

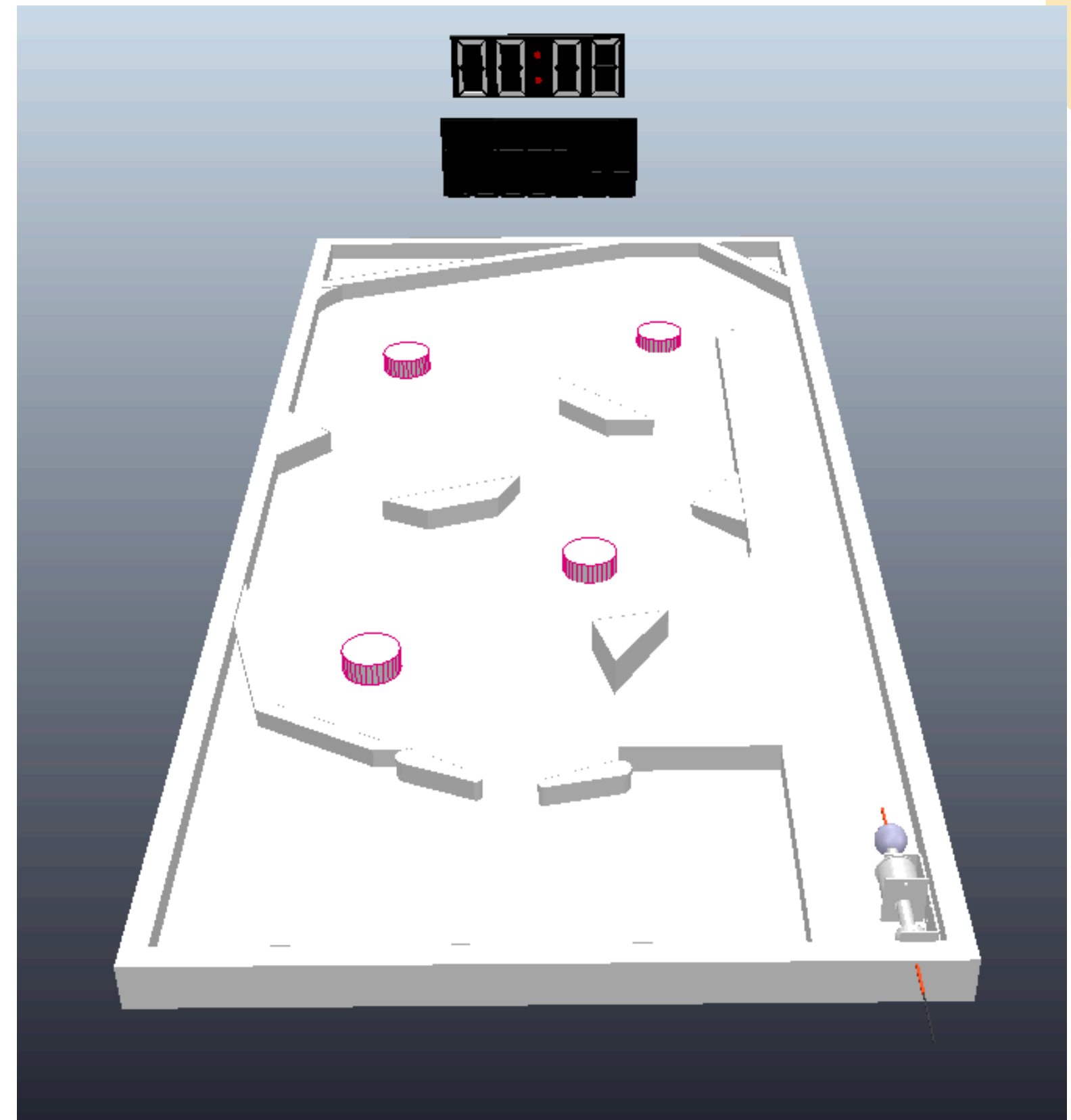
Cad2024

# 電腦輔助設計與實習 彈珠台

組長:41223228洪英毓

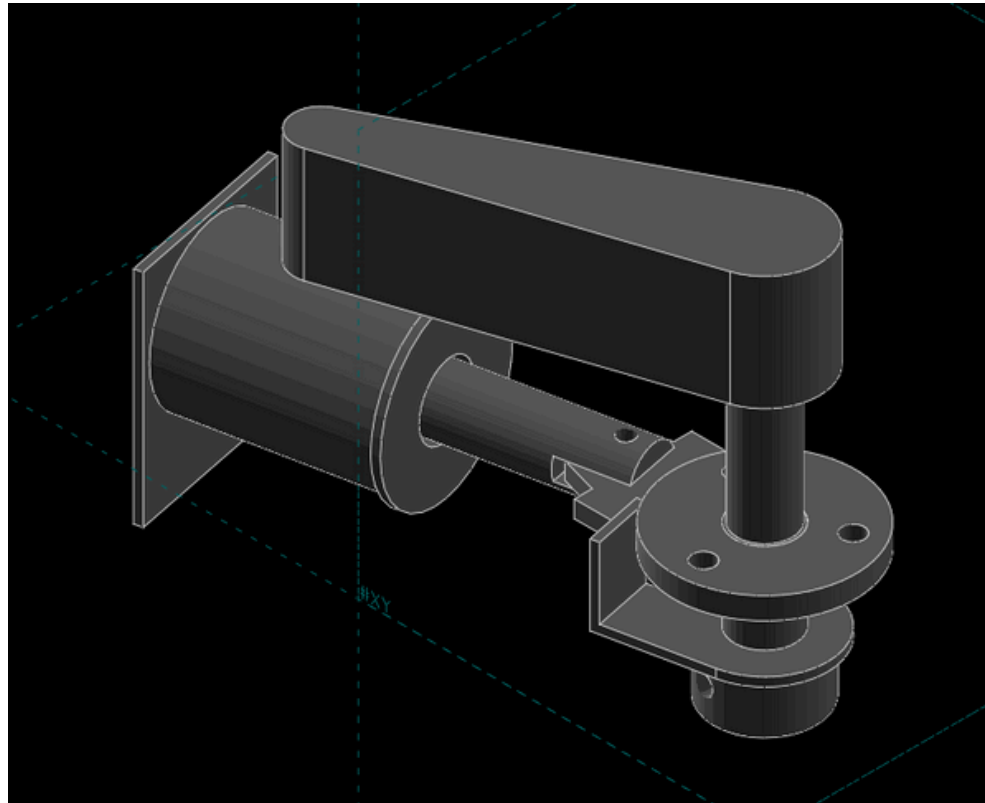
組員:41223227施宗廷

41223206陳顥亘

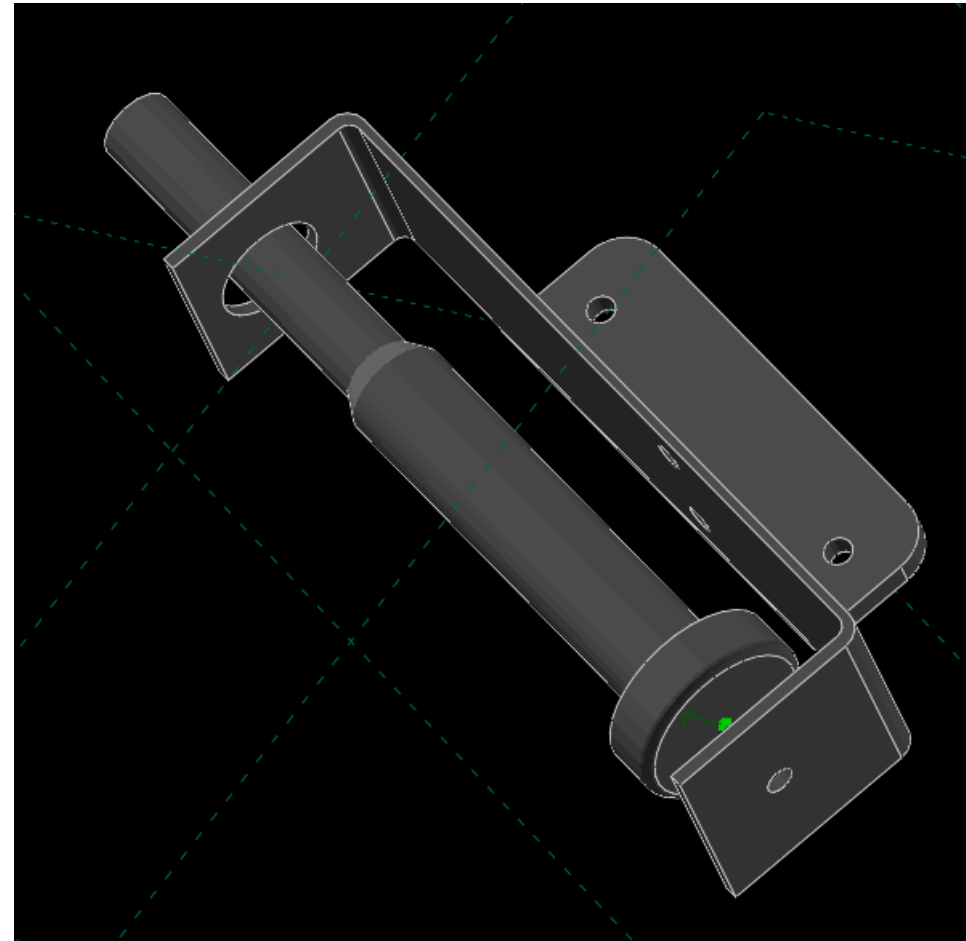


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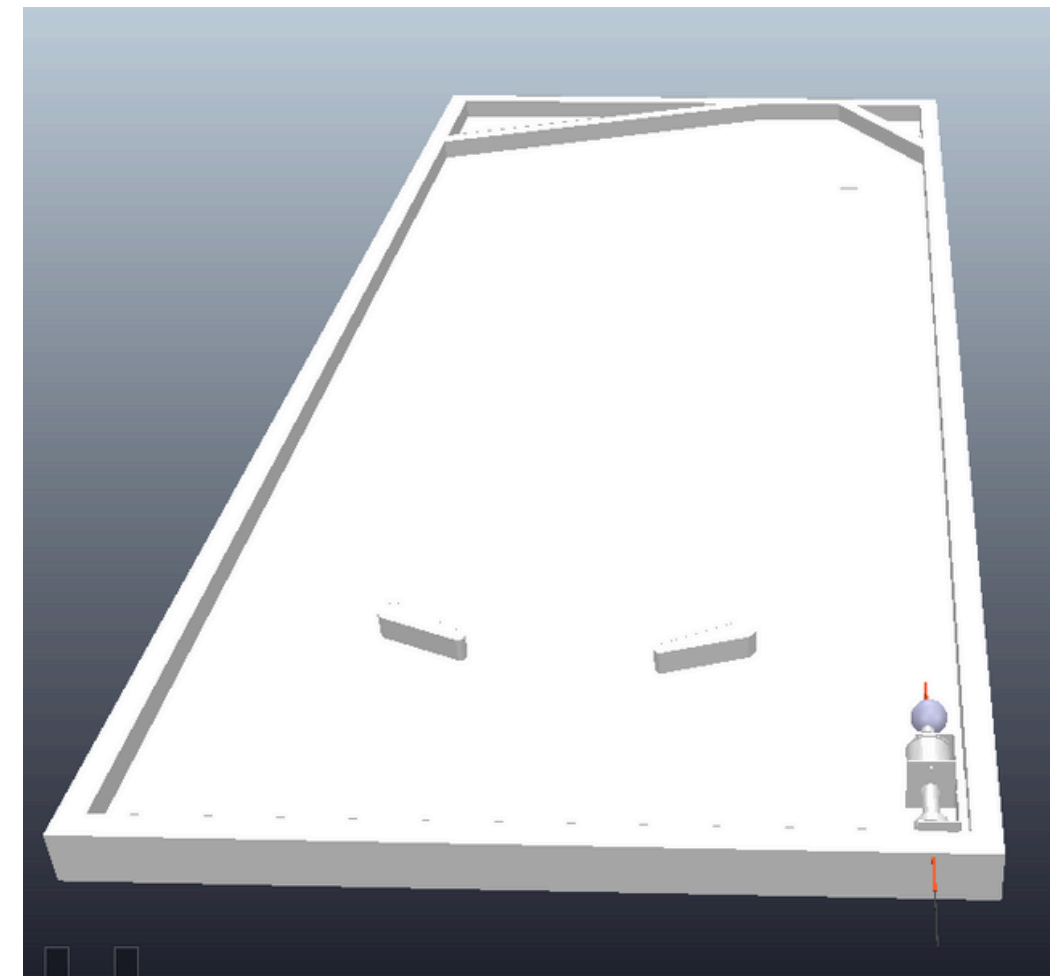
1.撥桿



2.推進器



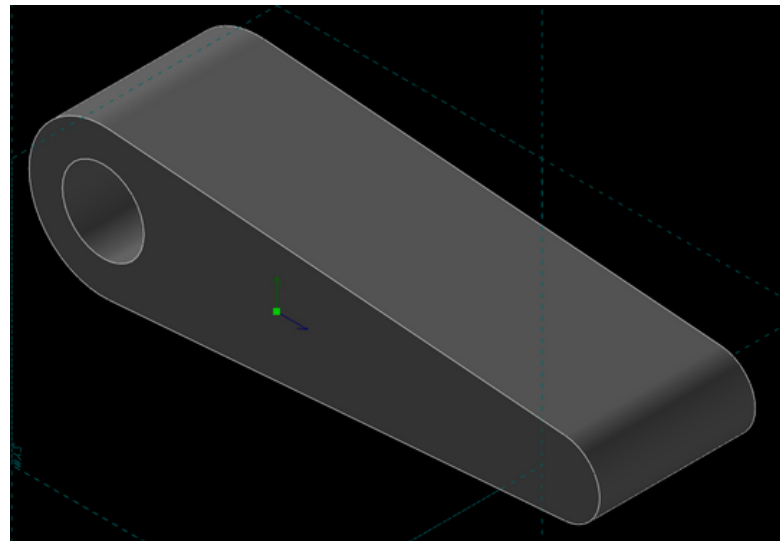
3.彈珠台



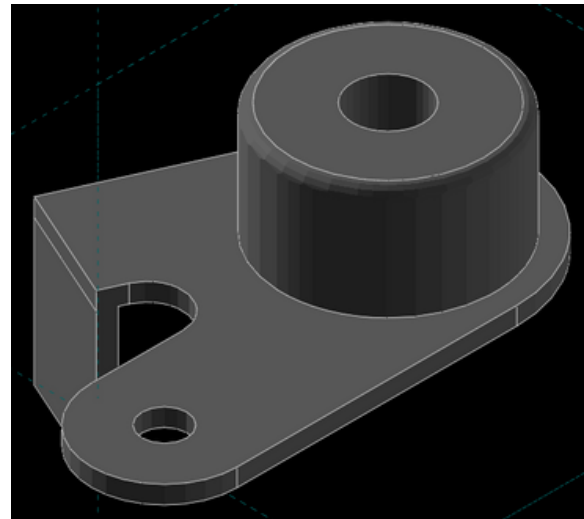
# 工作分配

# 41223206\_陳顥亘 負責用solvespace繪製+STL

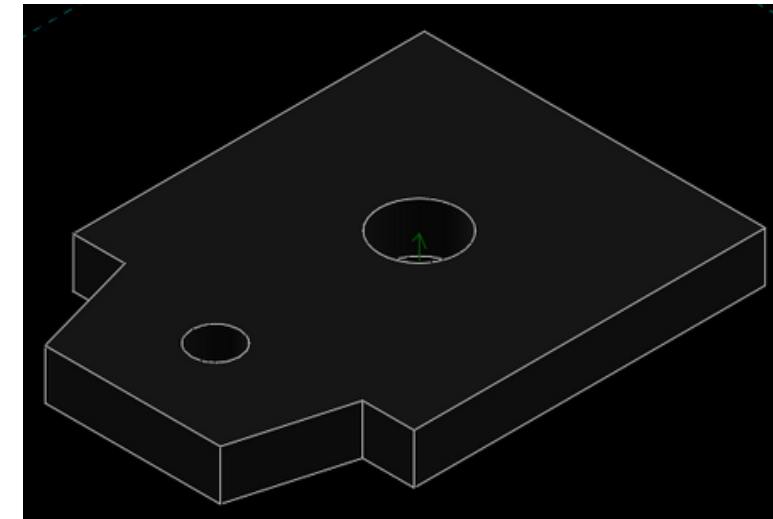
flipper



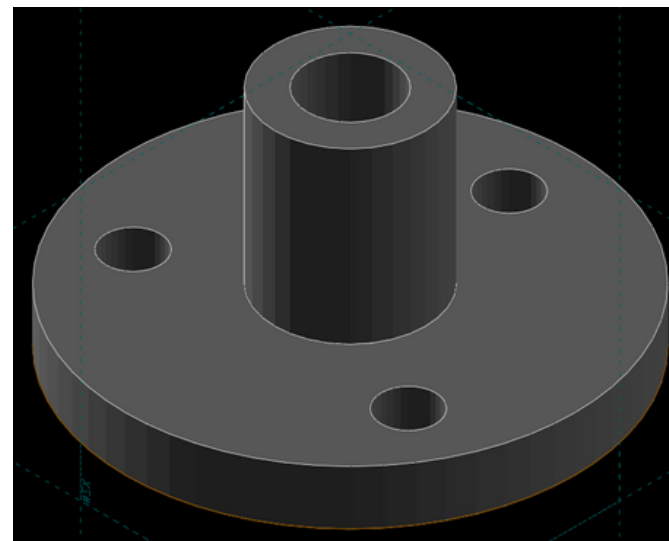
left\_metal\_piece



piece\_composite



plastic\_flipper



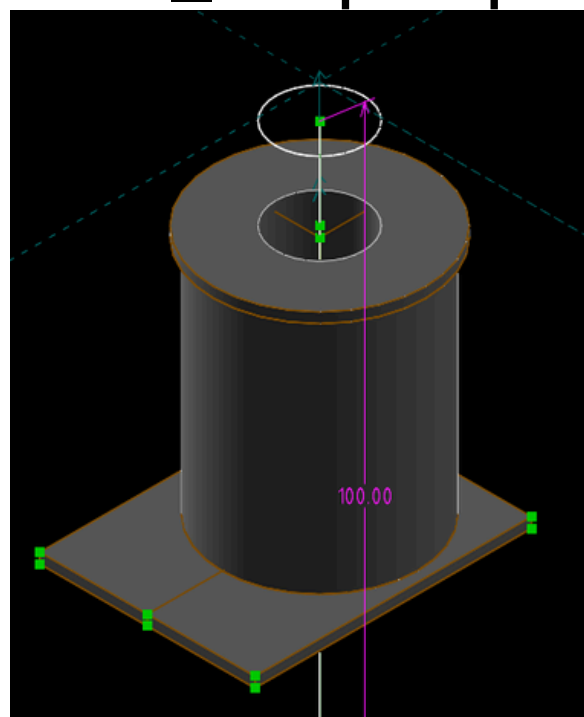
slider



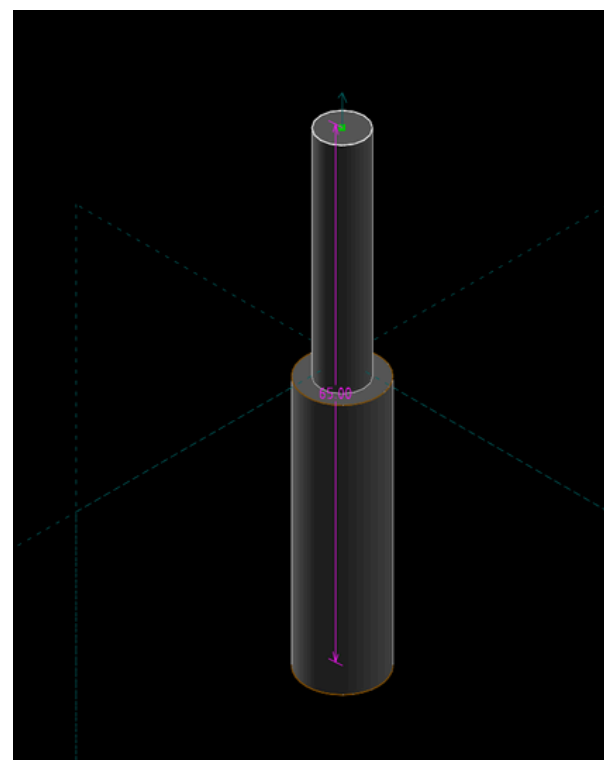
# 41223228\_洪英毓 負責用solvespace+NX繪製

Plongeur

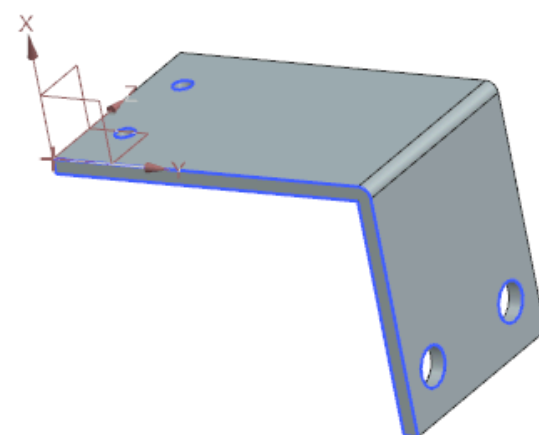
Batteur\_sldprt.prt



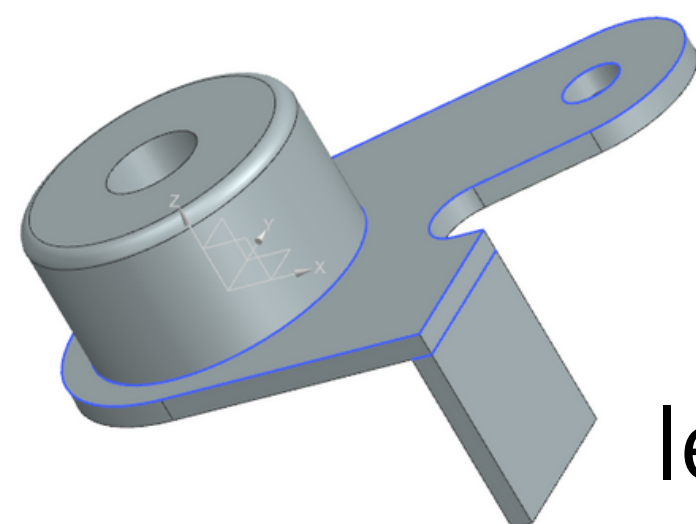
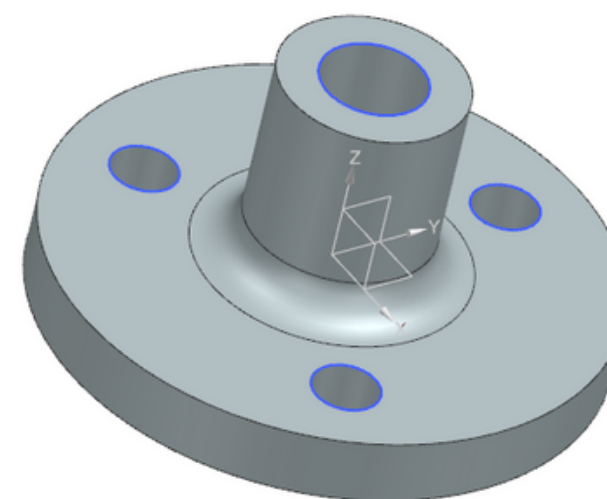
Flipper



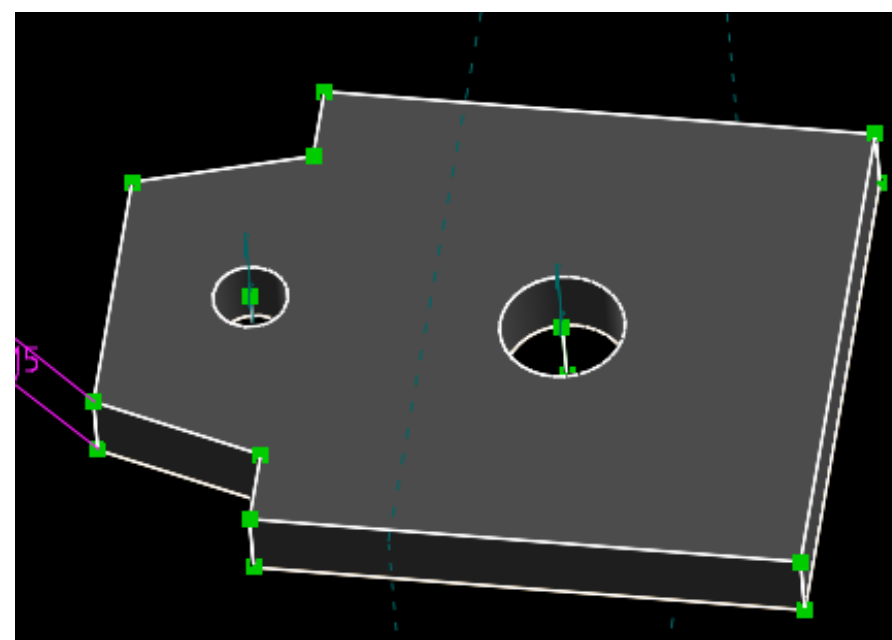
Bobine Batteur\_sldprt



plastic\_flipper



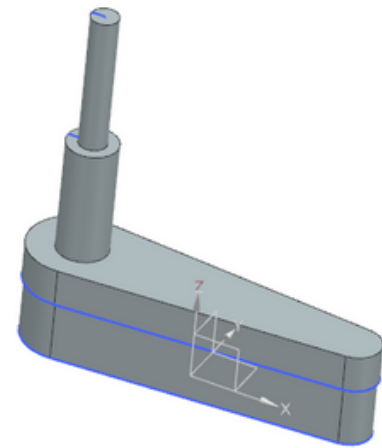
left\_metal\_piece



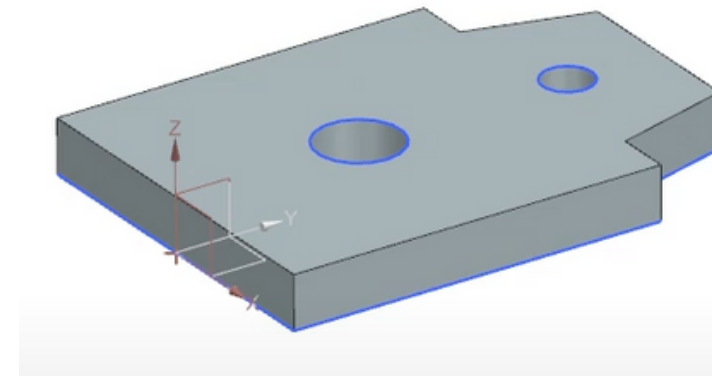
Piece composite

41223227\_施宗廷 負責用NX繪製

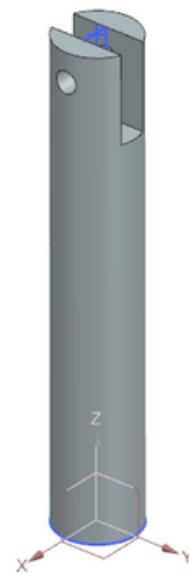
Flipper



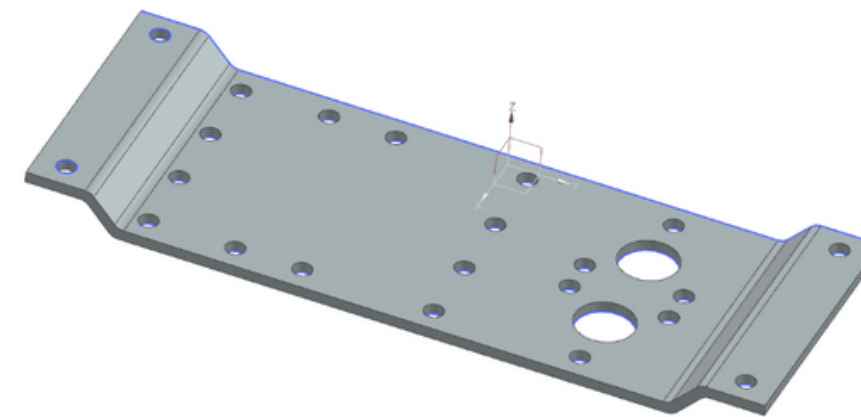
Piece composite



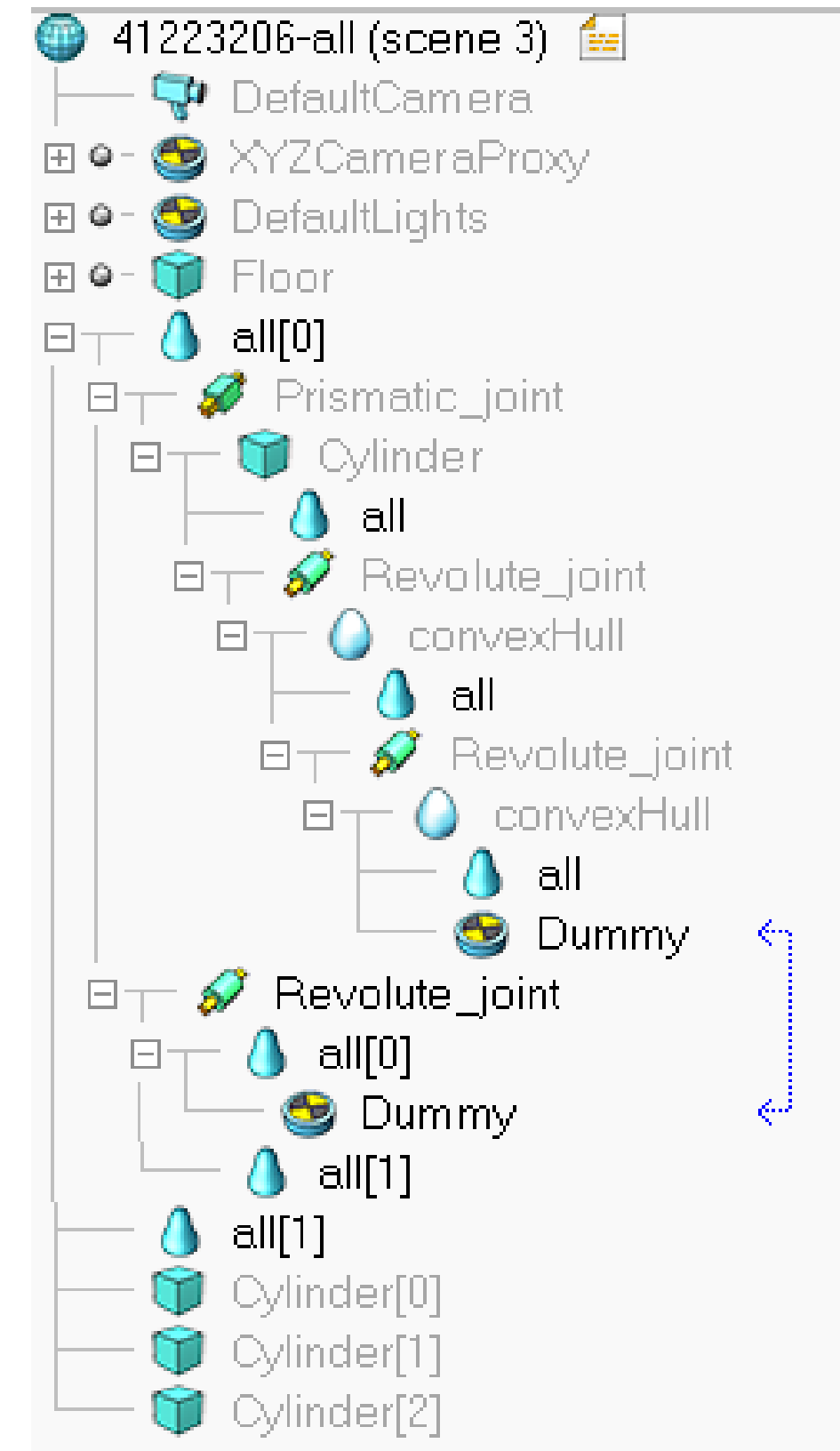
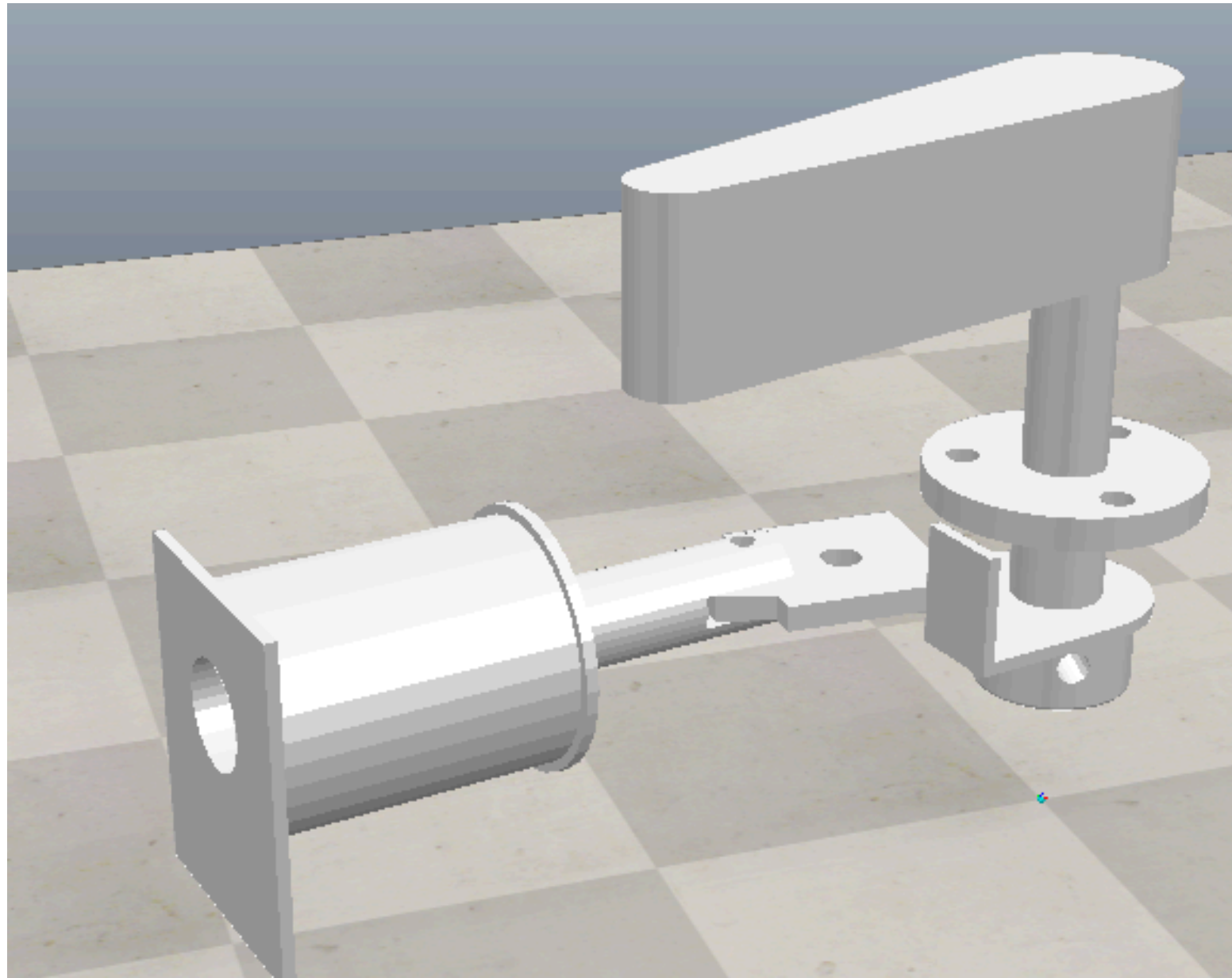
Plongeur Batteur



Platine Batteur



# 撥桿:程式



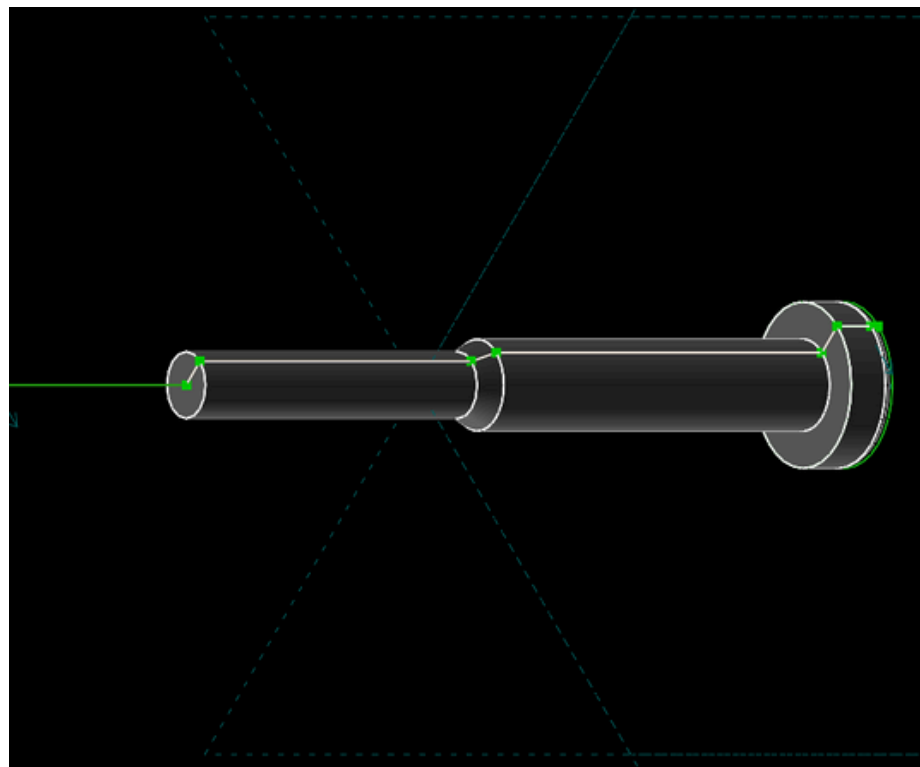


[illegible]

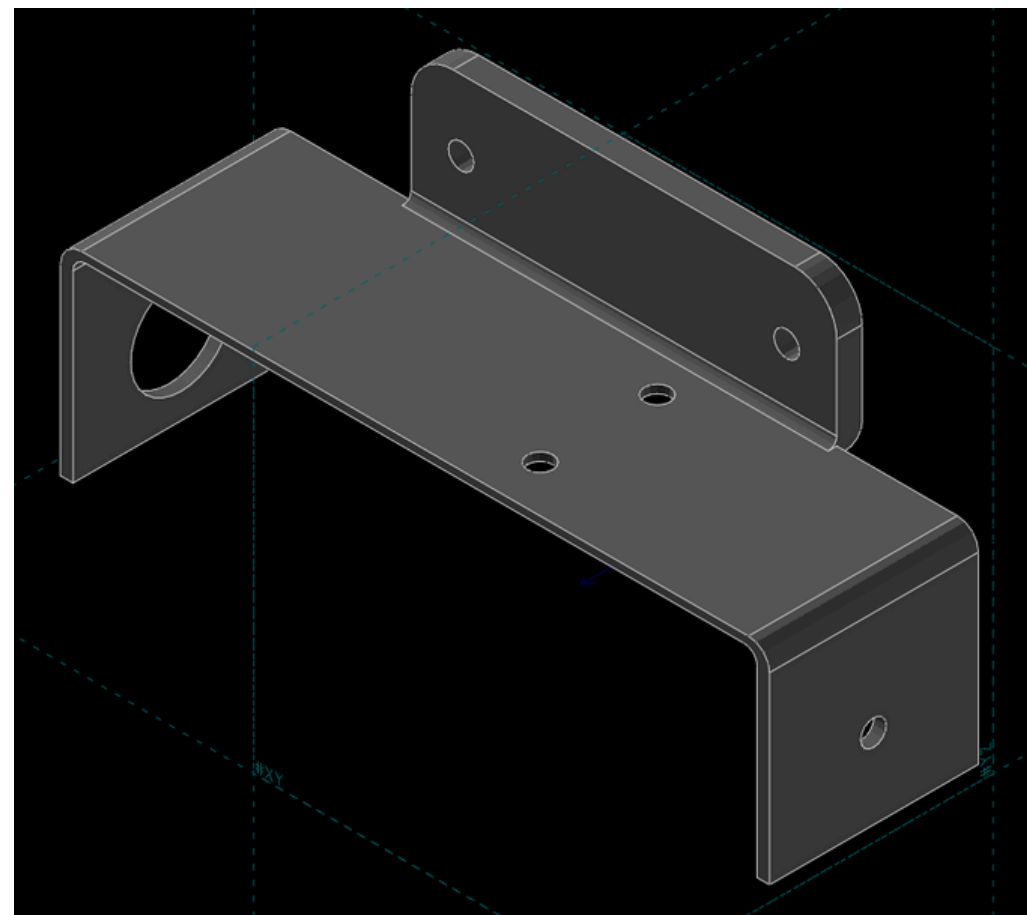


# 發射器:零件

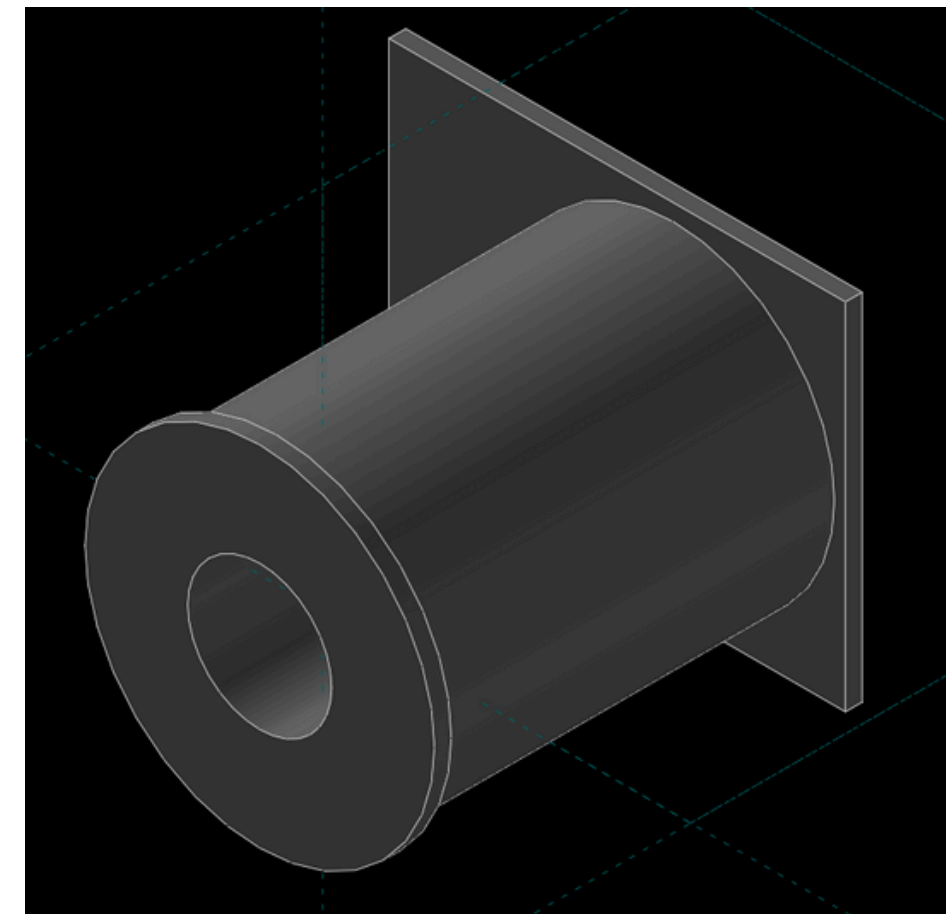
Plongeur Renvoi bille\_sldprt



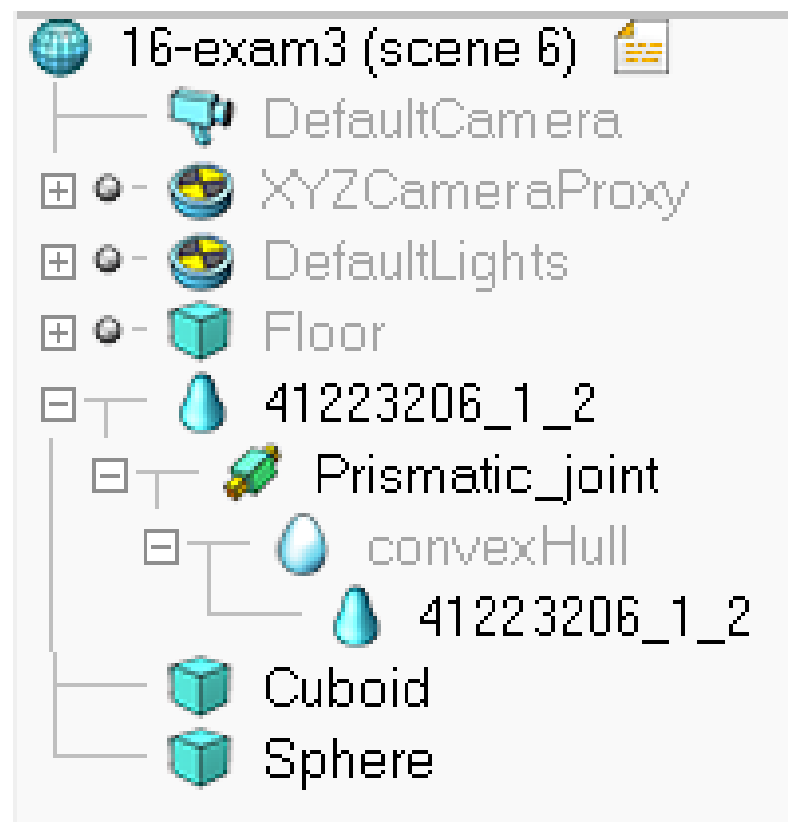
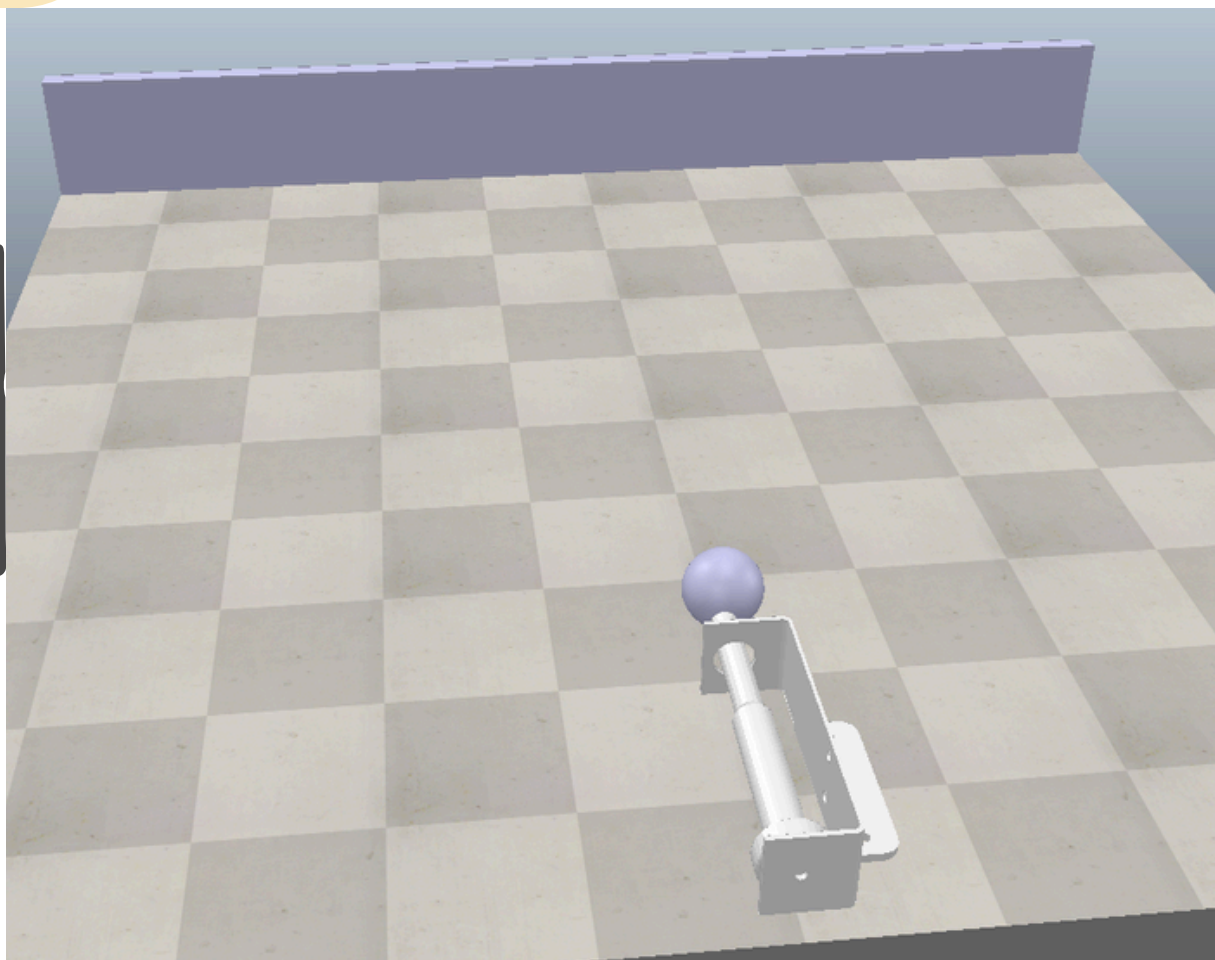
Platine renvoie bille\_sldprt



solenoid



# 發射器:程式



```
# pip install pyzmq cbor keyboard
from coppeliasim_zmqremoteapi_client import RemoteAPIClient
import keyboard

# Connecting to the Coppeliasim server
client = RemoteAPIClient('localhost', 23000)

print('Program started')
sim = client.getObject('sim')

# Get the handle for the slider (prismatic joint)
slider = sim.getObject('/Prismatic_joint')

# Starting the simulation
sim.startSimulation()
print('Simulation started')

# Main control loop
def main():
    # Keep running until simulation is stopped
    while True:
        if keyboard.is_pressed('w'): # Move slider to -0.15 position
            print("w is pressed")
            sim.setJointTargetPosition(slider, -0.15)

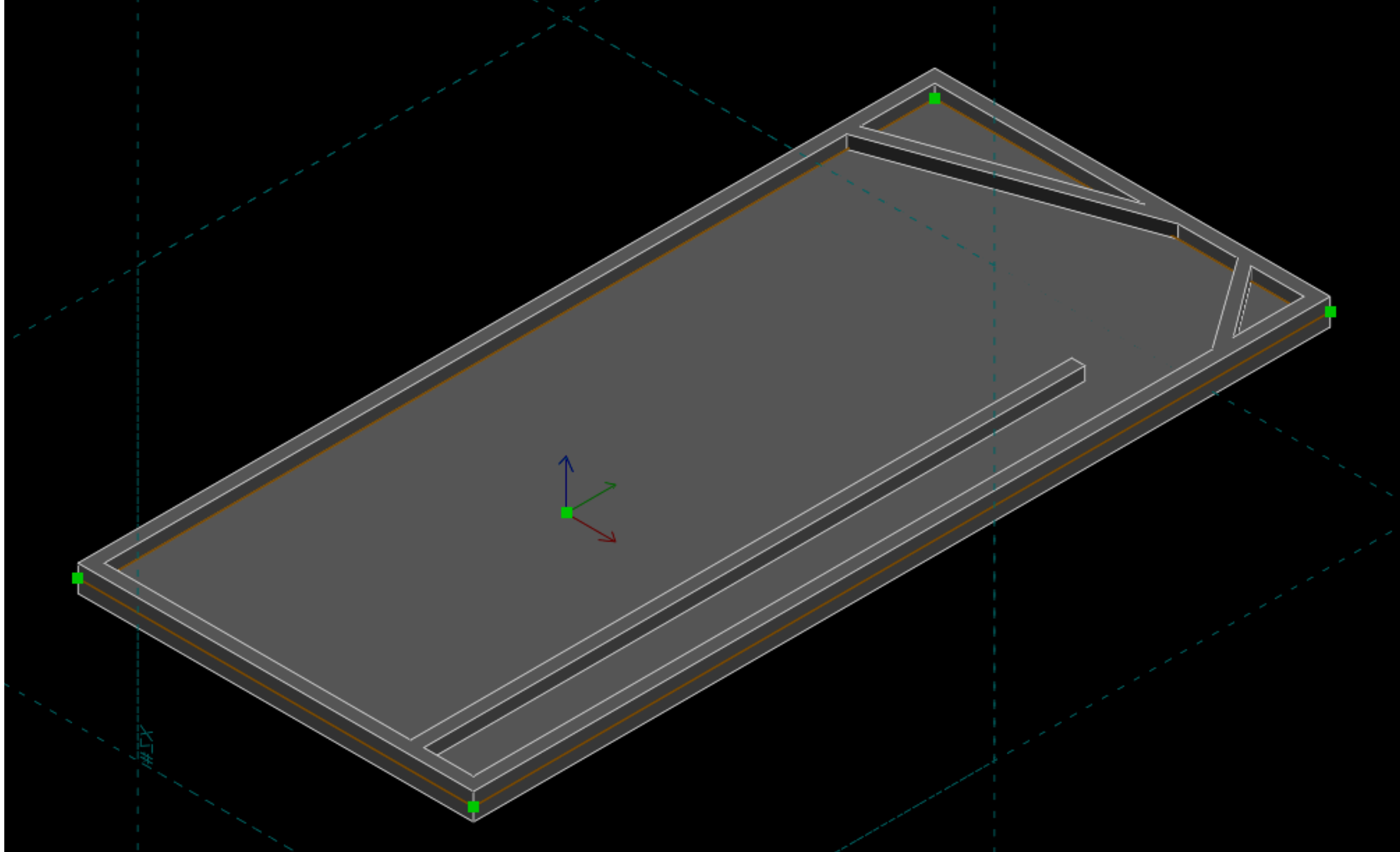
        if keyboard.is_pressed('s'): # Reset slider to the original position
            print("s is pressed")
            sim.setJointTargetPosition(slider, 0.0) # Reset to the initial position

        if keyboard.is_pressed('q'): # Stop the simulation when 'q' is pressed
            print("q is pressed - stopping simulation")
            sim.stopSimulation()
            break

# Start the main control loop
main()
```

[illegible]

# 彈珠台本體



# 彈珠台成品

問題:組裝時發現彈珠撥片在連桿垂直Piece compositeh和left\_metal\_piece的连接處時會出現兩種解導致撥桿沒有往預期的位置作動。

解決方法：把連桿跟其他兩個零件移動成Z字，讓運動狀態成只有唯一解，並且把鏈接件動態關閉，避免回彈。

