3 Feet realistic R2D2 Homie - 3D printed

by **kavi_arasan** on December 31, 2016

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Intro: 3 Feet realistic R2D2 Homie - 3D printed

Hello all, This time i have created 3Feet starwars R2D2 Homie model, which is worth enough to make using 3D printer.**Use my CAD file into 3D printer to bring R2D2 Homie to your Home.**
we all love to have a crazy AI like R2D2,but this model is just a manual driven, and manual angled.This project extension can lead you to

- RC R2D2,
- Semi automated R2D2 .

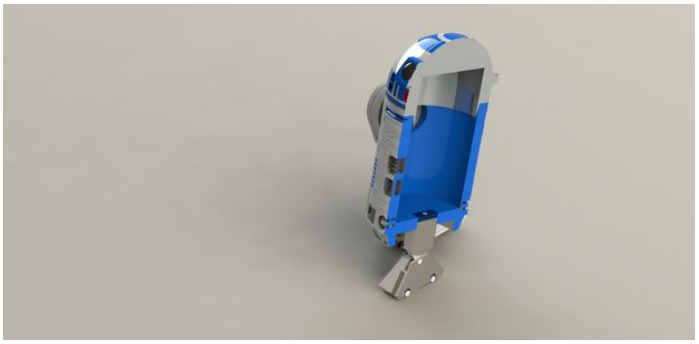
And I have made this instructable for **non technical peoples** , with an basic aim " **to make everyone understand and create one on their own**". Comments are really welcome to improve my steps of explanation.

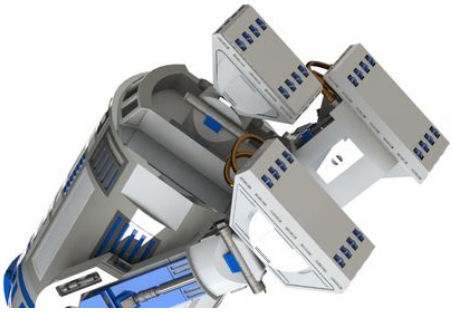
Step 1: Actual 3D look-alike model

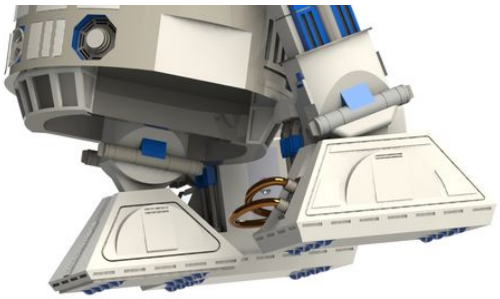
This pic is downloaded from online, which is a statue version.But my model is updated with new mechanism for various r2d2 positions, even stands straight with rotatable head.

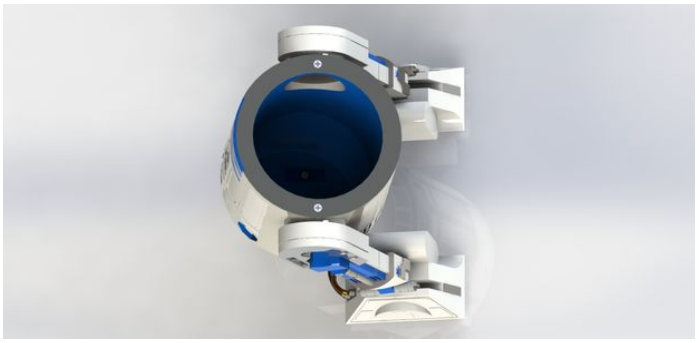
Step 2: Features

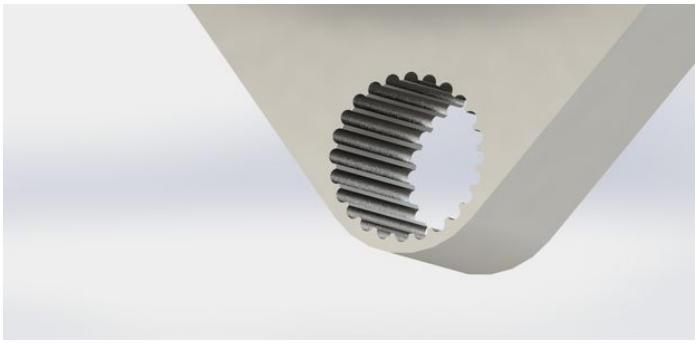
It has removable head - Which acts as cap for **storage unit,** and **head rotates 360 degrees.**
Wheel assembly - I have attached 8 wheels per ankle(24 wheels), at intermittent distance of 40mm each .
Multiple angle adjustment concept - This is my new slot design, you can see that the hole has semi circular cuts which is used to adjust angles of the leg and body using ankle slot .







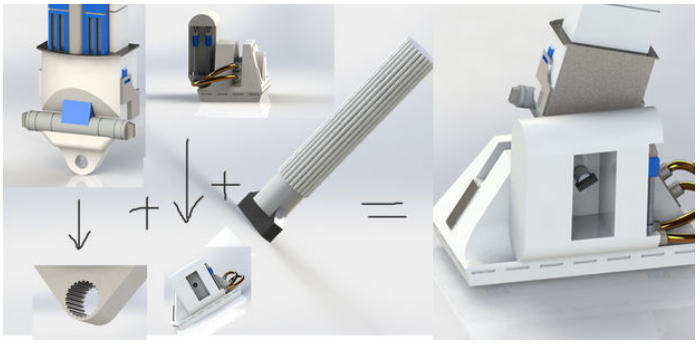


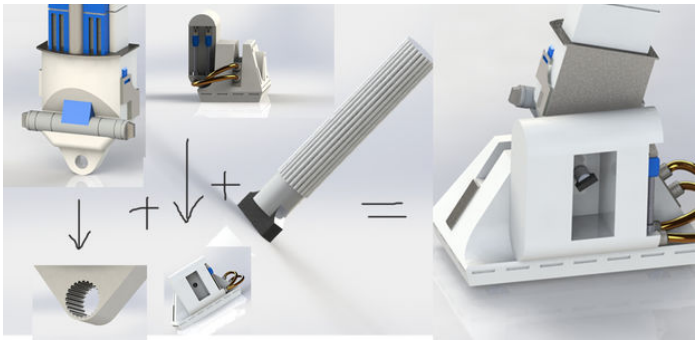


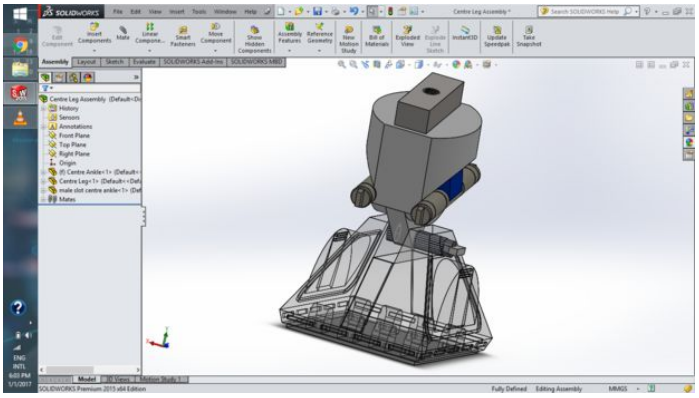
Step 3: Design dimensions & Assembly methodes of leg portion

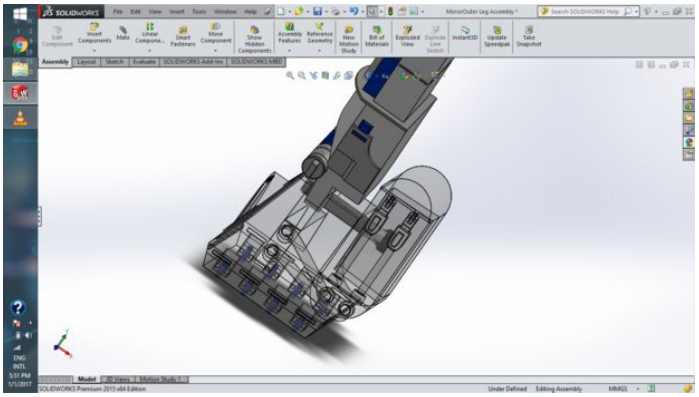
As I said earlier, this is how angles for the leg and body portion is adjusted based on our requirement.And from the above pic, you guys might get clear picture of the design preferences of the model,which i made.

Ankle slot dmns: 90mm length with 22mm dia , with circles of 2mm dia .(**Note** - the circular cuts helps to hold the assembly only to 50 %, Where as the space between adjacent circles with-holds rest 50%)









Step 4: Rest of the parts - basic dimensions(for non Cad designers)

Now anyone can use this dimensions to make the entire model in Thermo-cooler , wood, cardboard or any other materials.And i had provided all the basic dimensions,since everyone has to be benefited with my instructables.

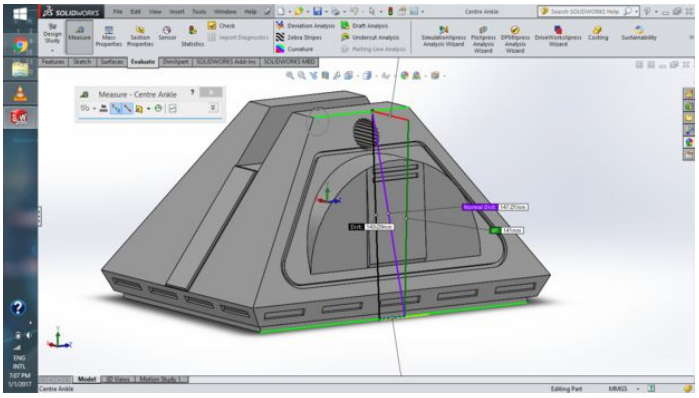
Ankle :(lower feet of R2D2)
Top width: 74 mm length 84mm - Base width: 180- 182mm length 260-264- Height 160mm (with wheels) (since it is tapper)

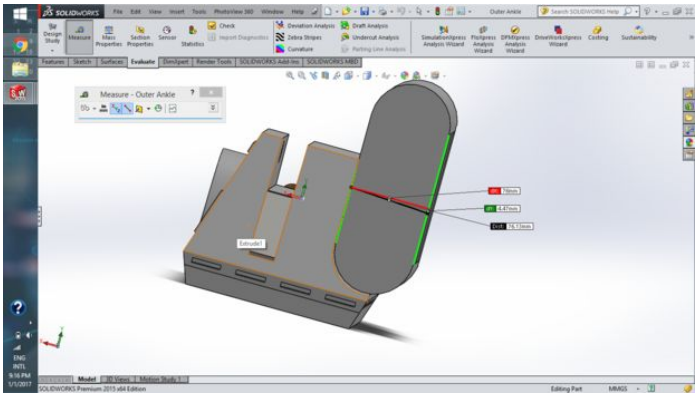
larger leg or arm :
height 650mm - top width 204mm -mid width 108mm -bottom tapper portion 47mm with 20mm radius of circle.(Note for larger leg ankle the rectangular extension width is76mm)

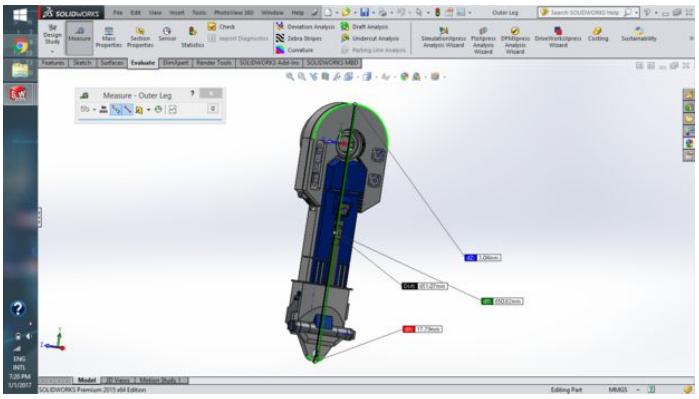
Body cylinder :
Height Outer 55cm ; Inner 45 cm. Outer dia 46.5cm ; Inner dia - 36 cm

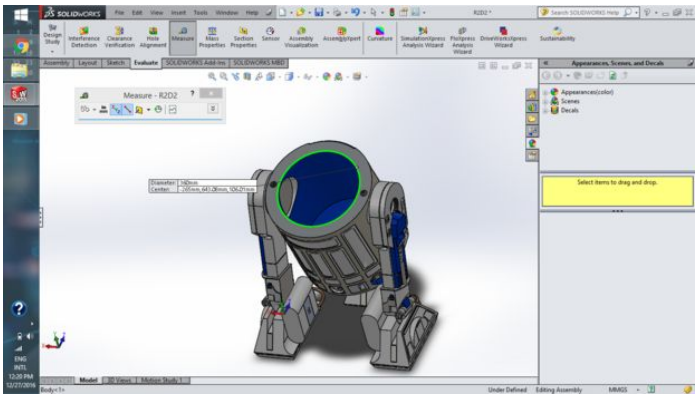
R2D2 **Head Height:** Height without rubber projections 28cm ; with condering inner rubber 34cm
outer dia55cm

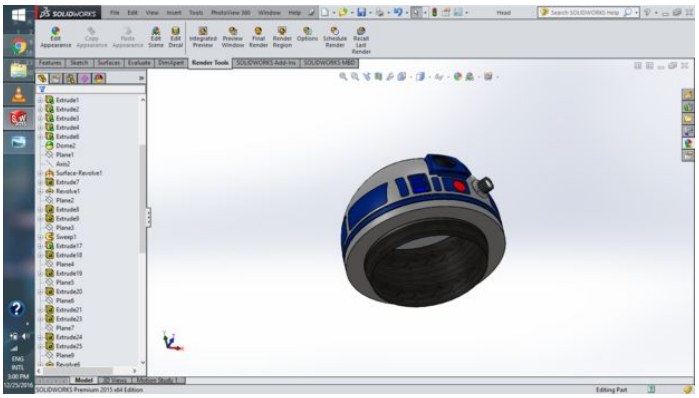
Centre leg Height: 195mm . (Tapper portion is similar to the larger leg dmns)

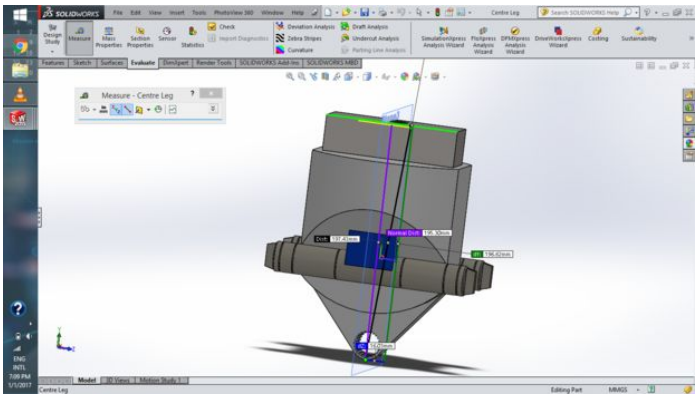








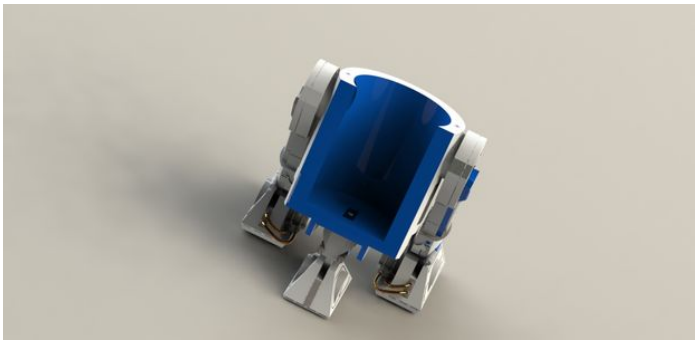


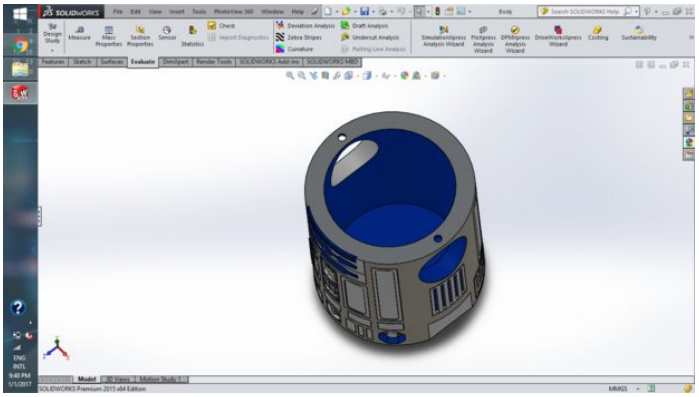


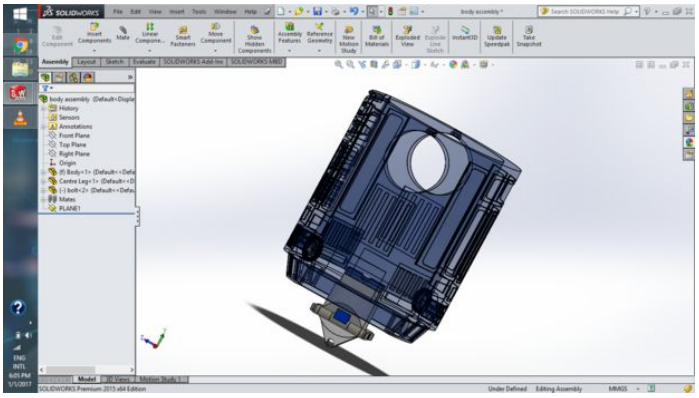
Step 5: Assembly of Body and legs

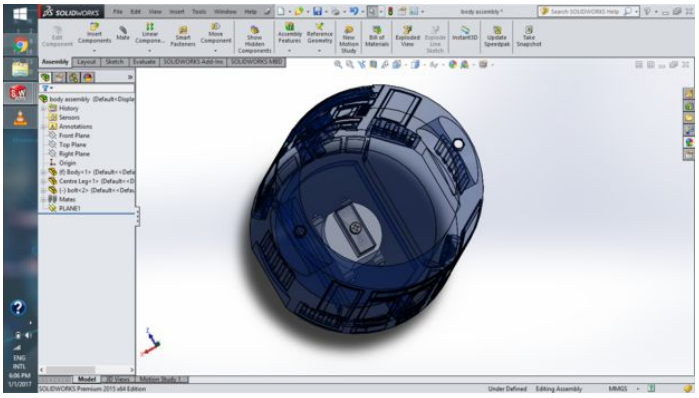
Three Bolts are needed to assemble the components to the body,

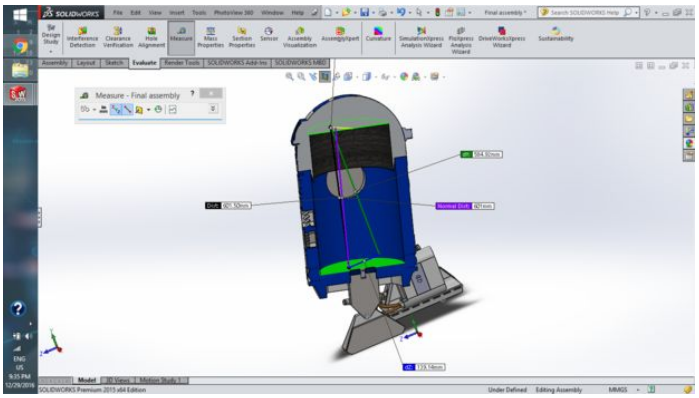
Assembly is made as follows each bolt per assembly.
Central Body with Center leg assembly
Central body with Right leg
Central body with Left leg





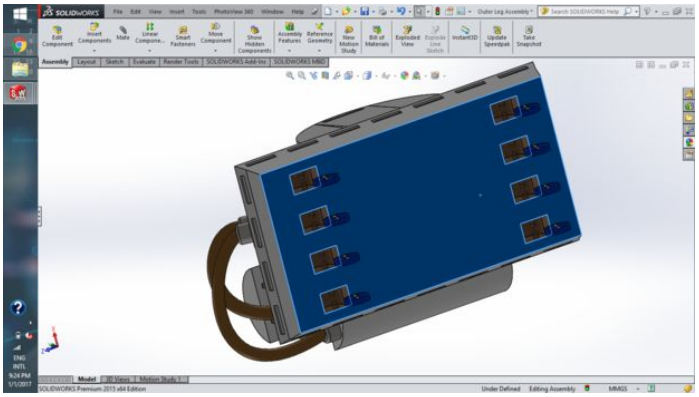






Step 6: Wheel attachments

From the above pic , you guys can actually see small cylindrical projections, which acts as that shaft for Wheel axes.
Note - "wheels can be of any desired diameter from x mm to x mm and guys feel free to change according to your imagination"



Step 7: Cad files

Download this Zip file.
And extract to your system,
copy it to your pen-drive.

Go for 3D printing shop and bring a brand new R2D2 homie to your home.
I hope this might be useful enough.

If you're not able to download, then mail me ;kaviarasan619@gmail.com

My hearty thanks for reading with patience,
kaviyarasan

File Downloads

R2D2.zip (18 MB)
[NOTE: When saving, if you see .tmp as the file ext, rename it to 'R2D2.zip']

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