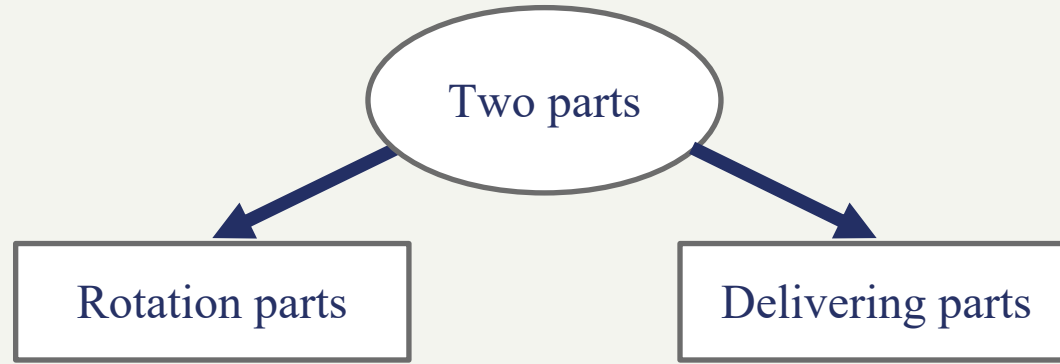


# Part 2

## Design concept & Engineering analysis



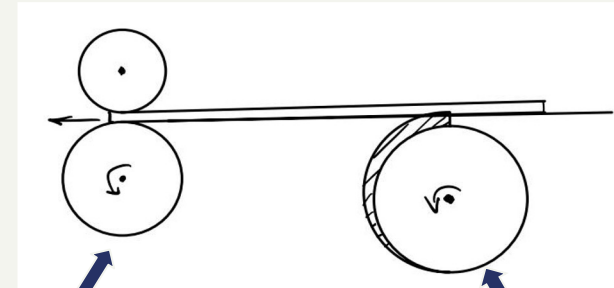
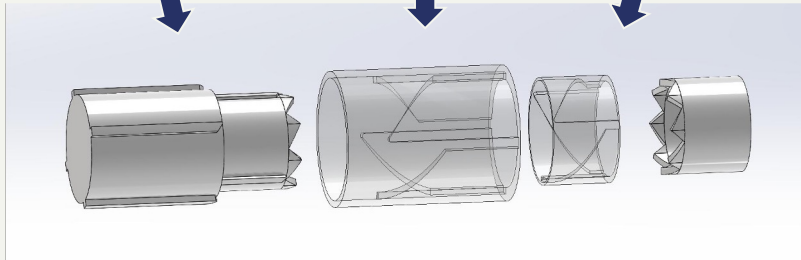
# Design concept



Rotate  $90^\circ / 120^\circ$  each turn  
(Rotating Design)

Outer  
shell

Choose either 3 or 4 players  
(Chooser)

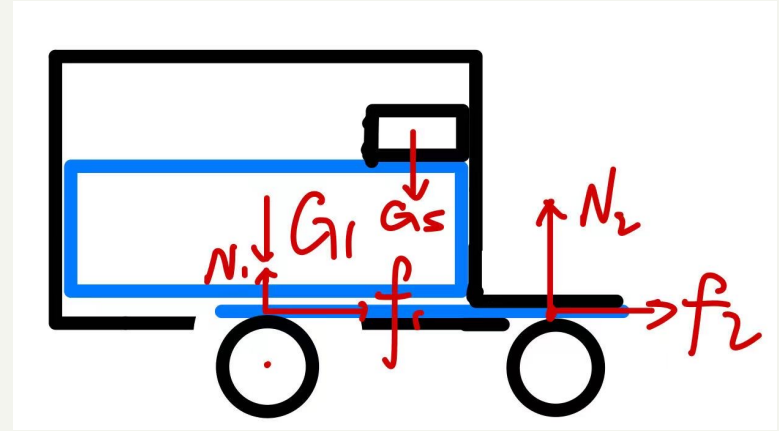
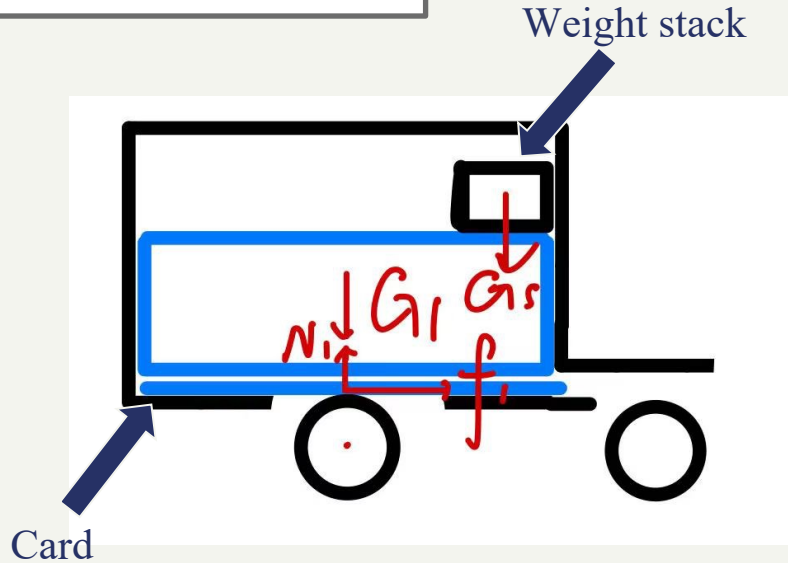


Deliver cards

Give card an initial speed

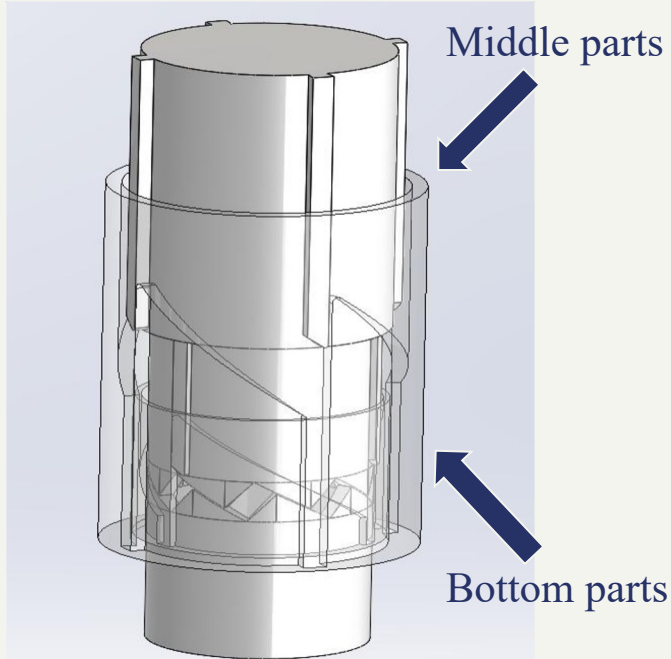
# Design concept explanation & Force analysis

Delivering parts

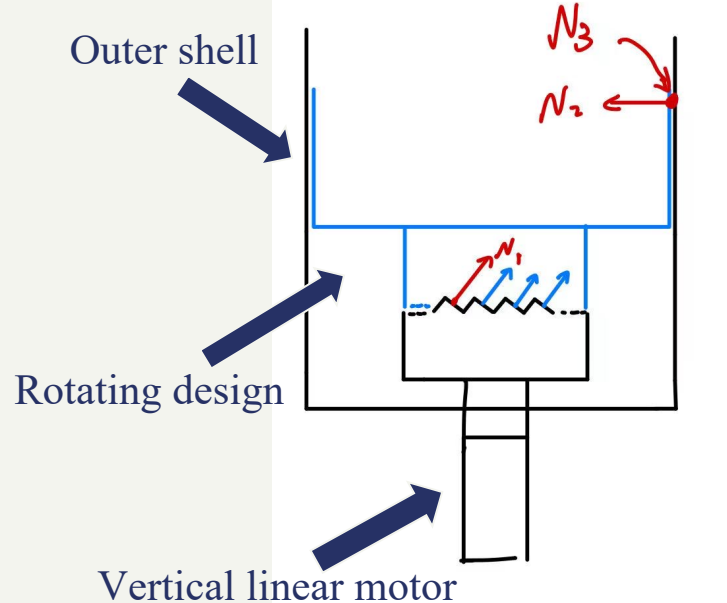


# Design concept explanation & Force analysis

Rotation parts



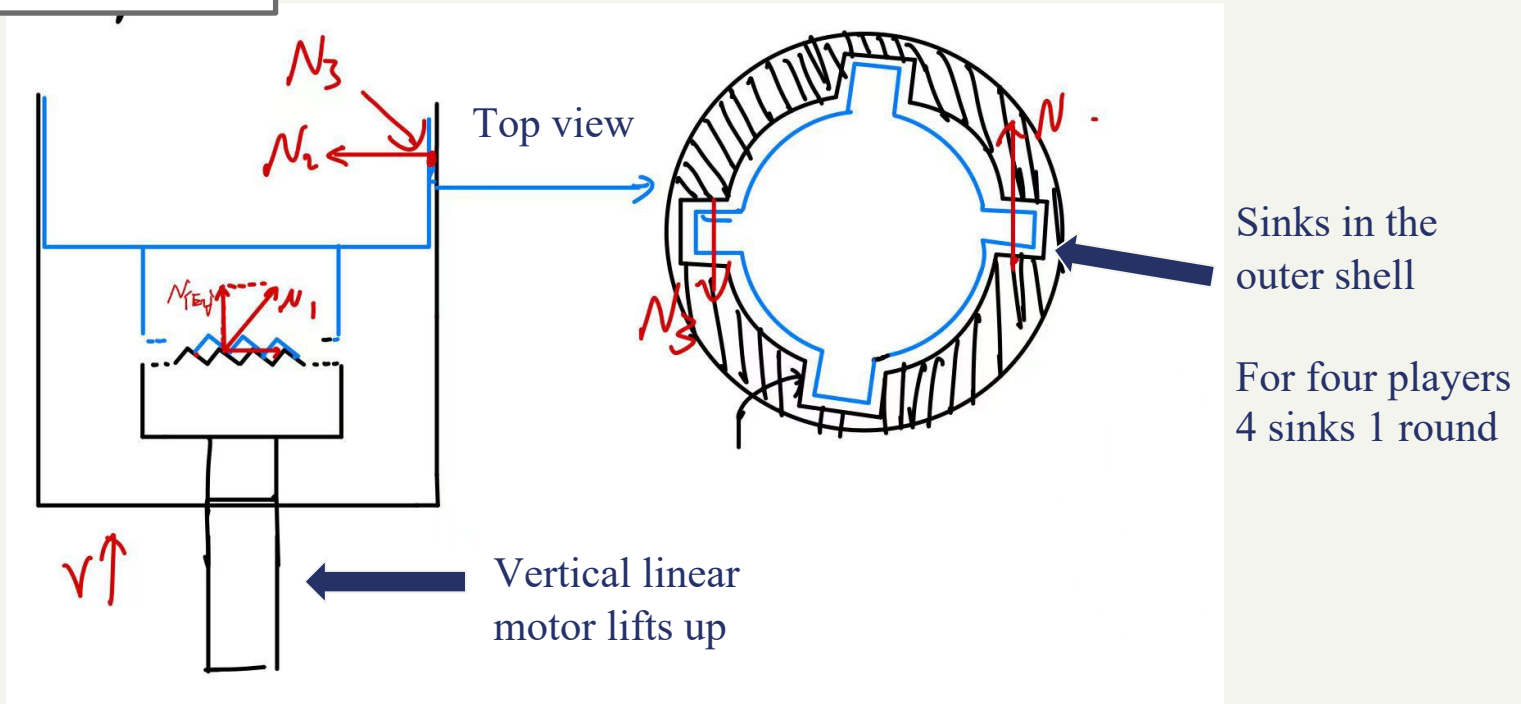
Bottom parts  
(During delivering)



# Design concept explanation & Force analysis

Rotation parts

Bottom parts (During Lifting)

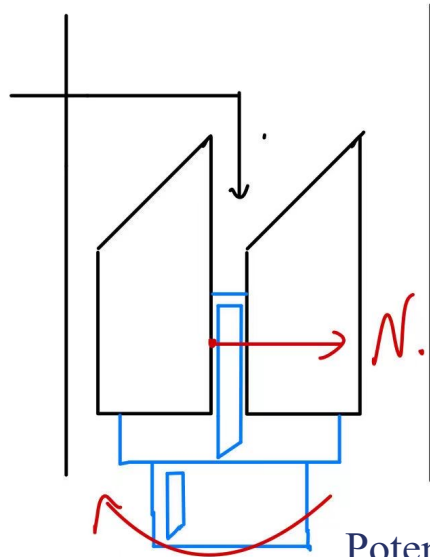


# Design concept explanation & Force analysis

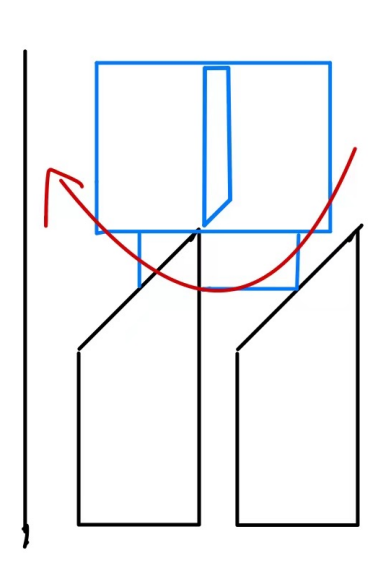
Rotation parts

Middle parts (During Lifting)

The inside  
composition  
of the shell



Lifting to the top



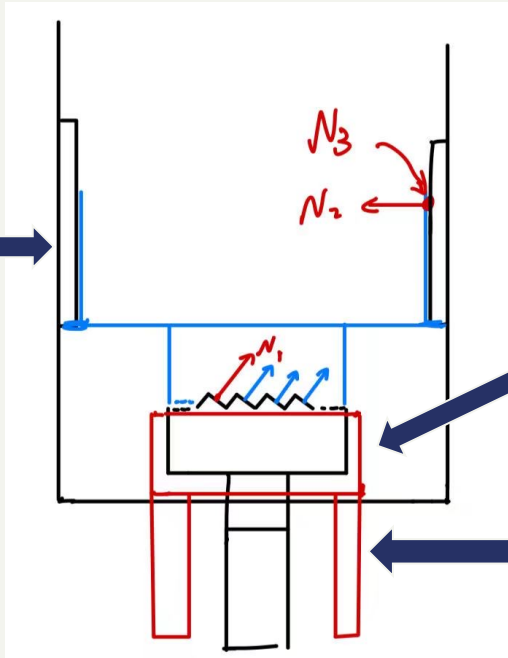
Rotating to  
another sink

# Design concept explanation & Force analysis

Rotation parts

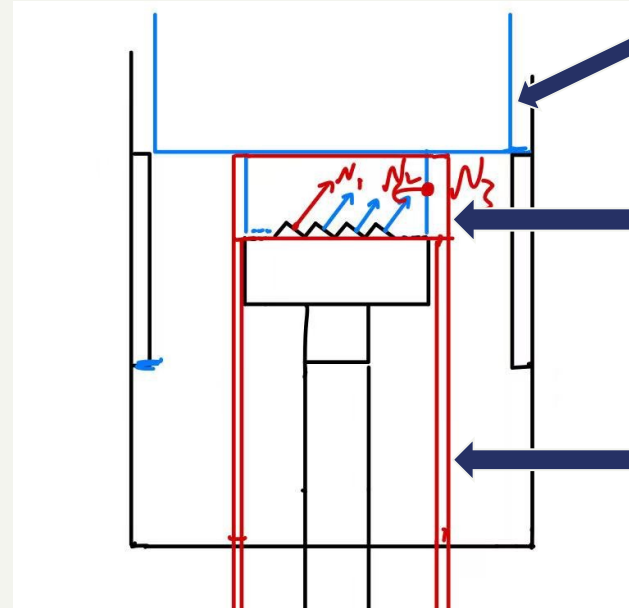
Middle parts (During Lifting)

Visualized  
Sink of the  
shell



Chooser

2 supporters  
controlled by  
Arduino



Get out of  
sinks in the  
outer shell

Similar sinks  
but 3 sinks a  
round  
(for 3 players)

Supporters  
Lifted up