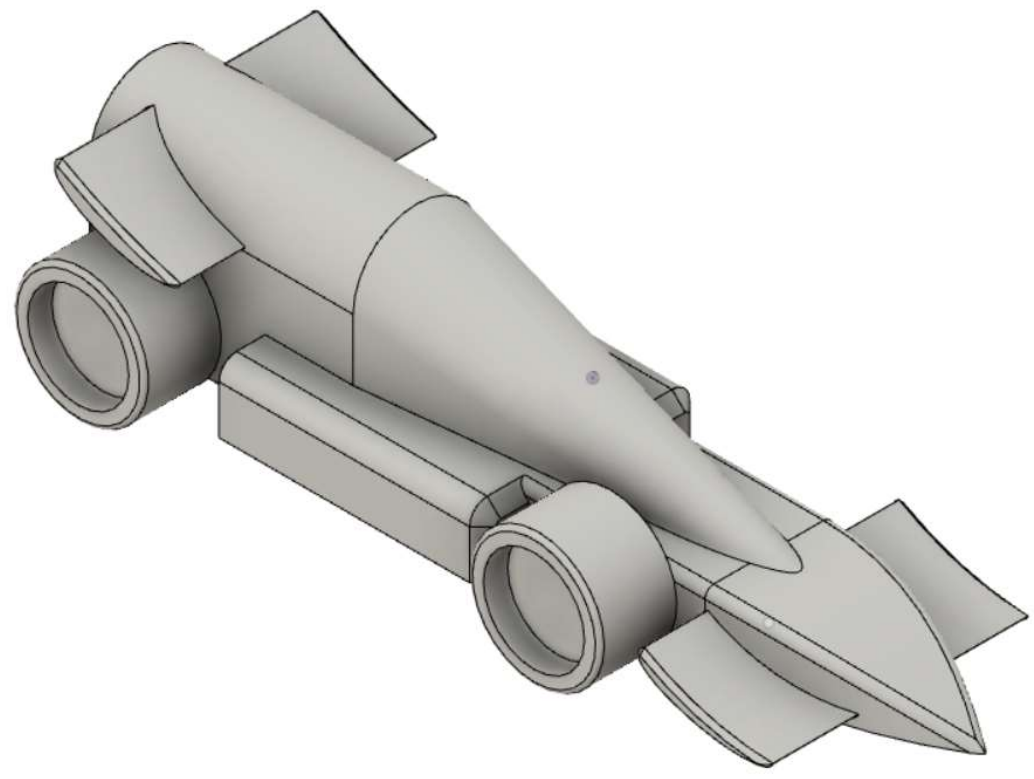
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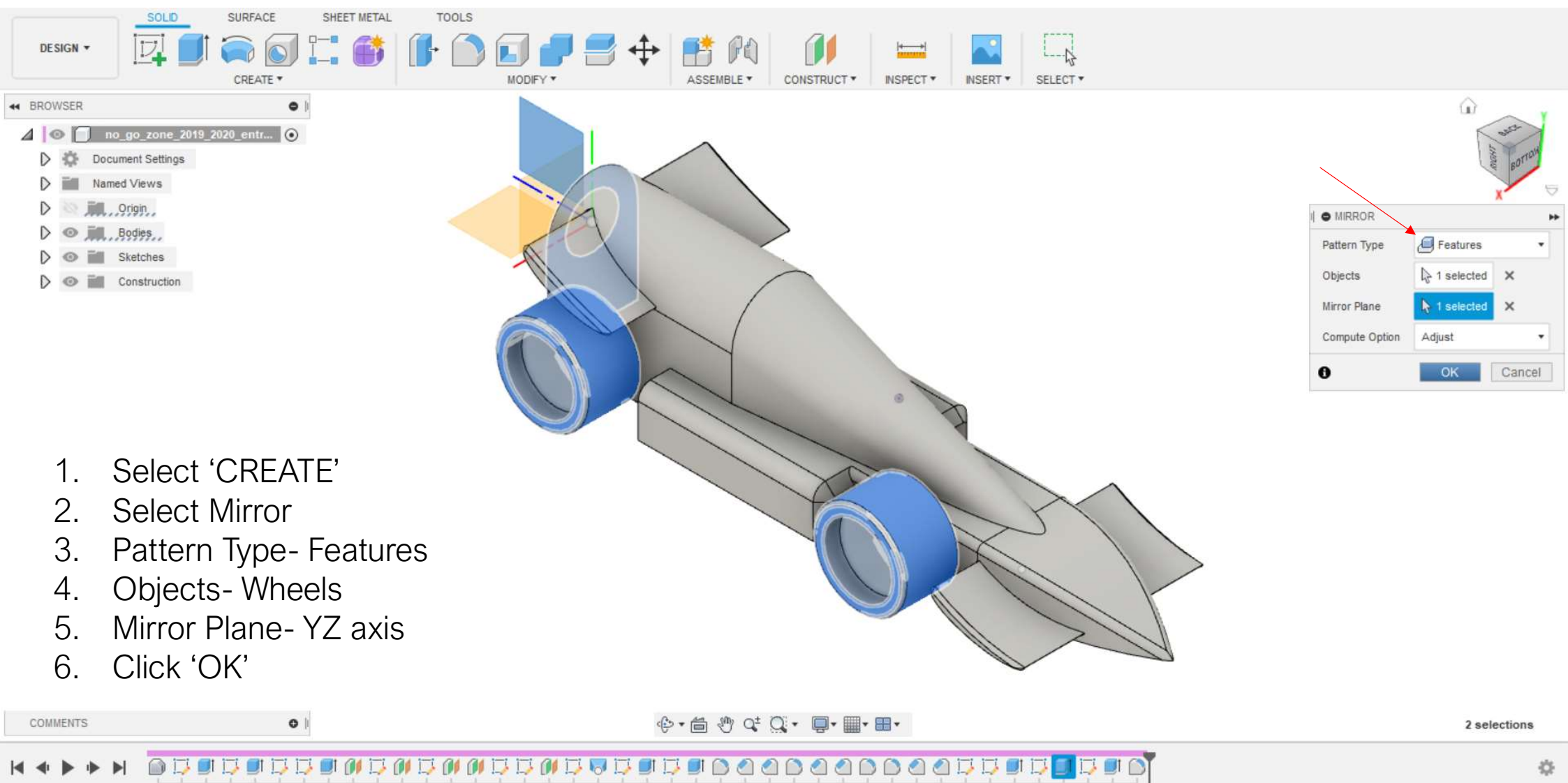


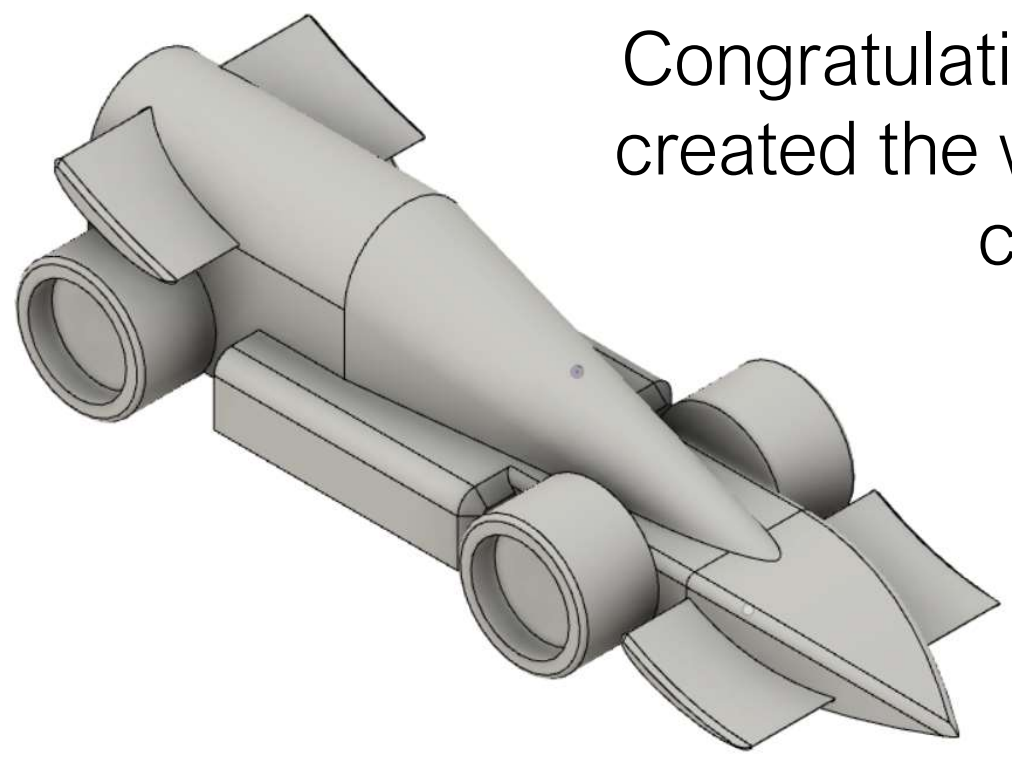
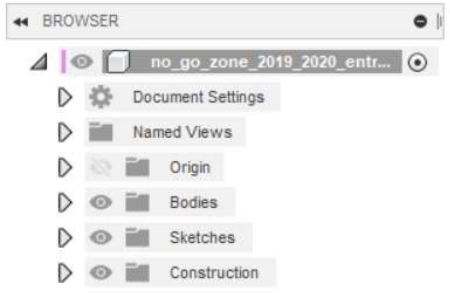
COMMENTS

Navigation icons: Home, Previous, Next, Find, Zoom, Rotate, etc.

History bar with numerous small icons representing previous steps in the design process.







Congratulations, you have created the wheels to your car.

