

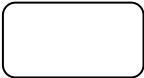
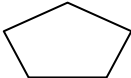

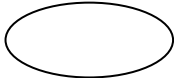


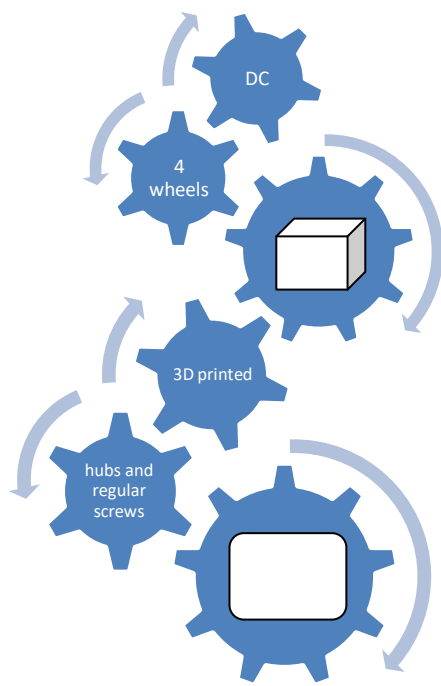
MORPHOLOGICAL DESIGN FOR THE BASE OF THE ROBOTIC ARM

DONE BY: SHATHA ALFAYEZ

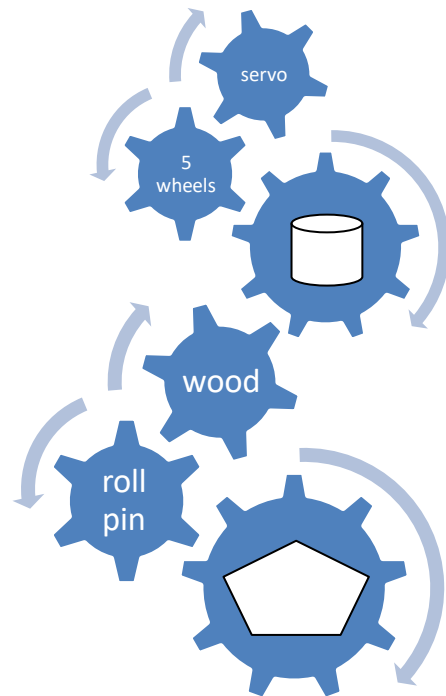
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The morphological charts below shows the initial design ideas of the base of the robotic arm.

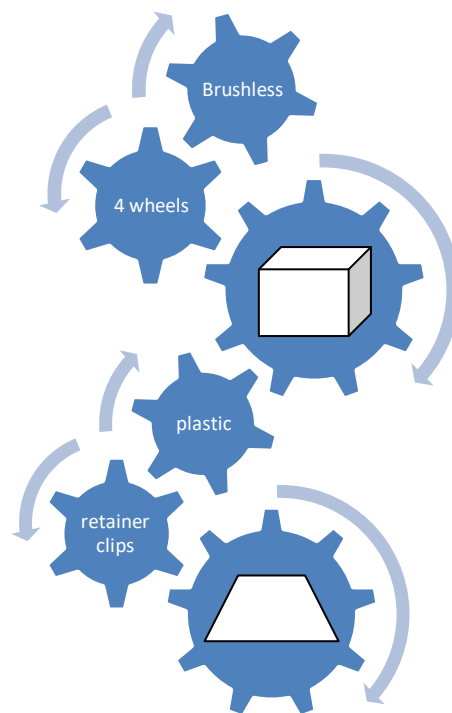
motor	DC	stepper	servo	Brushless
no. of wheels	2	3	4	5
electric box shape				
material	wood	plastic	3D printed	aluminum
connect to wheels	hubs and regular screws	roll pin	retainer clips	metal casters
base shape				



[Morphological Chart.01]



[Morphological Chart.02]



[Morphological Chart.03 – best fit]

I chose Morphological chart.03 due to many reasons. First, the brushless motor provides higher efficiency and performance. Second, The lightweight of plastic material allows for quick and easy installation and this will add up more speed to the robot. Finally, taking into consideration the centre of gravity, this base shape design is the best to prevent robot failure.