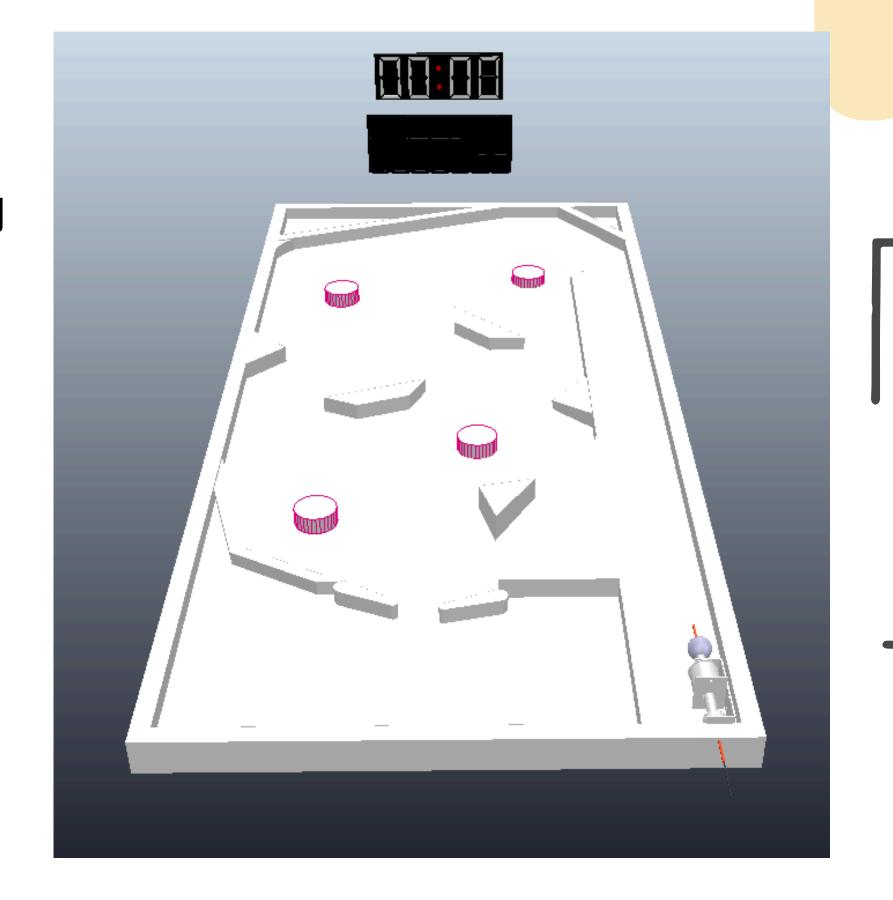
Cad2024 電腦輔設計與實習 彈珠台

組長:41223228洪英毓

組員:41223227施宗廷

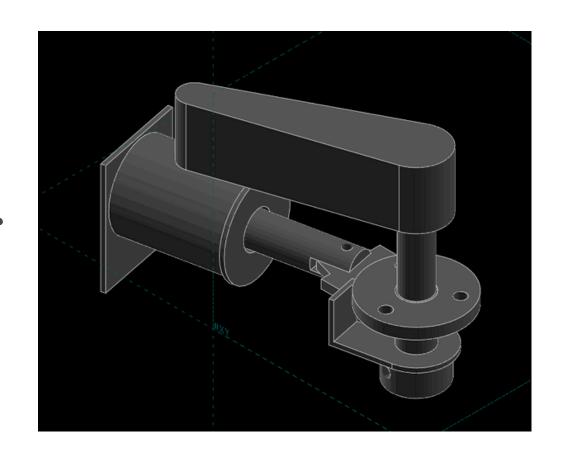
41223206陳顗亘



零件

2.推進器

1. 撥桿





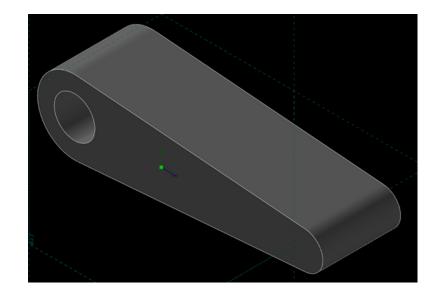
3.彈珠台



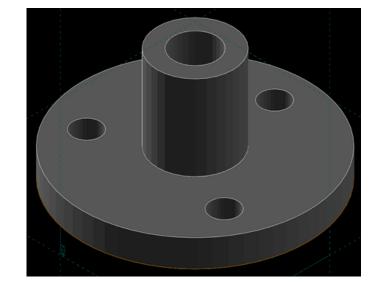
工作分晒

41223206_陳顗亘 負責用solvespace繪製+STL

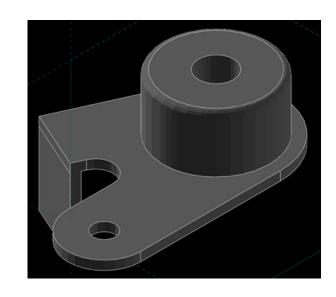
flipper



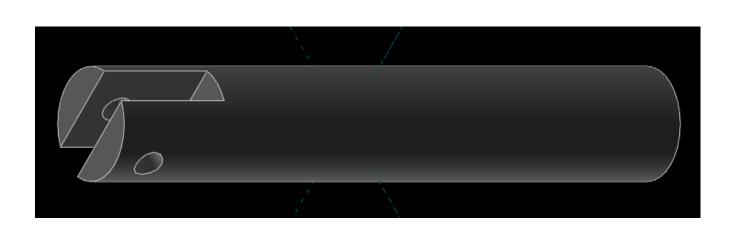
plastic_flipper



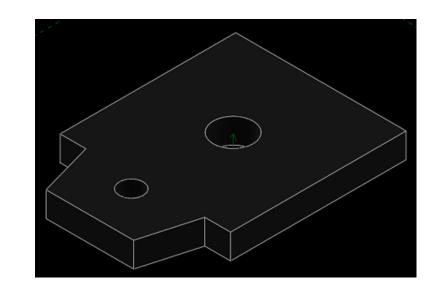
left_metal_piece



slider

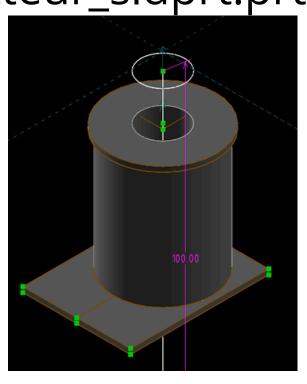


piece_composite

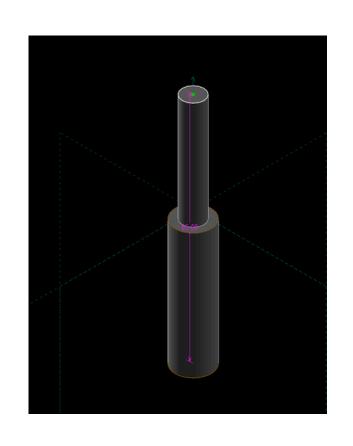


41223228_洪英毓 負責用solvespace+NX繪製

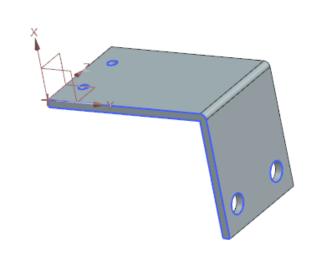
Plongeur Batteur_sldprt.prt



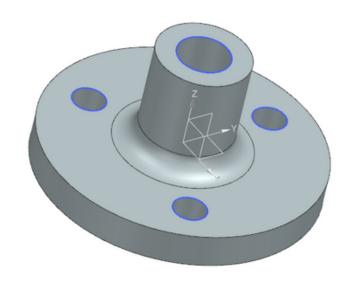
Flipper

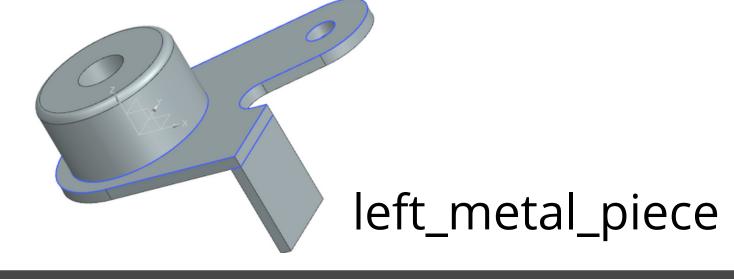


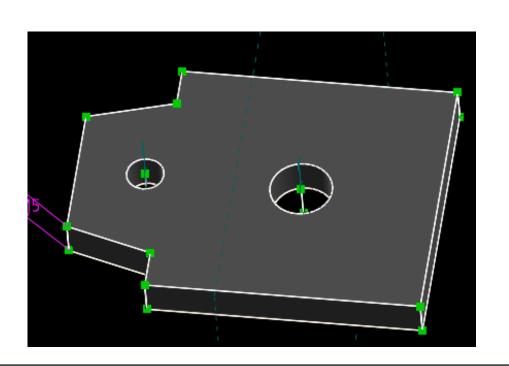
Bobine Batteur_sldprt



plastic_flipper



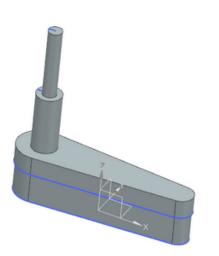




Piece composite

41223227_施宗廷 負責用NX繪製

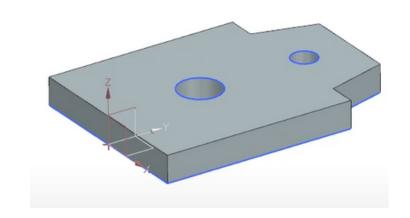
Flipper



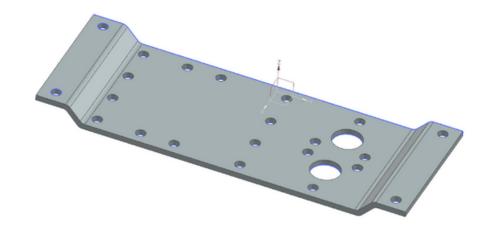
Plongeur Batteur



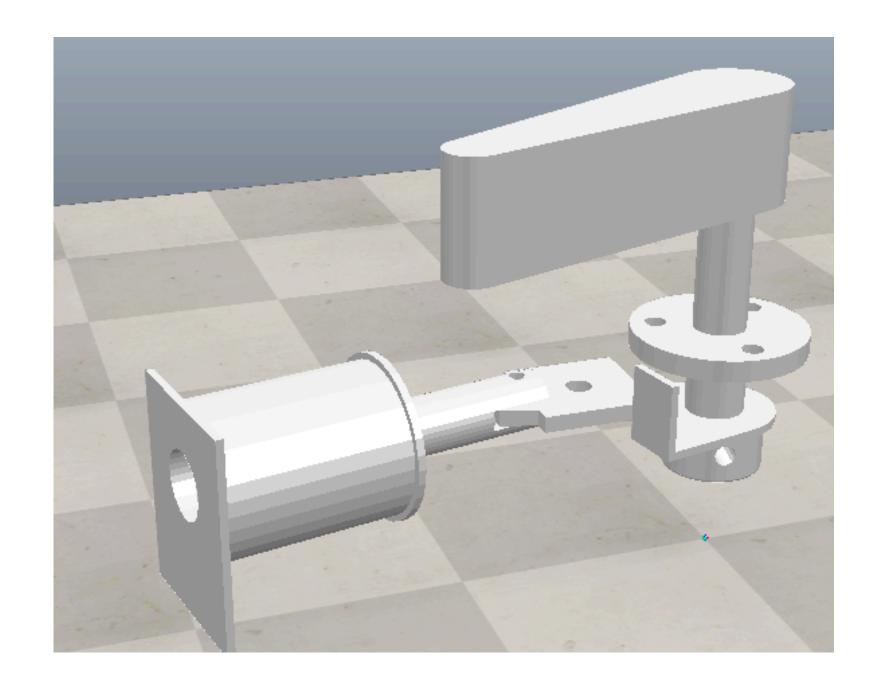
Piece composite

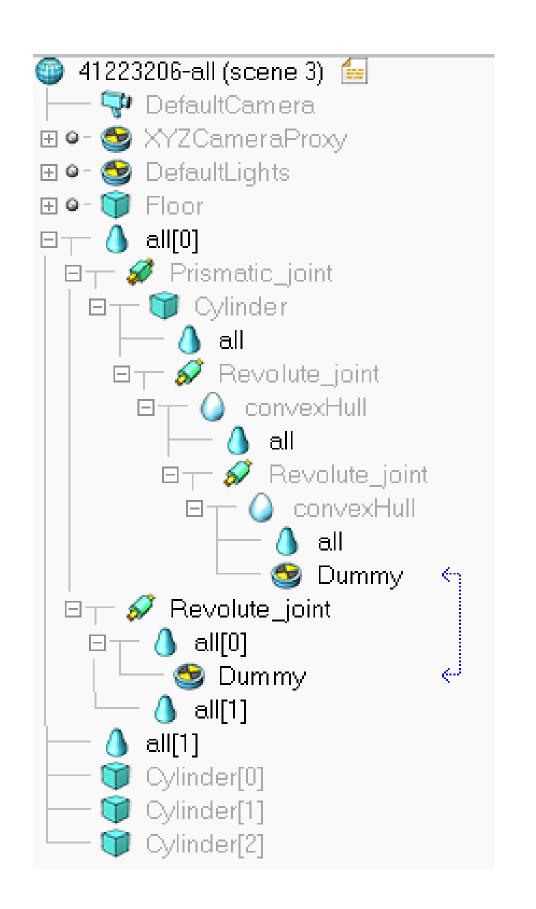


Platine Batteur

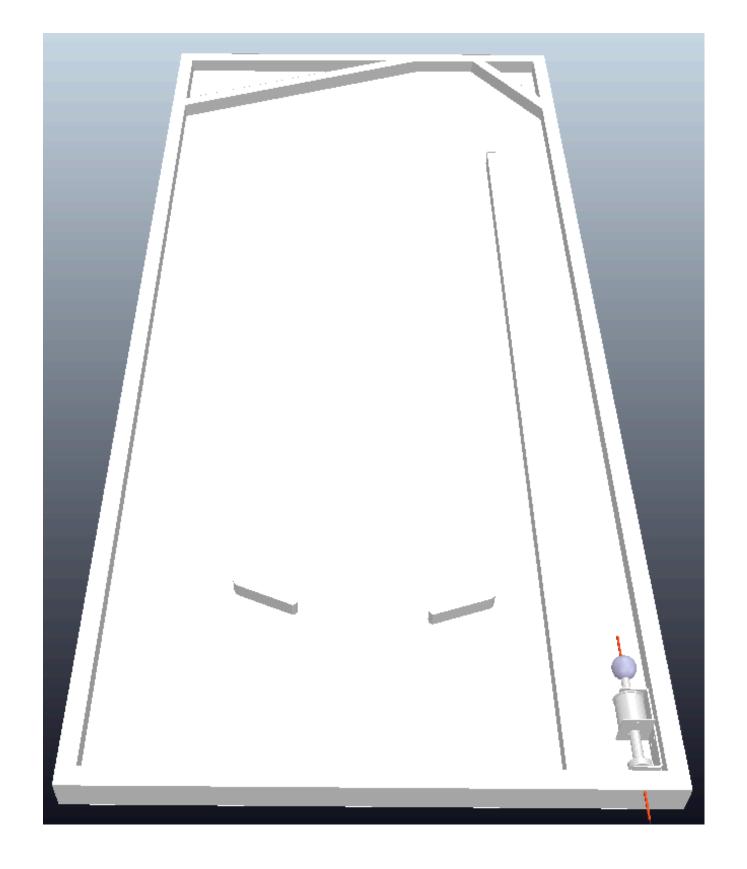


撥桿:程式





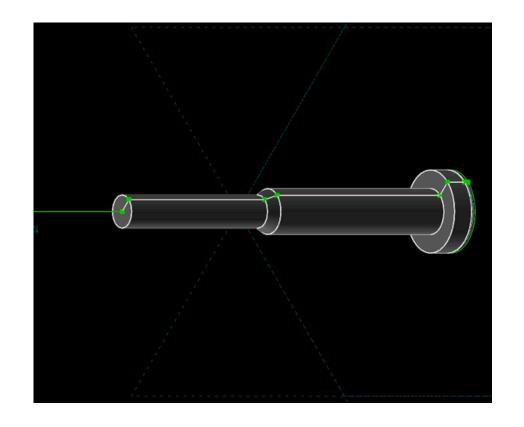
撥桿:程式



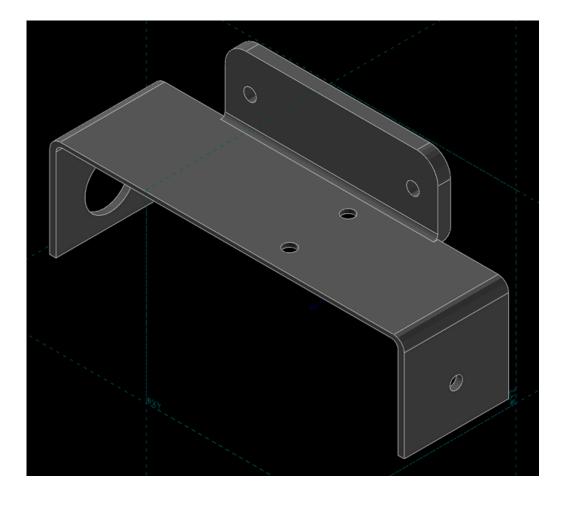
```
# pip install pyzmq cbor keyboard
                                                                                     s is pressed
 from coppeliasim_zmgremoteapi_client import RemoteAPIClient
                                                                                     I is pressed
                                                                                     s is pressed
 import keyboard
                                                                                     I is pressed
                                                                                     s is pressed
 # Connecting to the CoppeliaSim server
                                                                                     I is pressed
 client = RemoteAPIClient('localhost', 23000)
                                                                                     s is pressed
                                                                                     I is pressed
 print('Program started')
                                                                                     s is pressed
 sim = client.getObject('sim')
                                                                                     I is pressed
                                                                                     s is pressed
 # Get the handle for the slider (prismatic joint)
                                                                                     I is pressed
                                                                                     s is pressed
 cw= sim.getObject('/cw_joint')
 ccw= sim.getObject('/ccw_joint')
                                                                                     s is pressed
                                                                                     s is pressed
                                                                                     s is pressed
 # Starting the simulation
                                                                                     s is pressed
 sim.startSimulation()
                                                                                     s is pressed
 print('Simulation started')
                                                                                     s is pressed
                                                                                     s is pressed
 # Main control loop
                                                                                     s is pressed
- def main():
                                                                                     s is pressed
                                                                                     s is pressed
    # Keep running until simulation is stopped
                                                                                     s is pressed
    while True:
                                                                                     s is pressed
       if keyboard.is_pressed('p'): # Move slider to -0.15 position
                                                                                     s is pressed
          print("p is pressed")
                                                                                     s is pressed
          sim.setJointTargetPosition(cw, 0.04)
                                                                                     s is pressed
       飞幺
                                                                                     s is pressed
       if keyboard.is_pressed('t'): # Reset slider to the original position
                                                                                     s is pressed
          print("l is pressed")
                                                                                     s is pressed
          sim.setJointTargetPosition(cw, 0.0) # Reset to the initial position
                                                                                     s is pressed
                                                                                     s is pressed
                                                                                     s is pressed
       if keyboard.is_pressed('w'): # Move slider to -0.15 position
                                                                                     s is pressed
          print("w is pressed")
                                                                                     s is pressed
          sim.setJointTargetPosition(ccw, -0.08)
                                                                                     s is pressed
                                                                                     s is pressed
       if keyboard.is_pressed('s'): # Reset slider to the original position
                                                                                     s is pressed
          print("s is pressed")
                                                                                     s is pressed
          sim.setJointTargetPosition(ccw, 0.0) # Reset to the initial position
                                                                                     s is pressed
                                                                                     s is pressed
                                                                                     s is pressed
       if keyboard.is_pressed('t'): # Stop the simulation when 'q' is pressed
                                                                                     s is pressed
          print("t is pressed - stopping simulation")
                                                                                     s is pressed
          sim.stopSimulation()
                                                                                     s is pressed
          break
                                                                                     s is pressed
                                                                                     s is pressed
 # Start the main control loop
                                                                                     s is pressed
 main()
```

發射器:零件

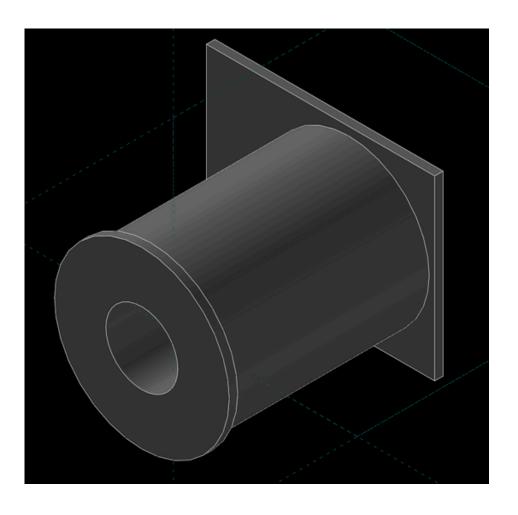
Plongeur Renvoi bille_sldprt



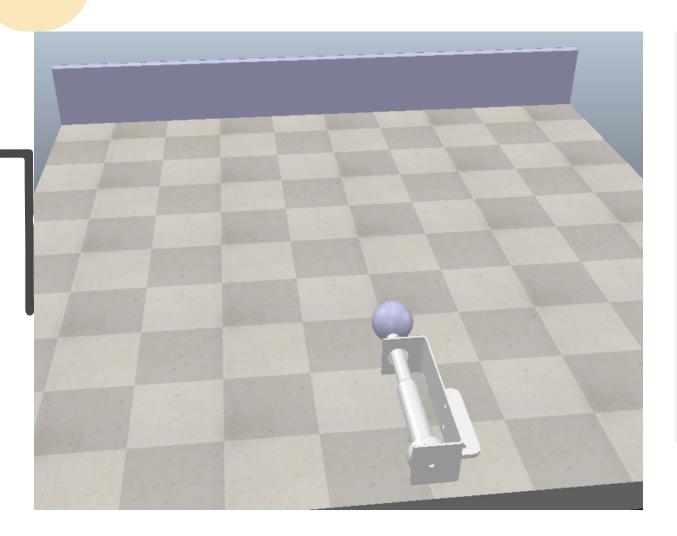
Platine renvoie bille_sldprt

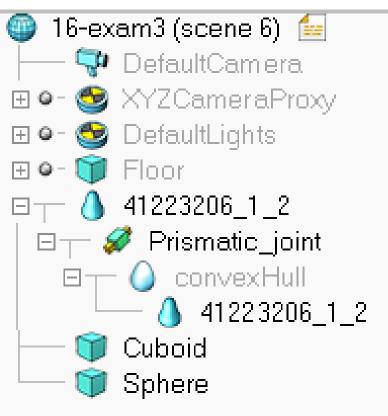


solenoid



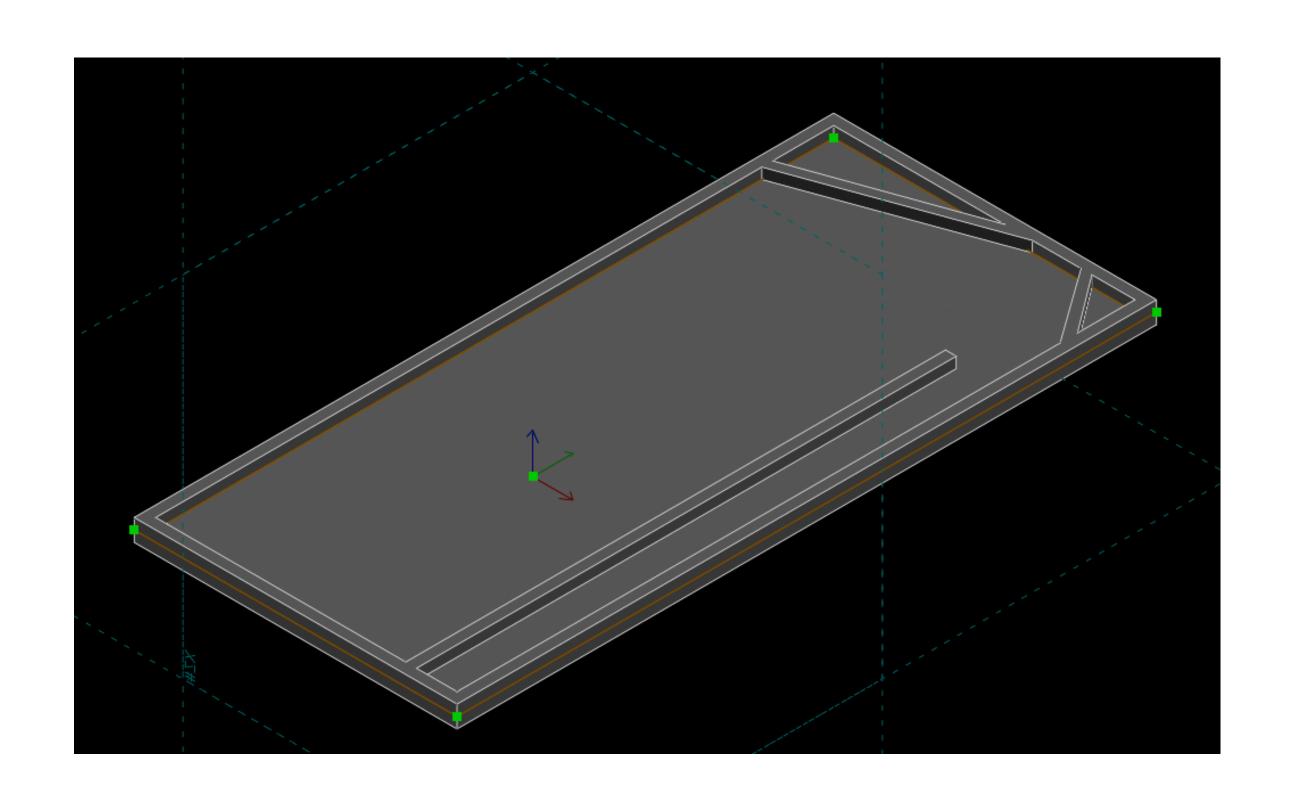
發射器:程式





```
# pip install pyzmq cbor keyboard
                                                                                     s is pressed
 from coppeliasim_zmgremoteapi_client import RemoteAPIClient
                                                                                     s is pressed
                                                                                     s is pressed
 import keyboard
                                                                                     s is pressed
                                                                                     s is pressed
 # Connecting to the CoppeliaSim server
                                                                                     s is pressed
 client = RemoteAPIClient('localhost', 23000)
                                                                                     s is pressed
                                                                                     s is pressed
 print('Program started')
                                                                                     s is pressed
 sim = client.getObject('sim')
                                                                                     s is pressed
                                                                                     s is pressed
 # Get the handle for the slider (prismatic joint)
                                                                                     s is pressed
                                                                                     s is pressed
 slider = sim.getObject('/Prismatic_joint')
                                                                                     s is pressed
                                                                                     s is pressed
 # Starting the simulation
                                                                                     s is pressed
 sim.startSimulation()
                                                                                     s is pressed
 print('Simulation started')
                                                                                     s is pressed
                                                                                     s is pressed
 # Main control loop
                                                                                     s is pressed
- def main():
                                                                                     s is pressed
    # Keep running until simulation is stopped
                                                                                     s is pressed
                                                                                     s is pressed
    while True:
                                                                                     s is pressed
       if keyboard.is_pressed('w'): # Move slider to -0.15 position
                                                                                     s is pressed
          print("w is pressed")
                                                                                     s is pressed
          sim.setJointTargetPosition(slider, -0.15)
                                                                                     s is pressed
                                                                                     s is pressed
       if keyboard.is_pressed('s'): # Reset slider to the original position
                                                                                     s is pressed
          print("s is pressed")
                                                                                     s is pressed
          sim.setJointTargetPosition(slider, 0.0) # Reset to the initial position
                                                                                     s is pressed
                                                                                     s is pressed
                                                                                     s is pressed
       if keyboard.is_pressed('q'): # Stop the simulation when 'q' is pressed
                                                                                     s is pressed
          print("q is pressed - stopping simulation")
                                                                                     s is pressed
          sim.stopSimulation()
                                                                                     s is pressed
          break
                                                                                     s is pressed
                                                                                     s is pressed
 # Start the main control loop
                                                                                     s is pressed
 main()
                                                                                     s is pressed
```

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的連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。

