

# BUILDING ROBOTS WITH 3D BUILDER

## PART 1: GETTING STARTED

### STEP 1: Download VEX CAD Files

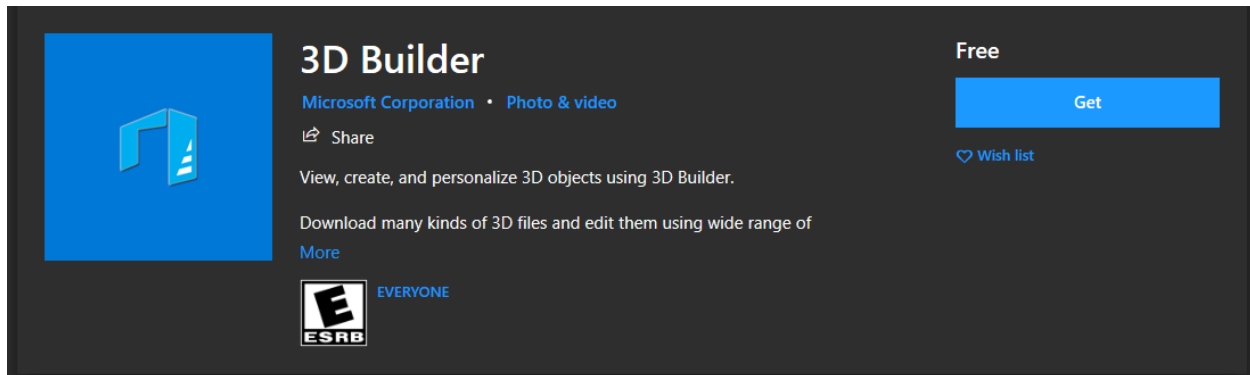
#### Release 1

<https://drive.google.com/file/d/1iuC3fPM0gCPITPYi9LIG-95nVCQrxOIa/view?usp=sharing>

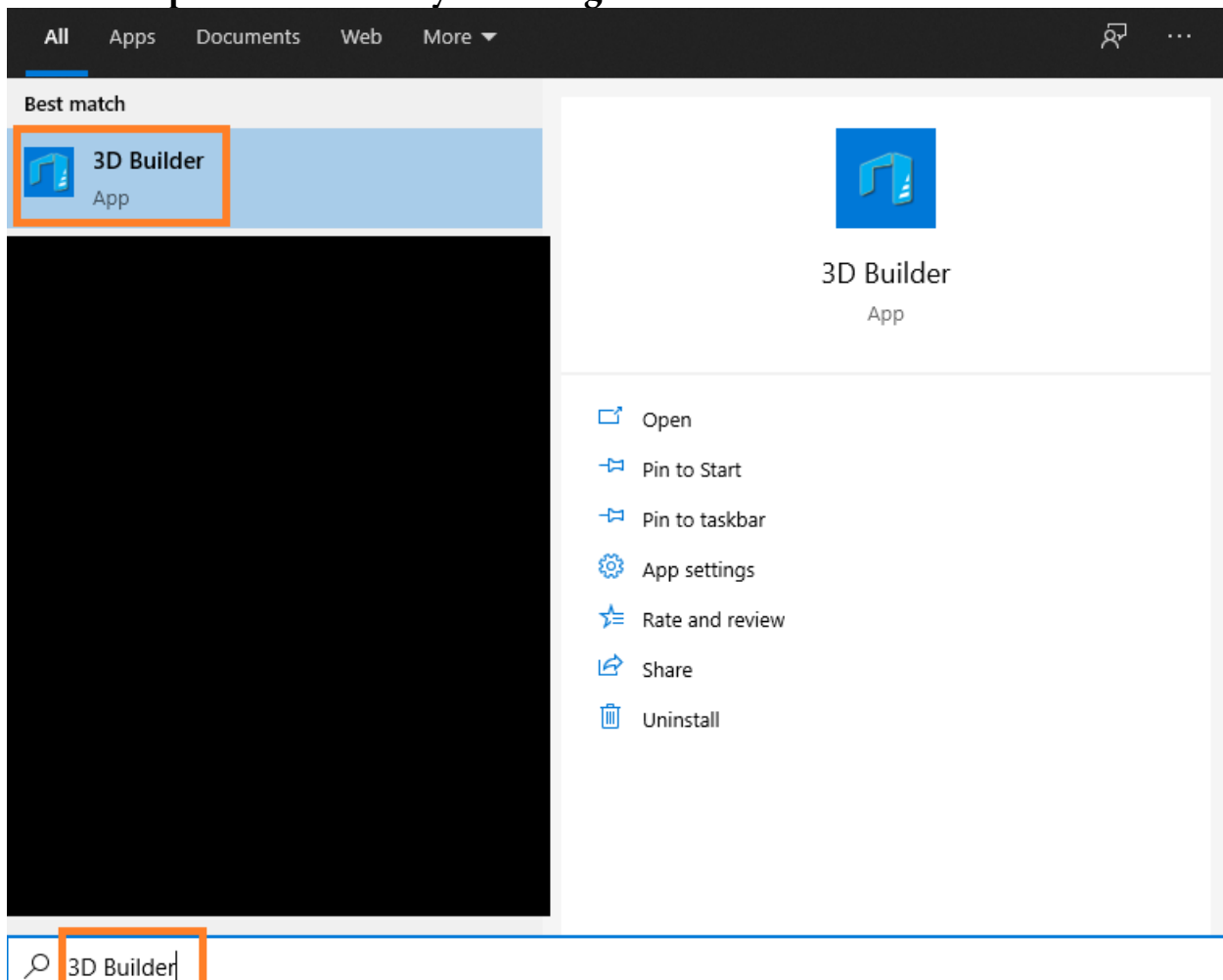
#### Release 2 [Download this one]

<https://drive.google.com/file/d/1NHQzqkdNqfABen3byKmIViC39rI0yVtK/view?usp=sharing>

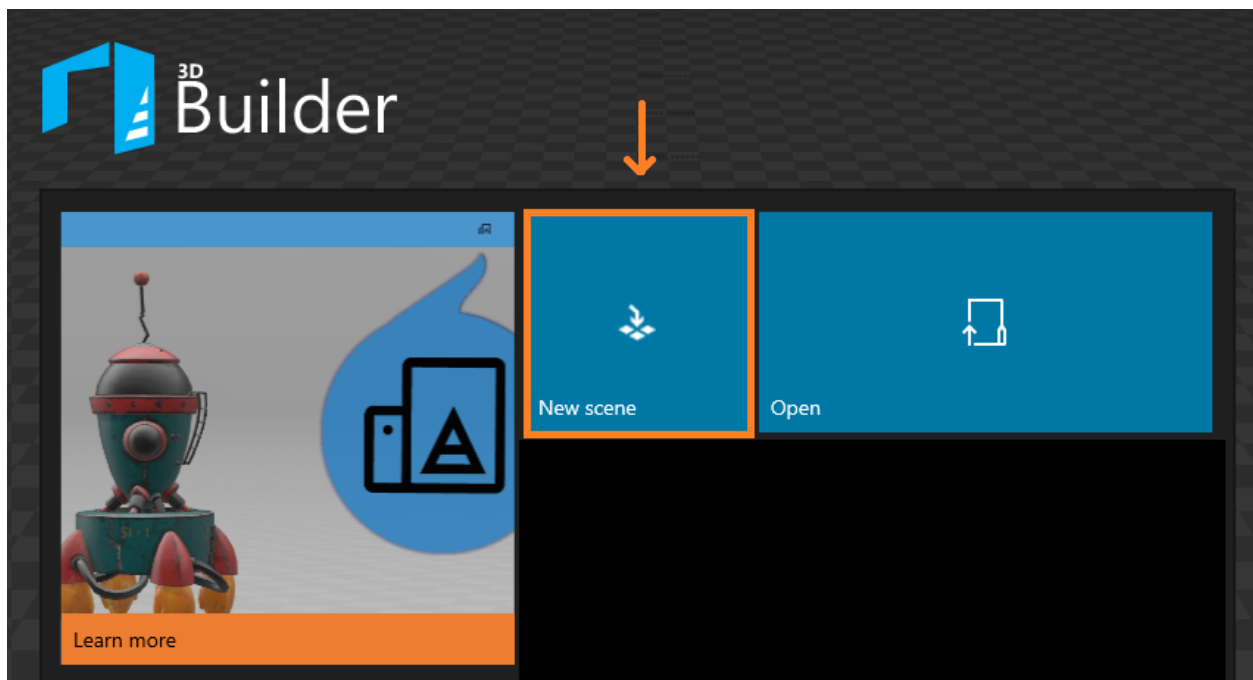
### STEP 2: Install 3D Builder from Windows Store



### STEP 3: Open 3D Builder by searching in start menu

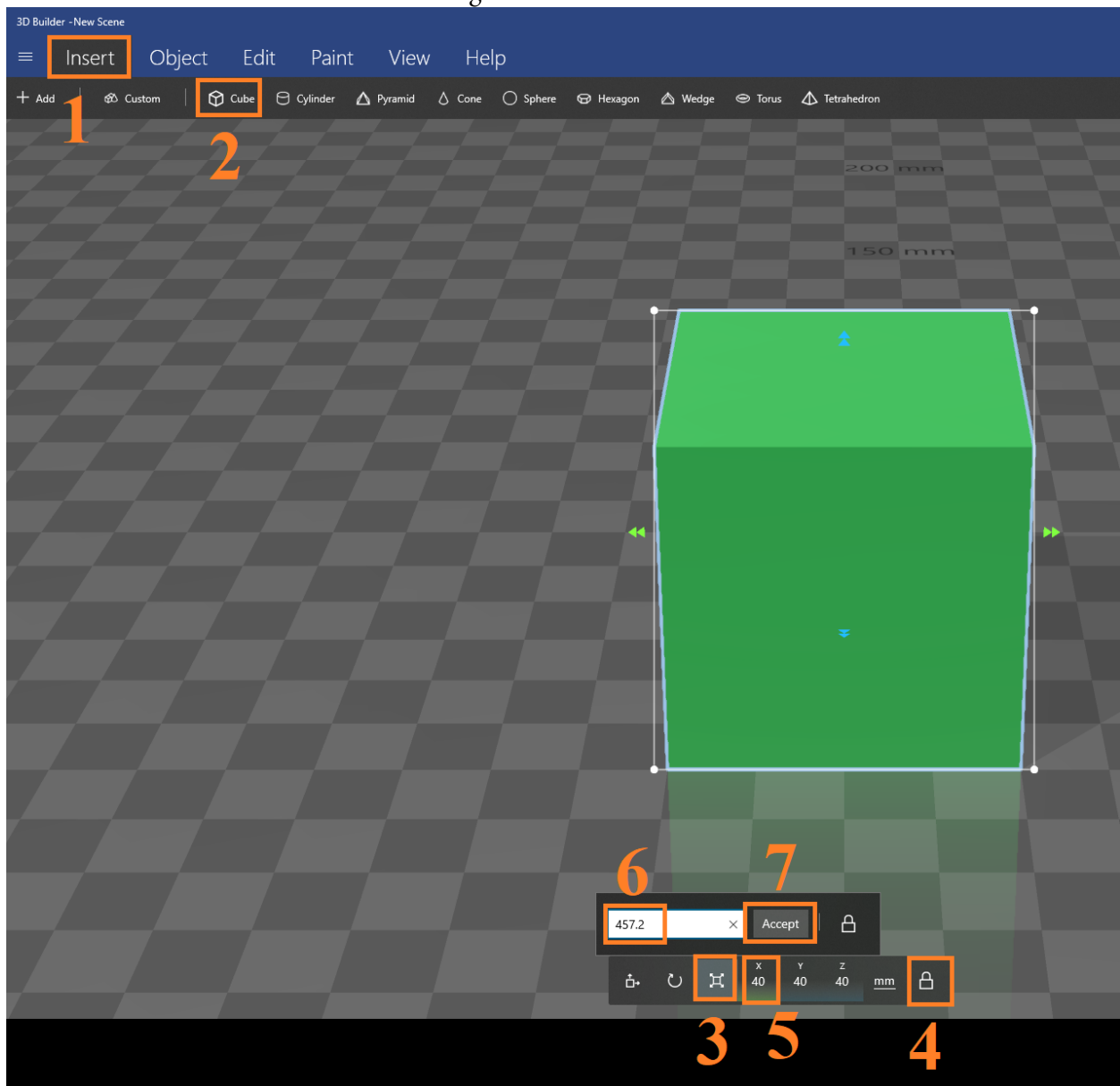


#### STEP 4: Click New scene

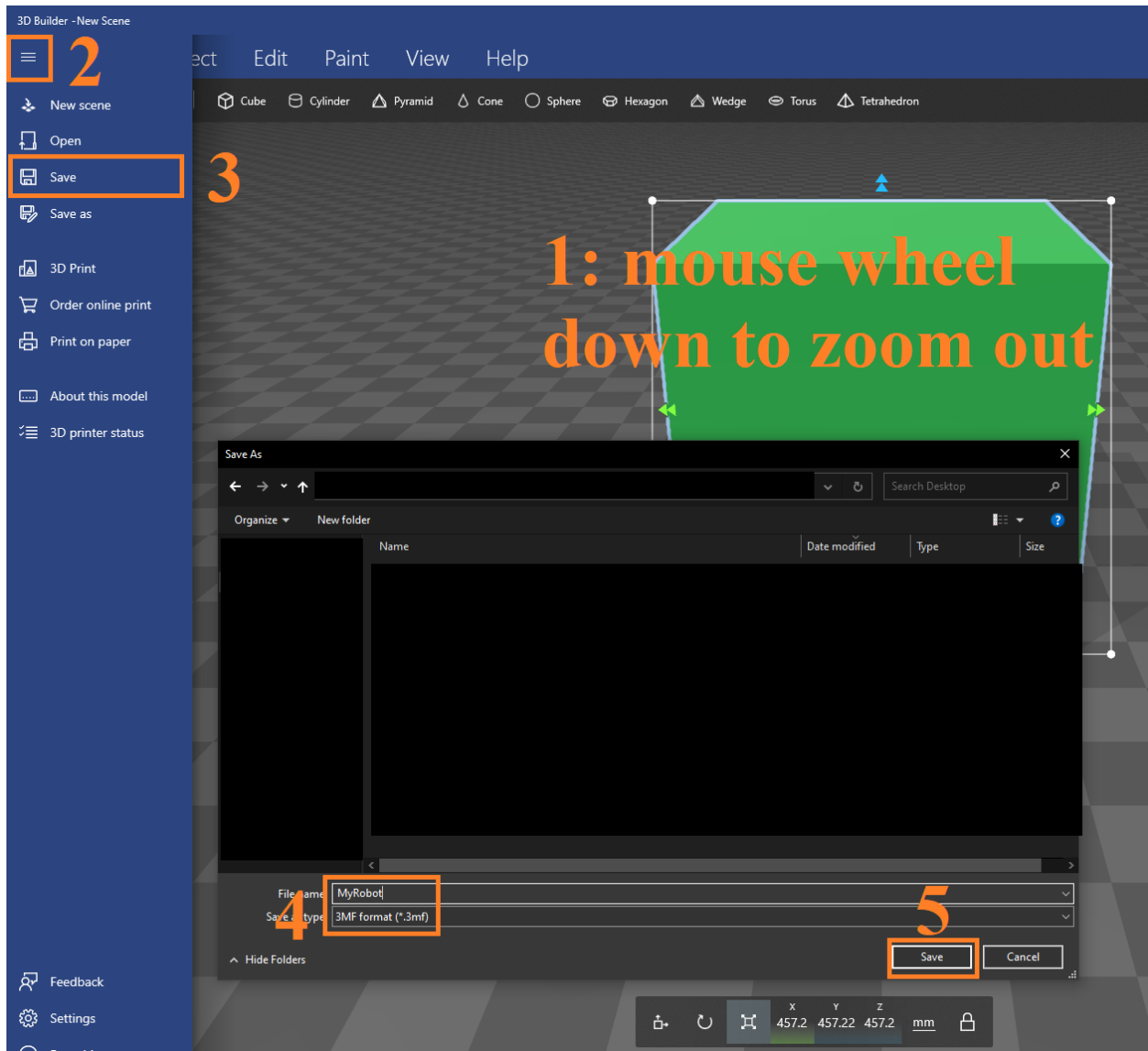


#### STEP 5: Create Cube (457.2 mm by 457.2 mm by 457.2 mm)

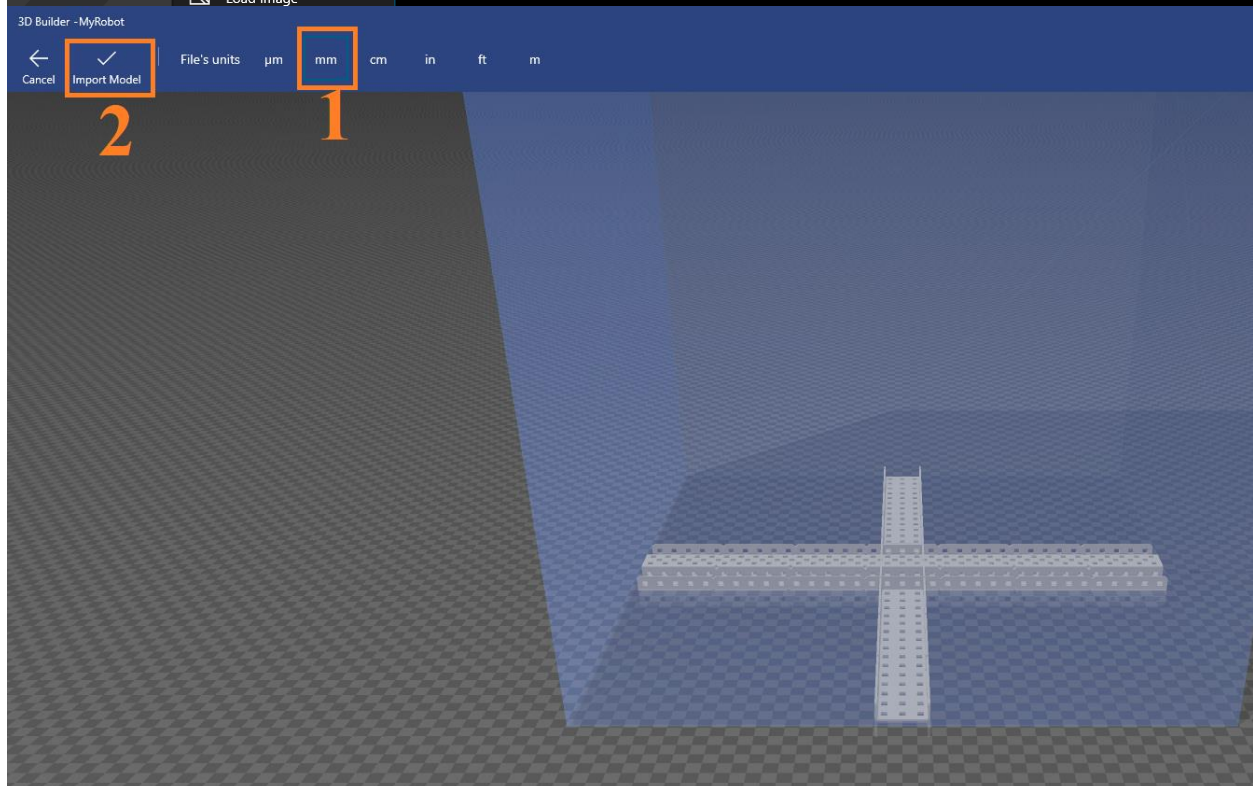
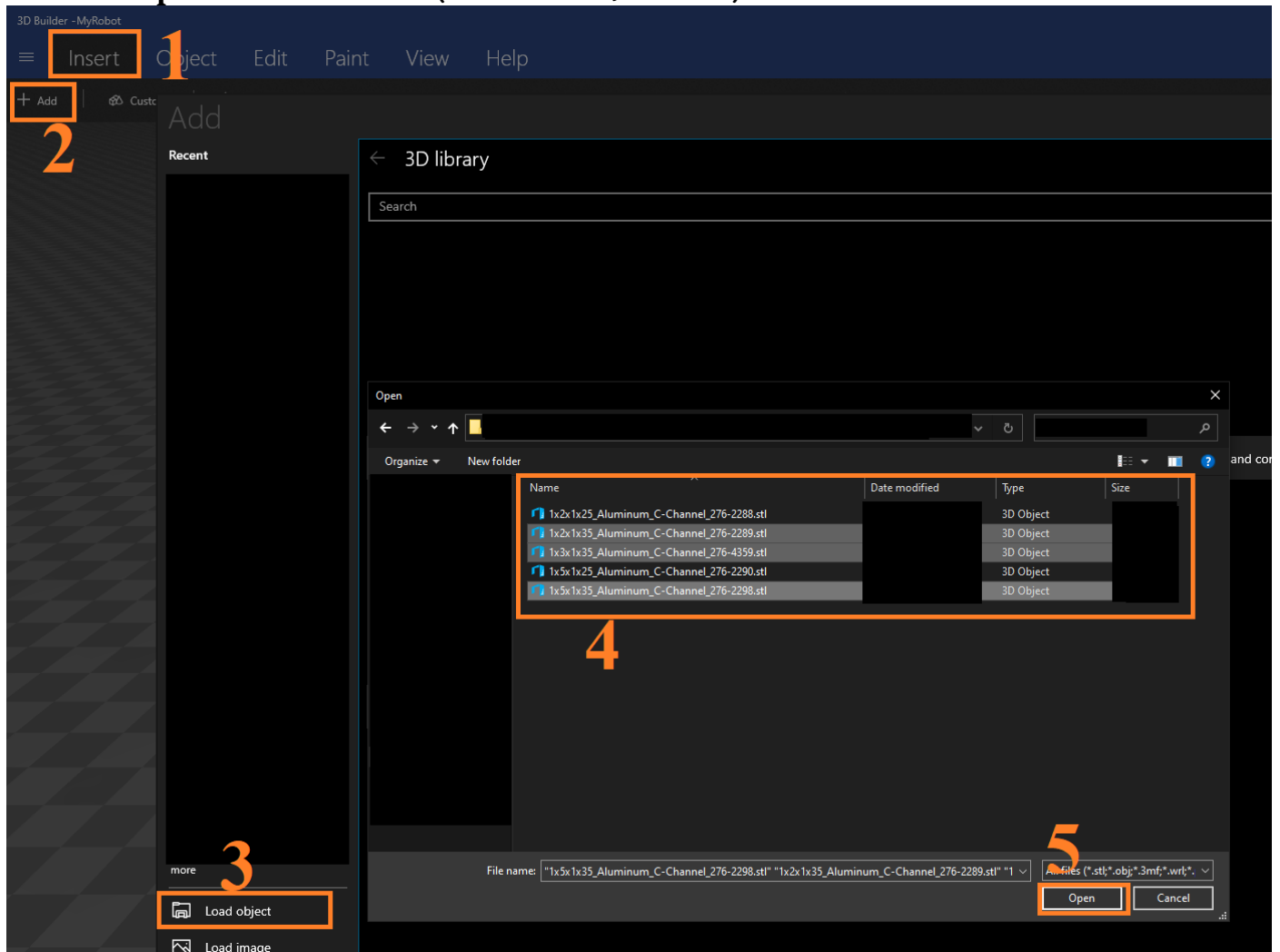
- This is a reference cube for building robot. Robot cannot exceed 18"x18"x18" = 457.2 mm.

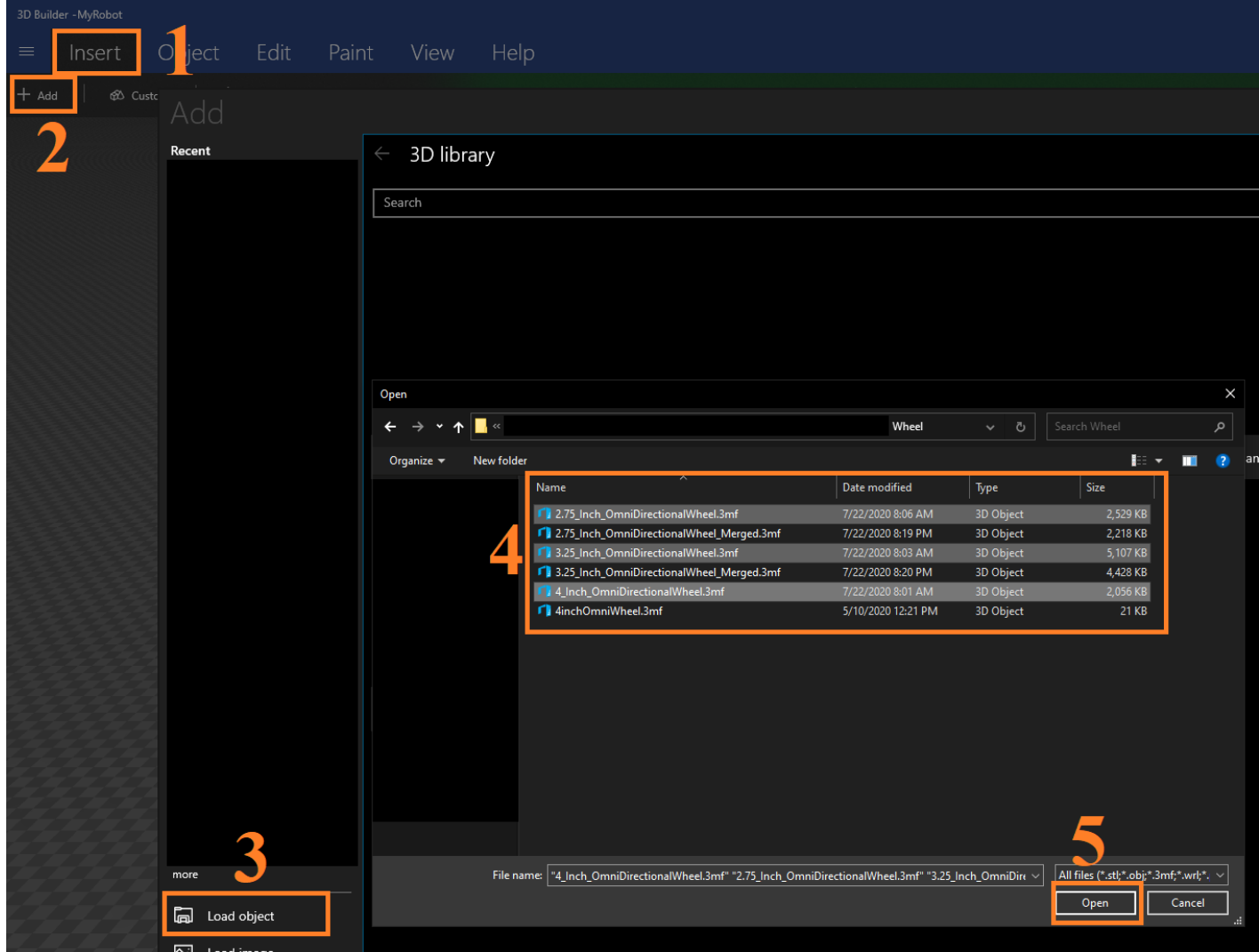


## STEP 6: Save

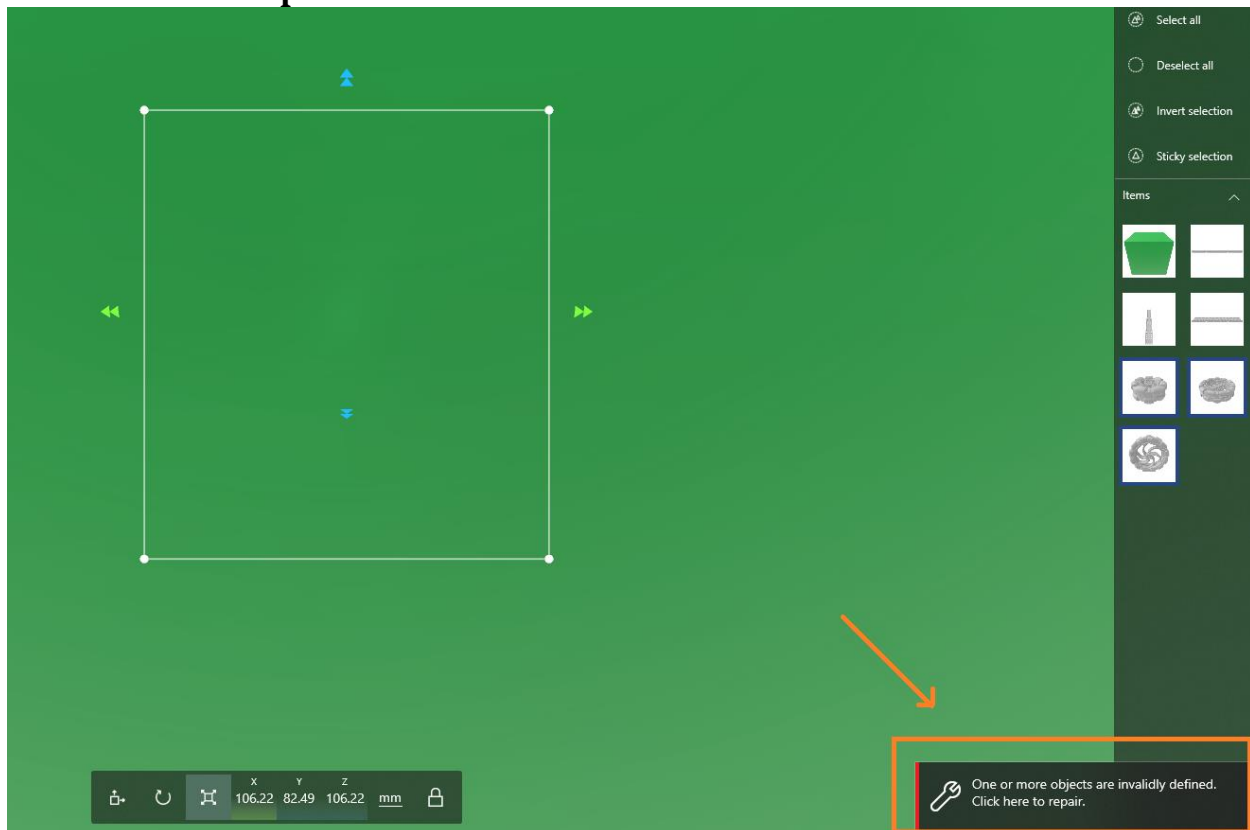


## STEP 7: Open VEX Materials (C-Channels, Wheels)



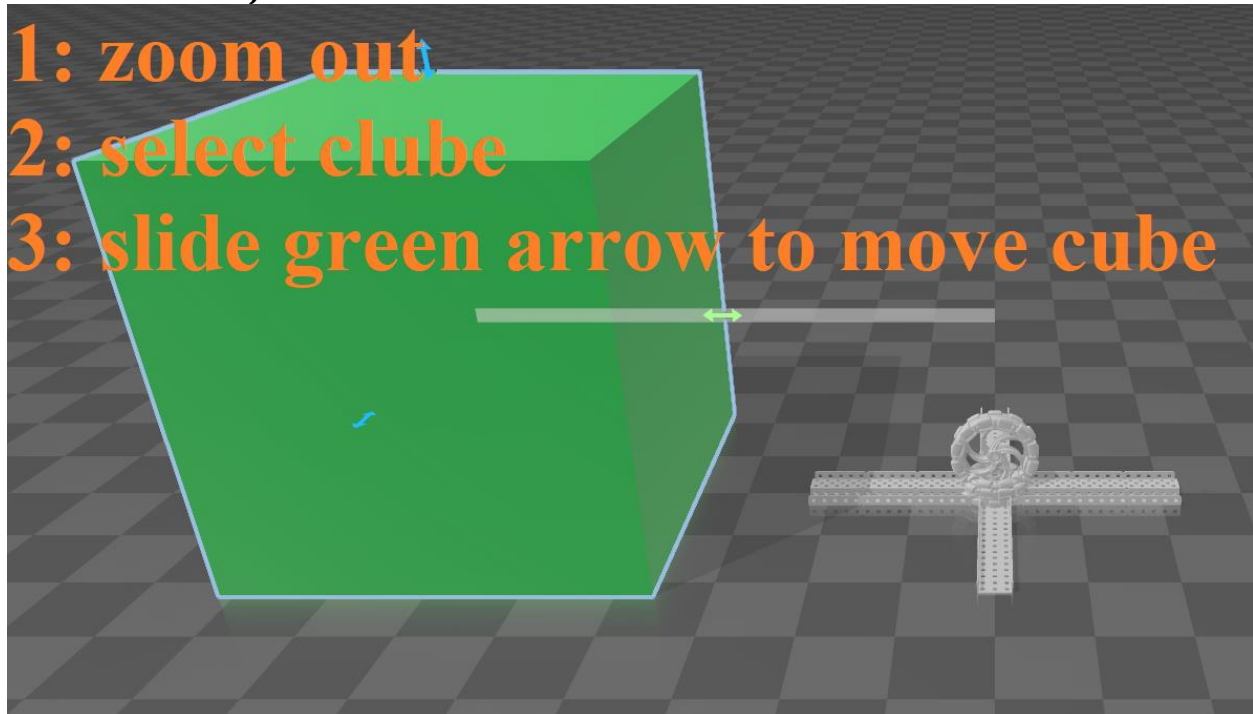


## STEP 8: Click Repair



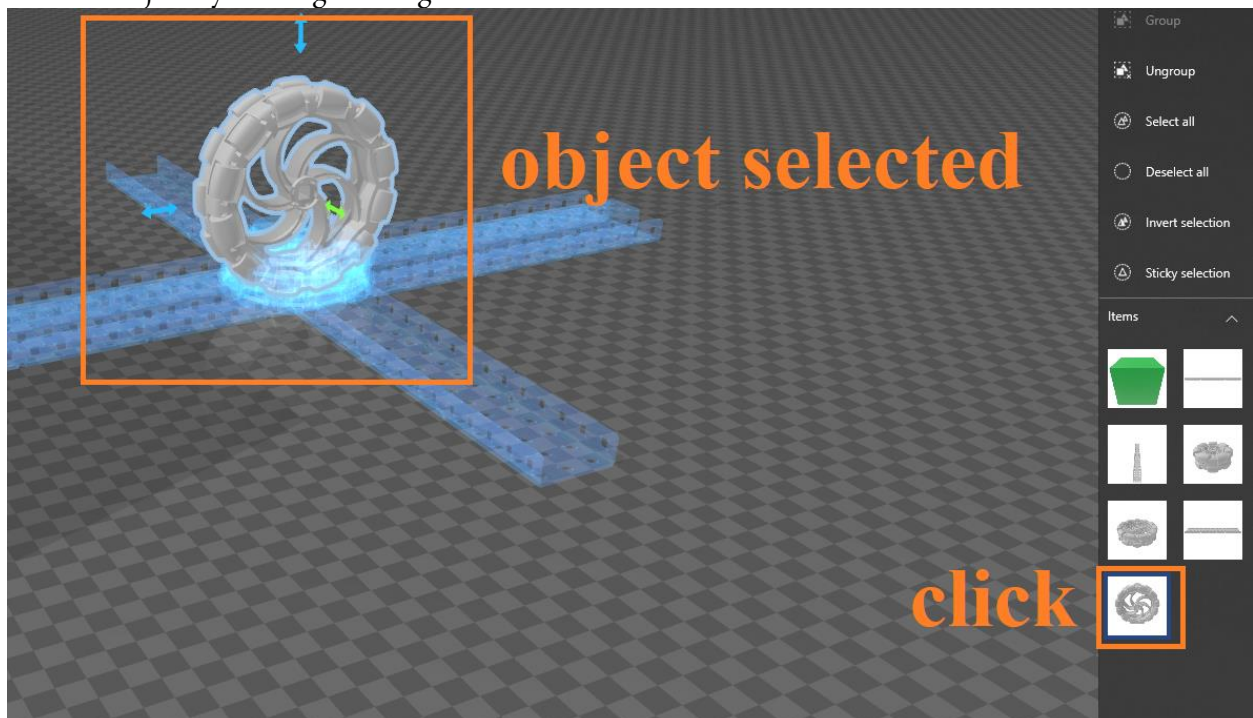
## STEP 9: See Objects

- 1: zoom out
- 2: select cube
- 3: slide green arrow to move cube



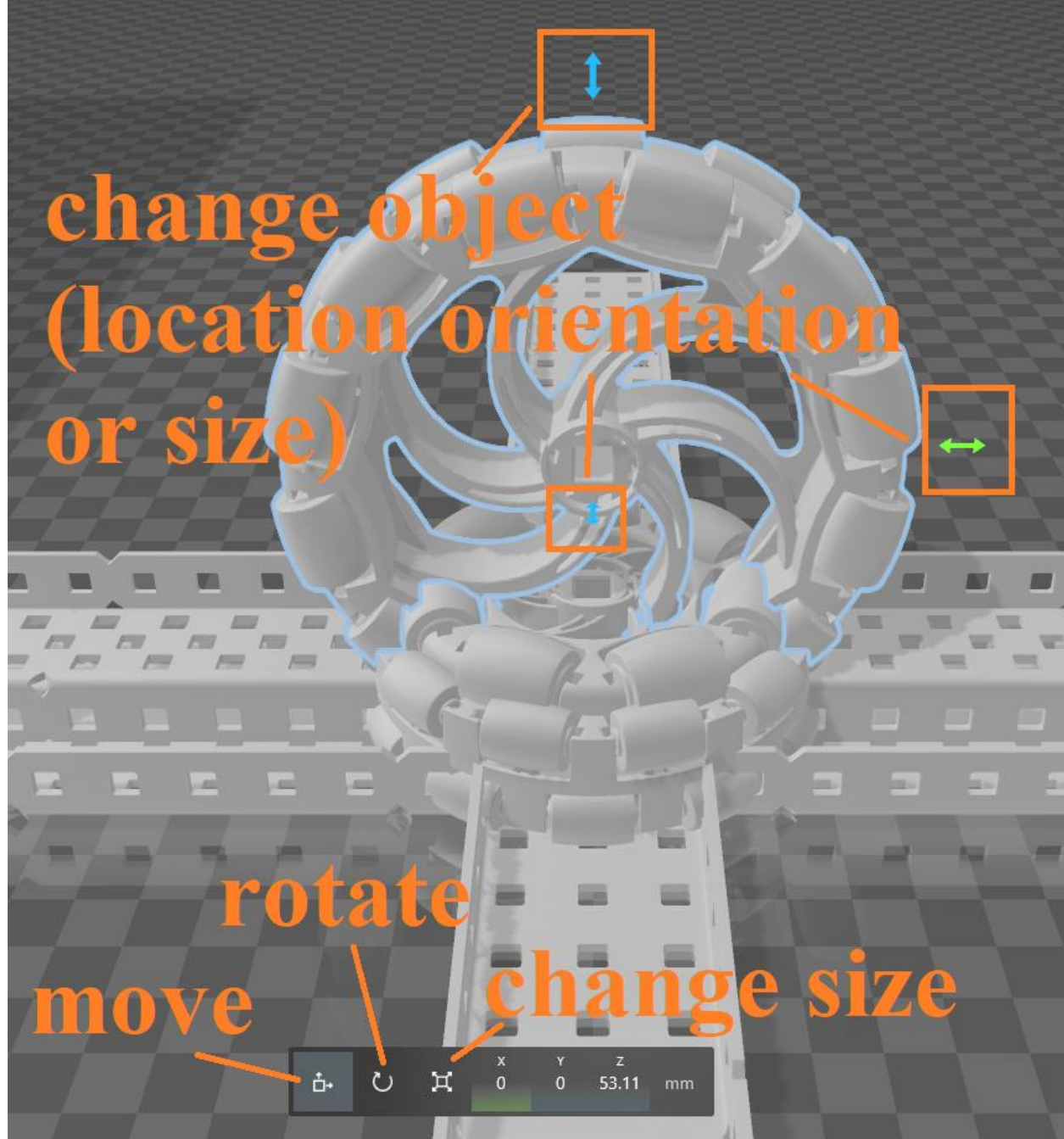
## PART 2: SKILLS

1. Zoom in zoom out with mouse wheel
2. Look around by dragging
3. Move around playground by holding Control and dragging OR drag with right click
4. CTR+Z: undo
5. CTR+Y: redo
6. CTR+S: save
7. CTR+D: deselect all
8. Select object by clicking or using Items list



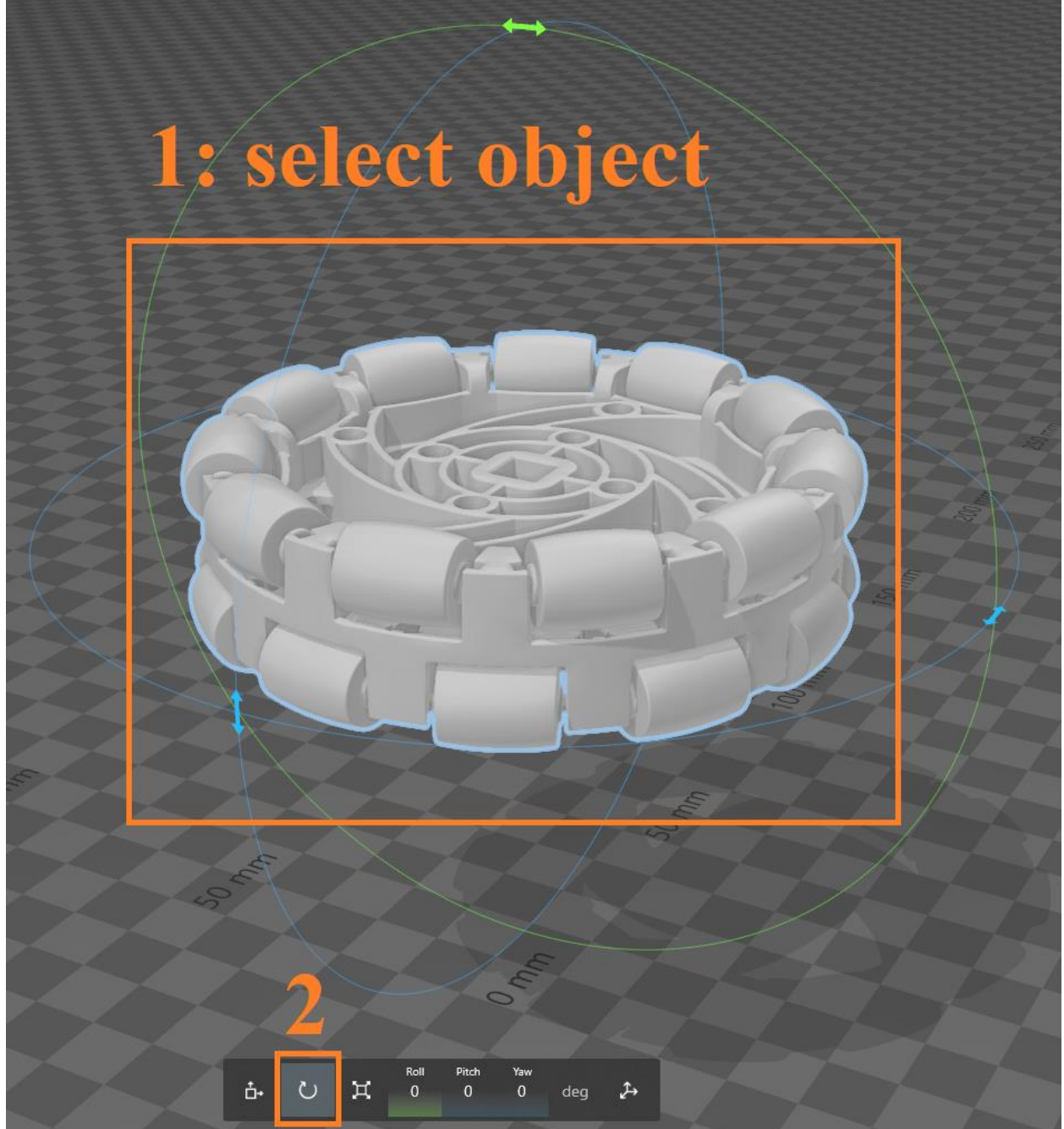
9. Delete key to delete object
10. CTR+0: set selected object as center of view and additional features





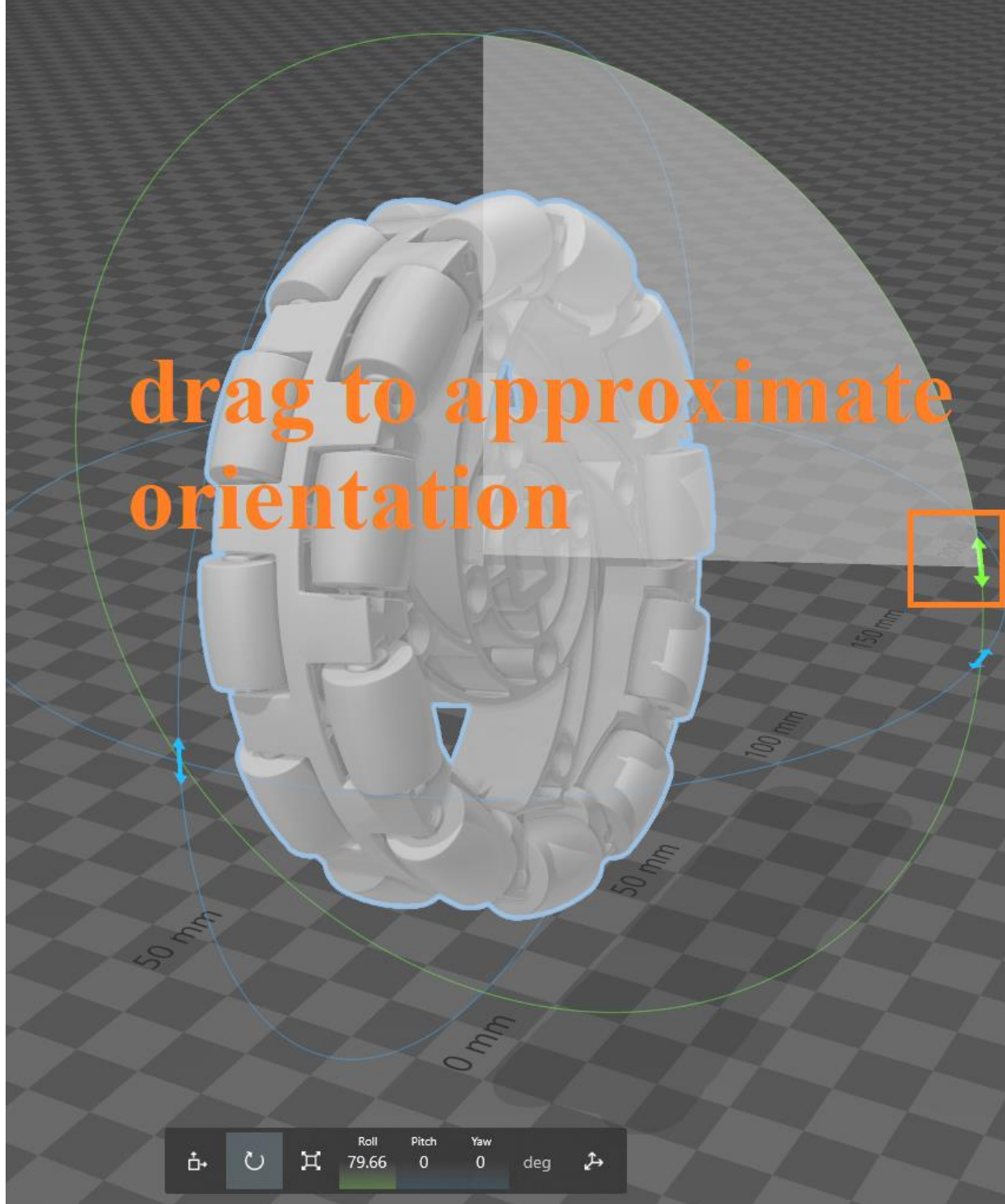
11: IMPORTANT rotate objects

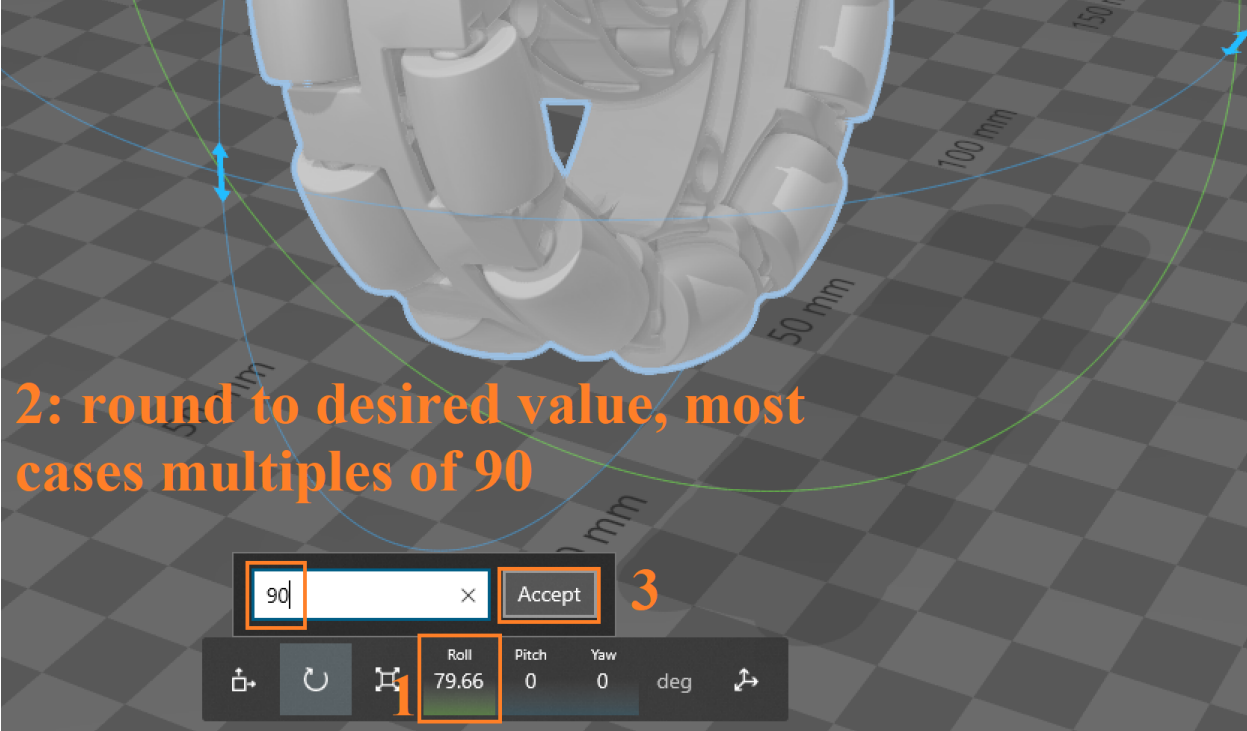
# 1: select object



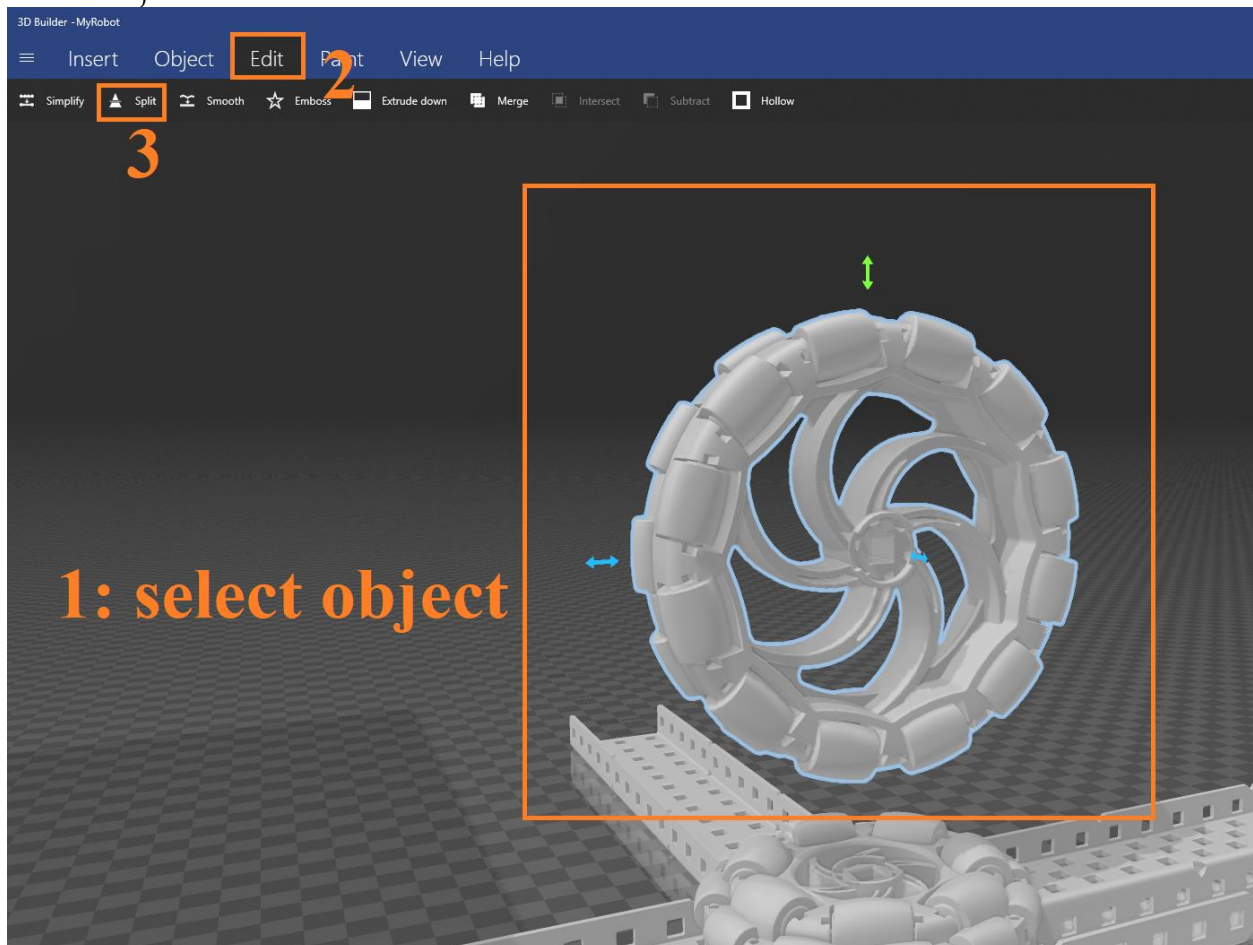


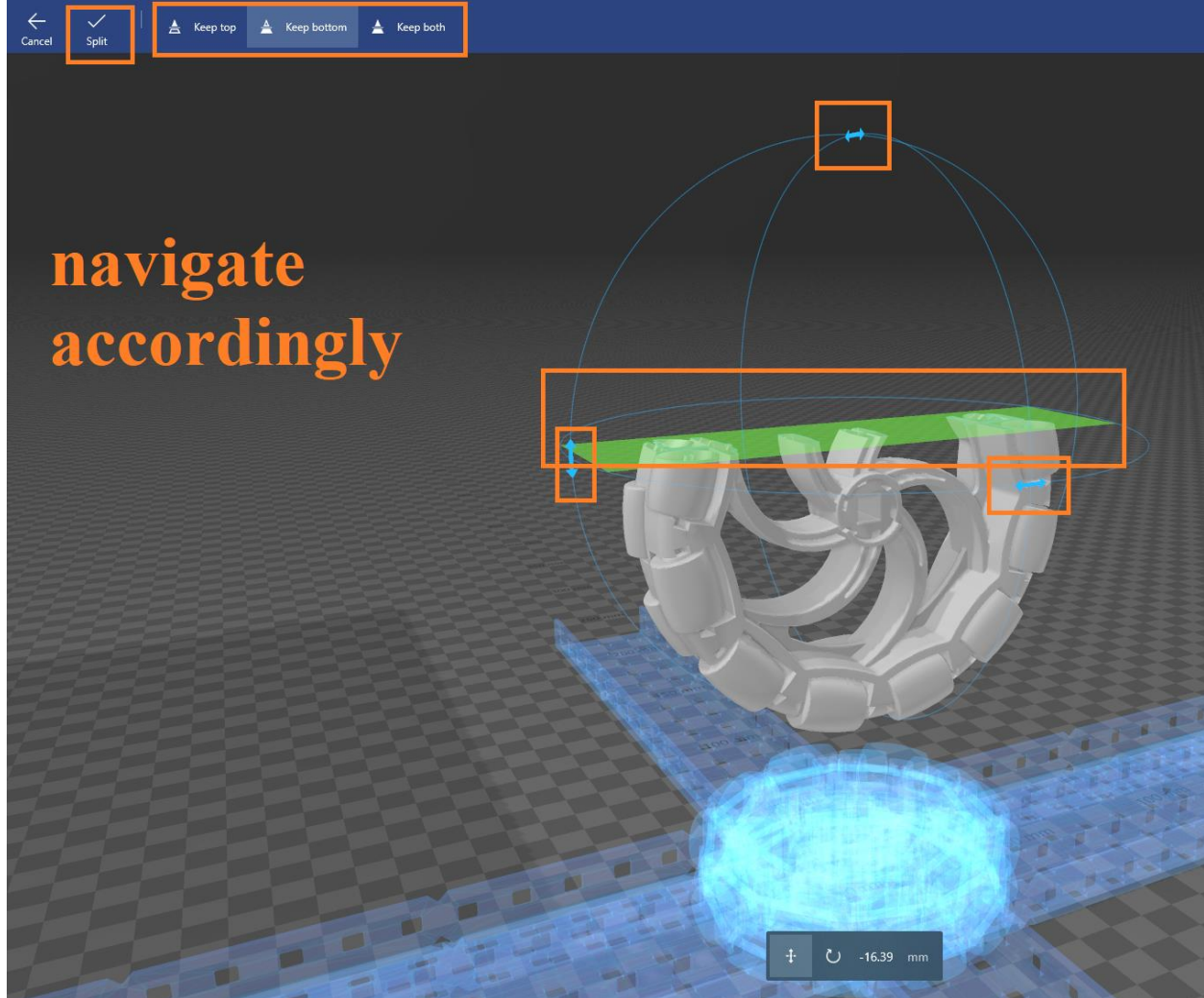
drag to approximate  
orientation



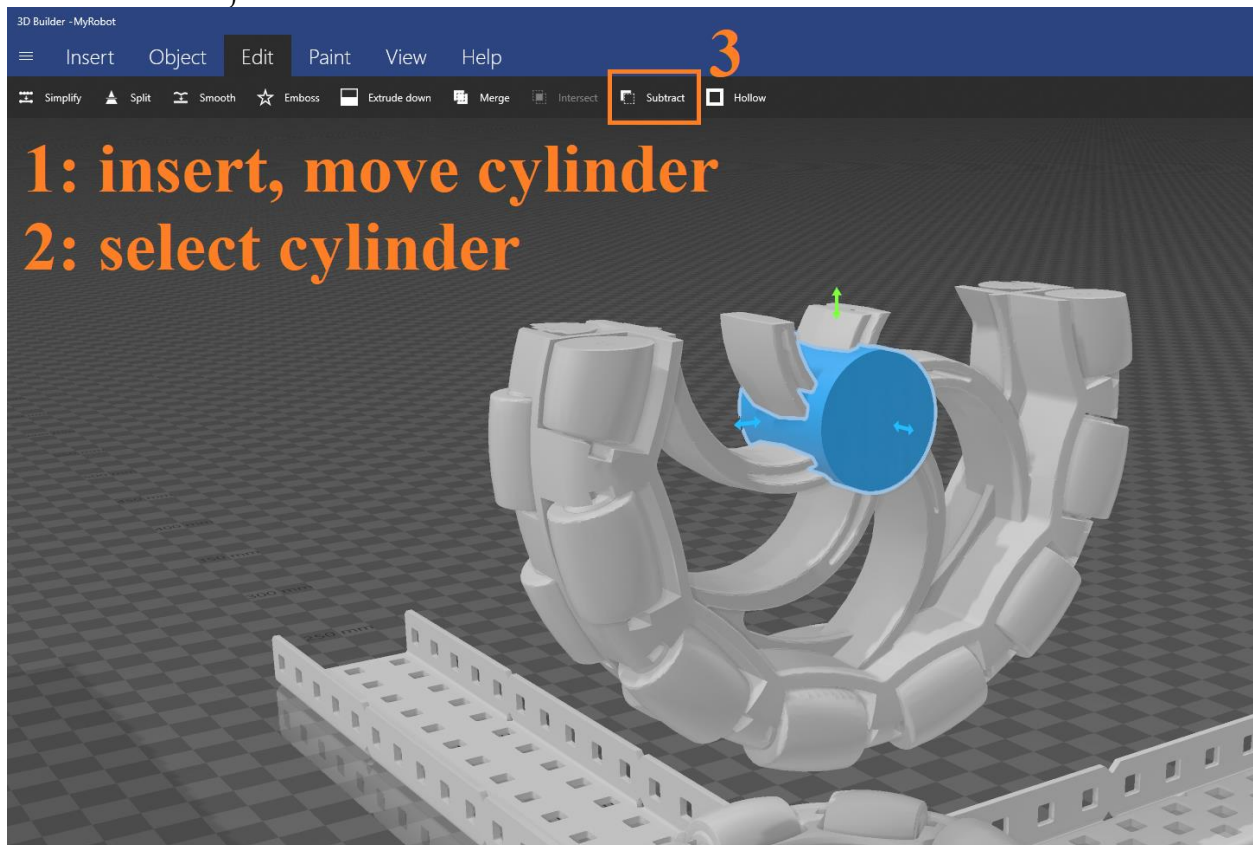


## 12: Cut objects



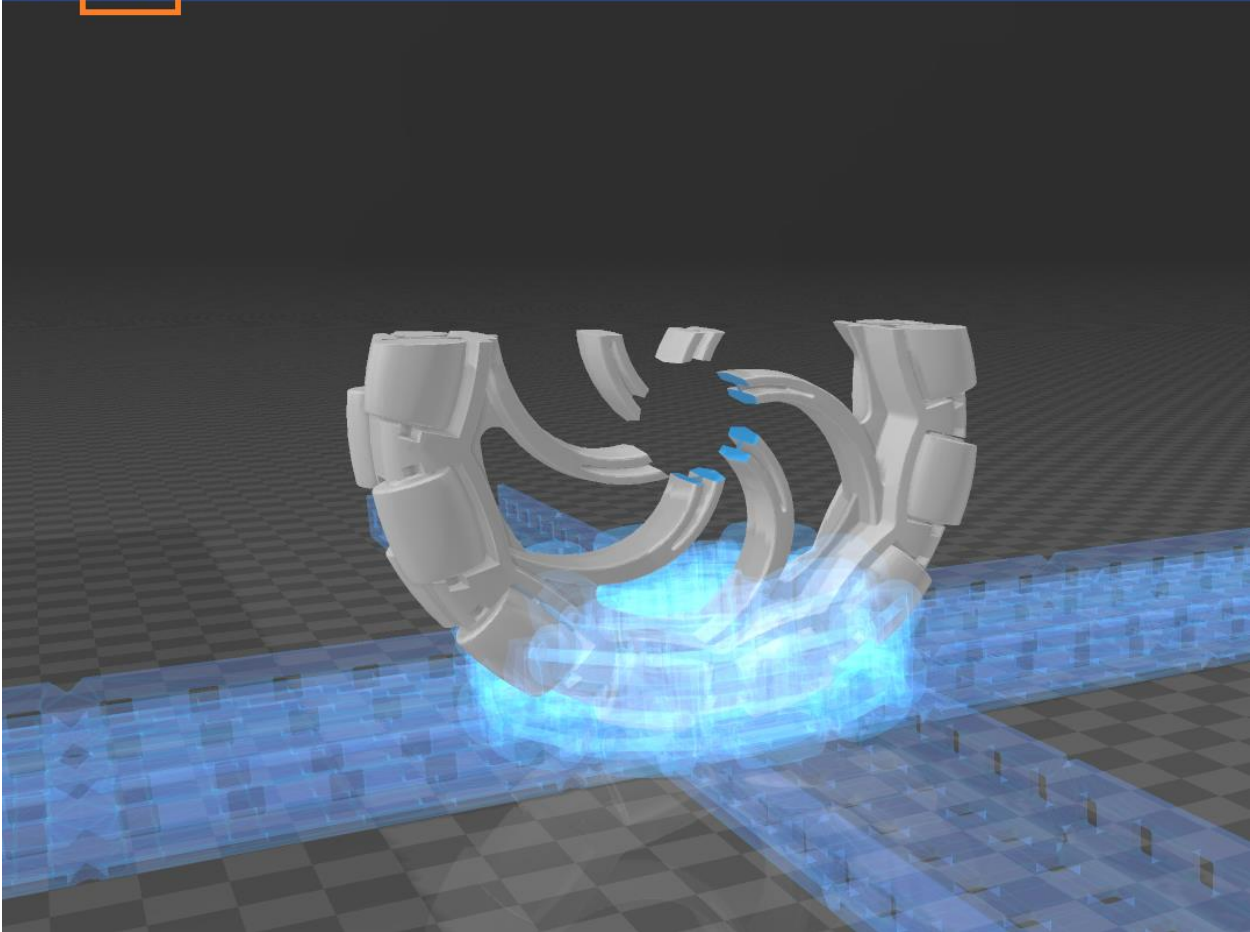


13: Cut hole in object

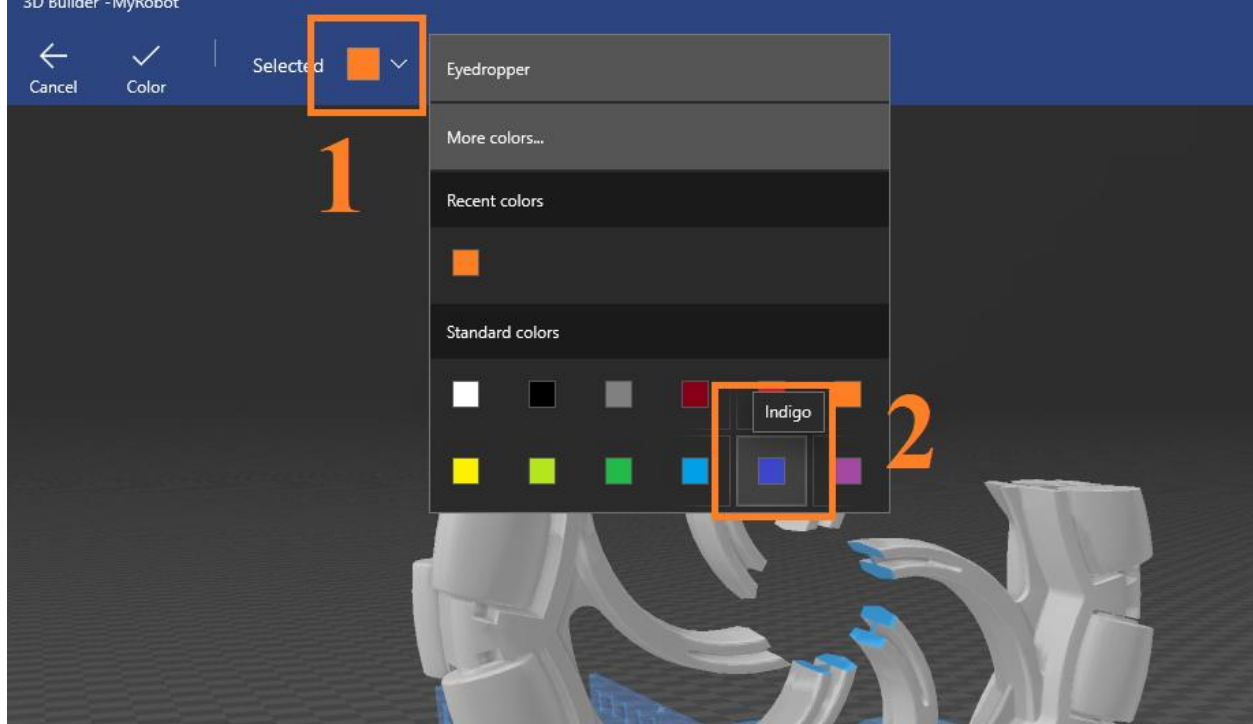
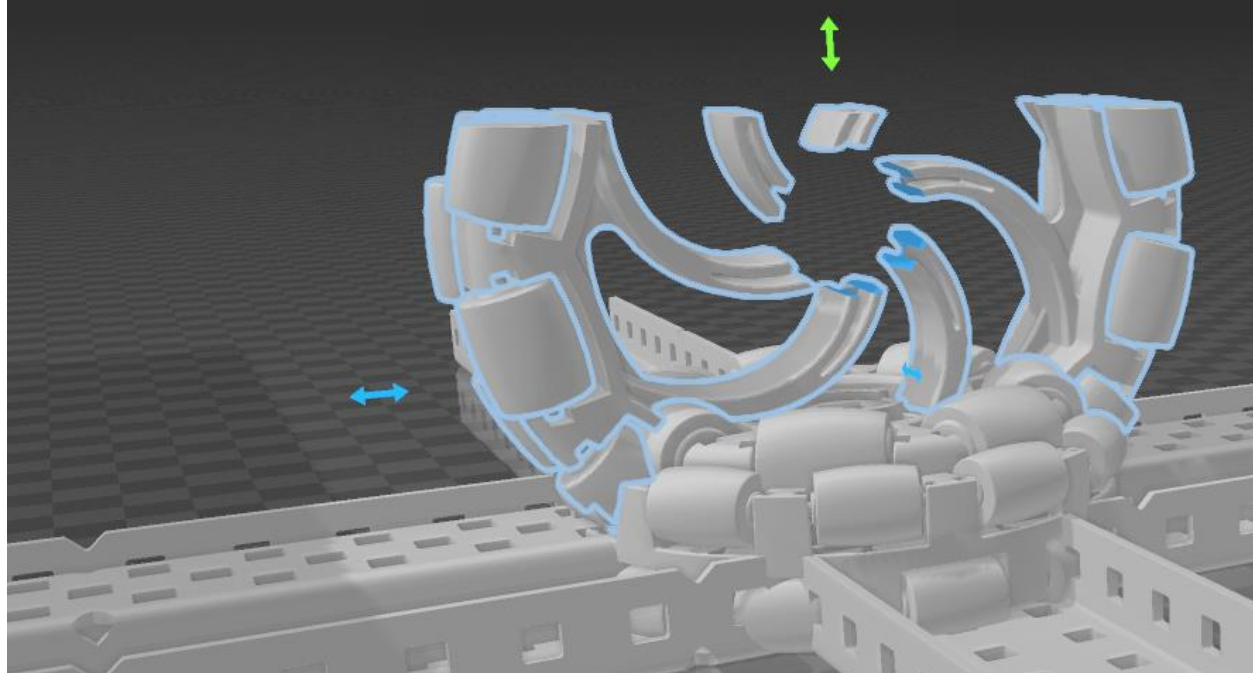


14: Drop object to ground





15: Paint object







Selected ■ ▾

Coverage

2

1: paint where  
desired

