



Erasmus+

**ESSLINGEN**  
UNIVERSITY

Blended Intensive Program (BIP)

# Additive Manufacturing: Design and Processing

Heraklion 17/09/23-23/09/23



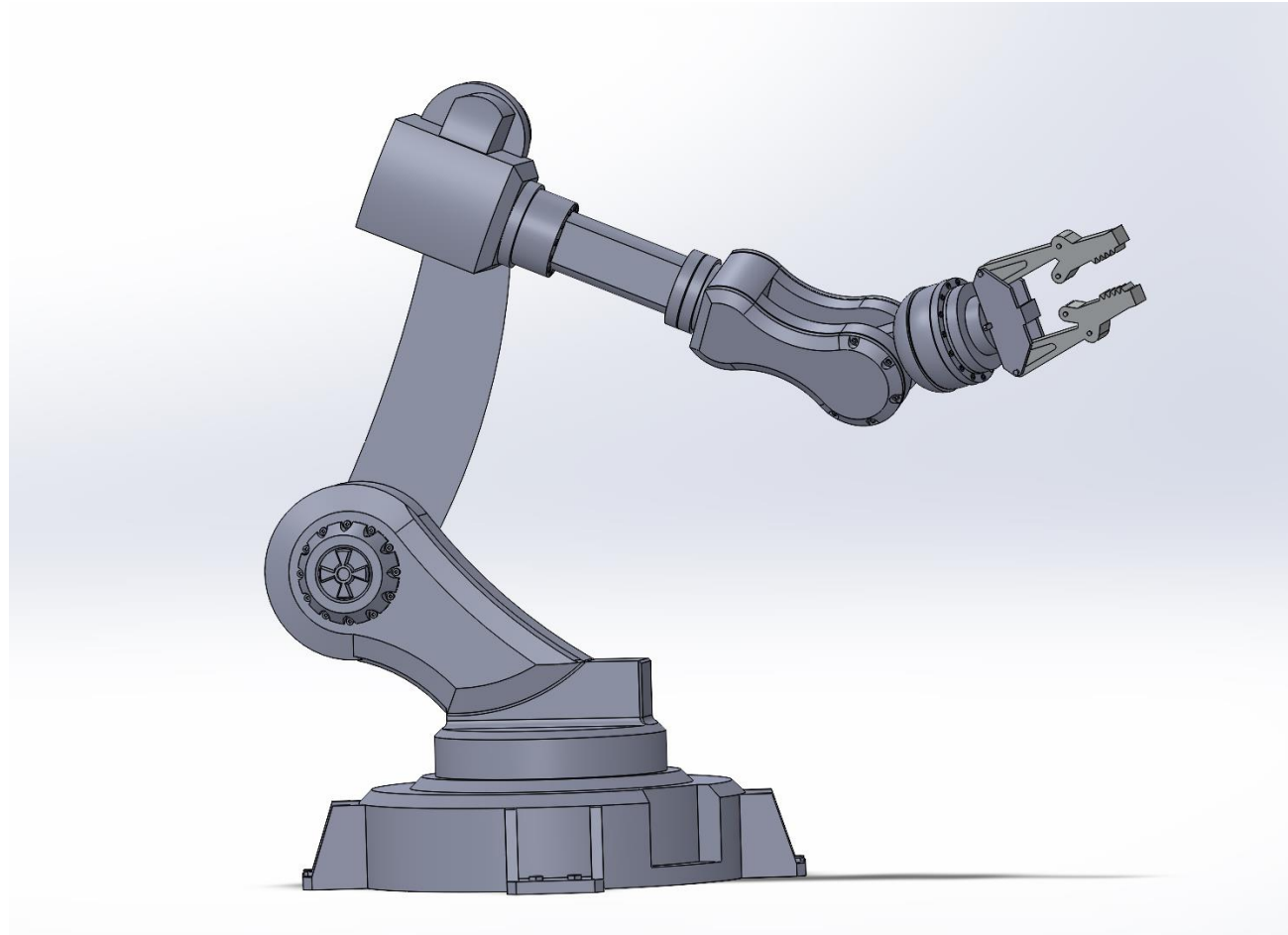
**F R E D E R I C K**  
U N I V E R S I T Y



**Hochschule für Technik  
und Wirtschaft Berlin**

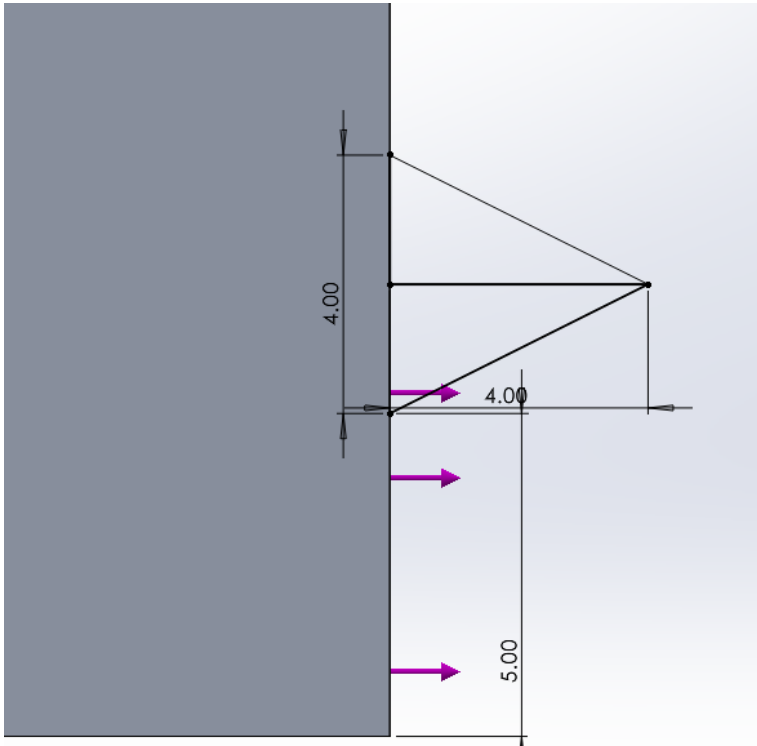
University of Applied Sciences

# Design Project

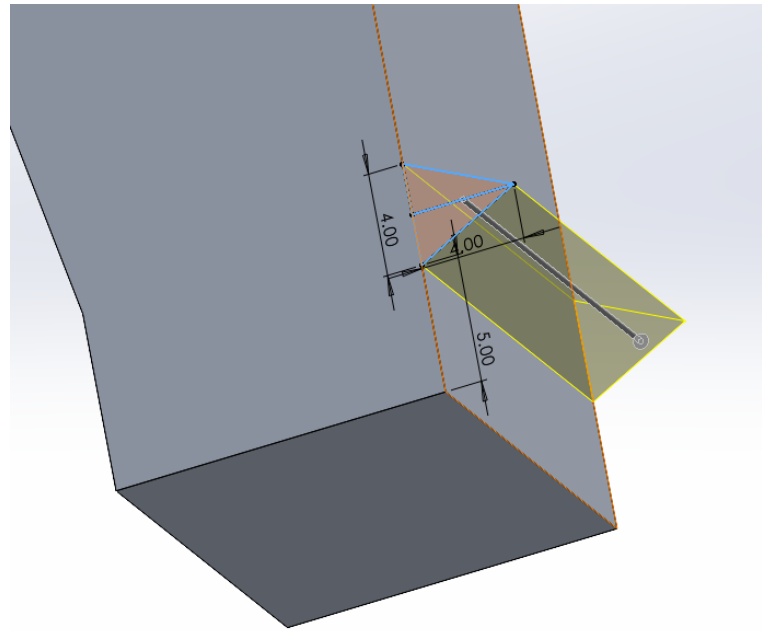




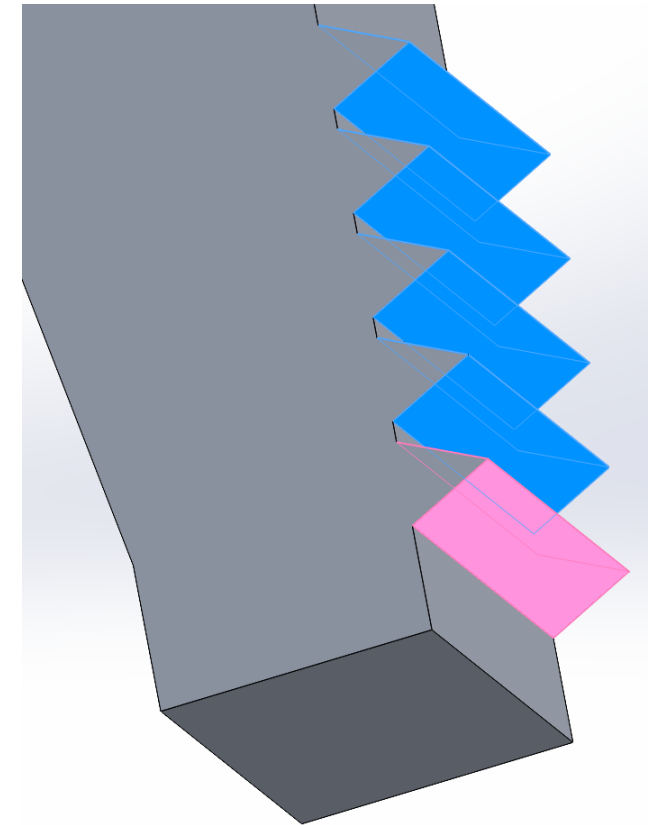
# The gripper



Blended Intensive Program (BIP)

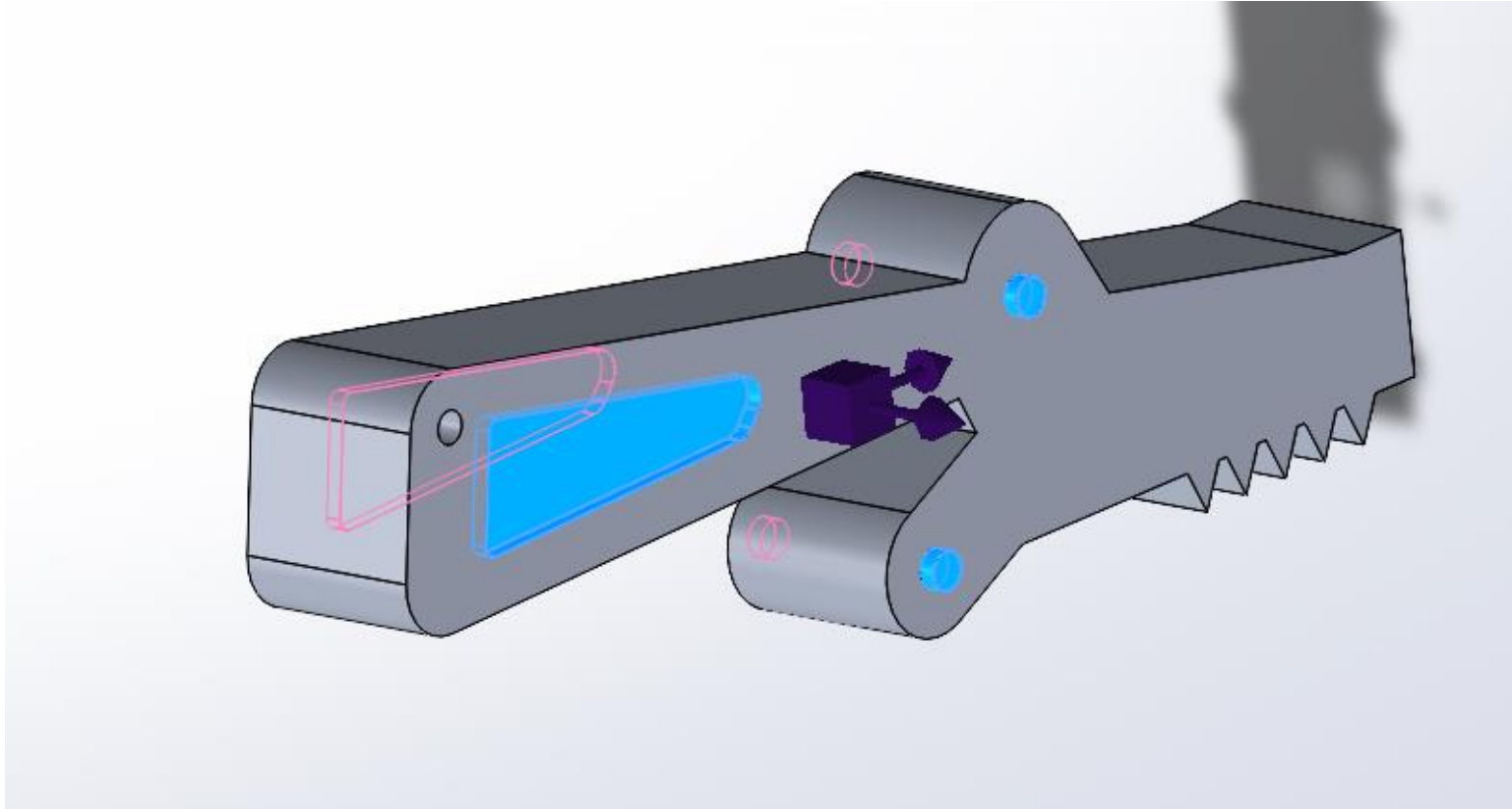


Heraklion 17-23/09

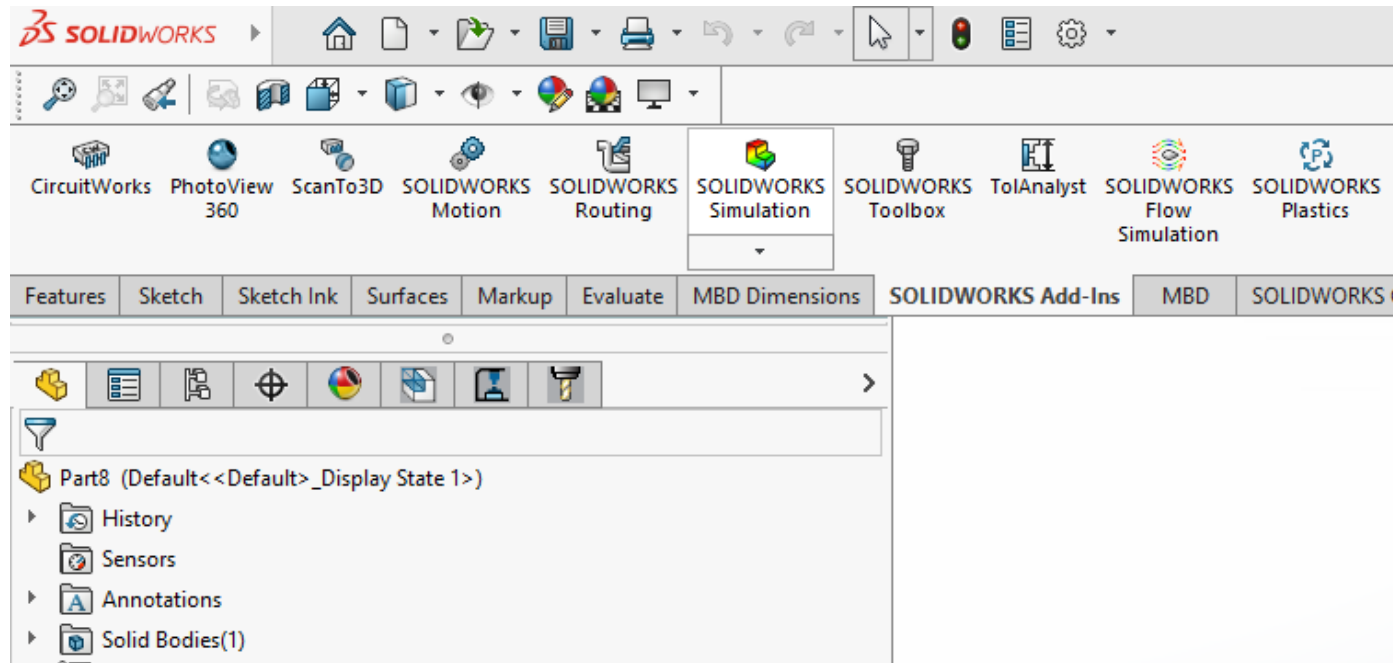


Additive Manufacturing:  
Design and Processing

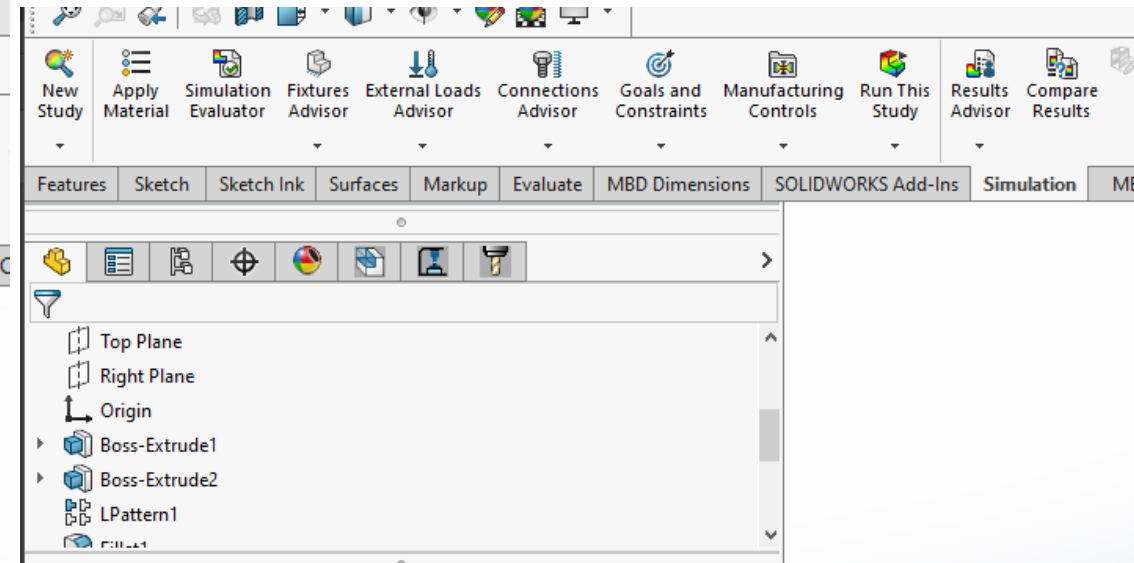
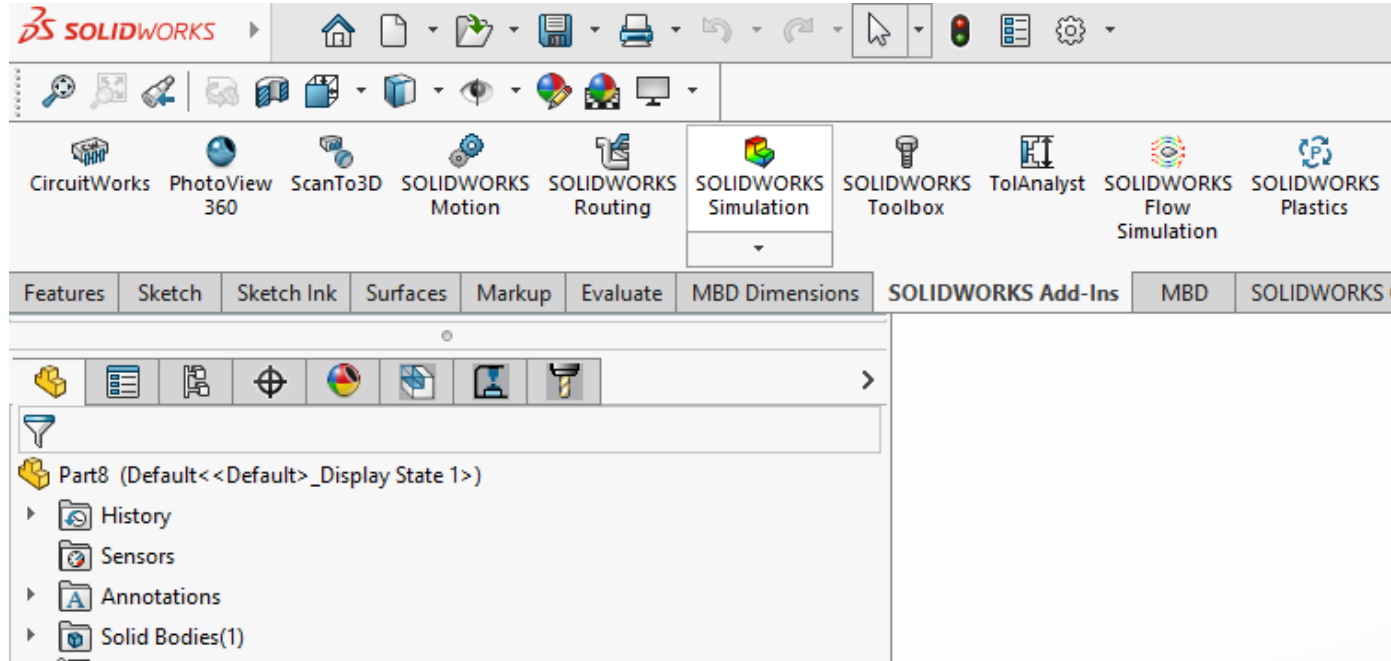
# The whole model



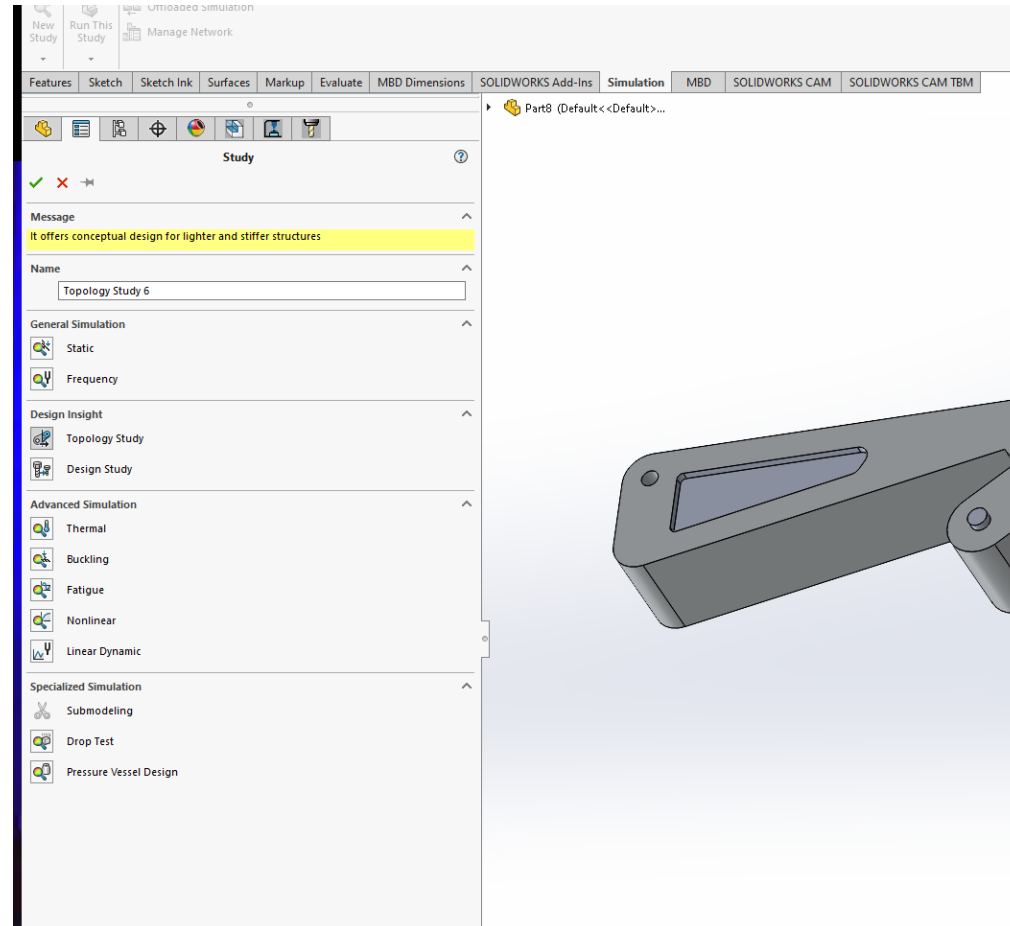
# SW Simulation Ribbon



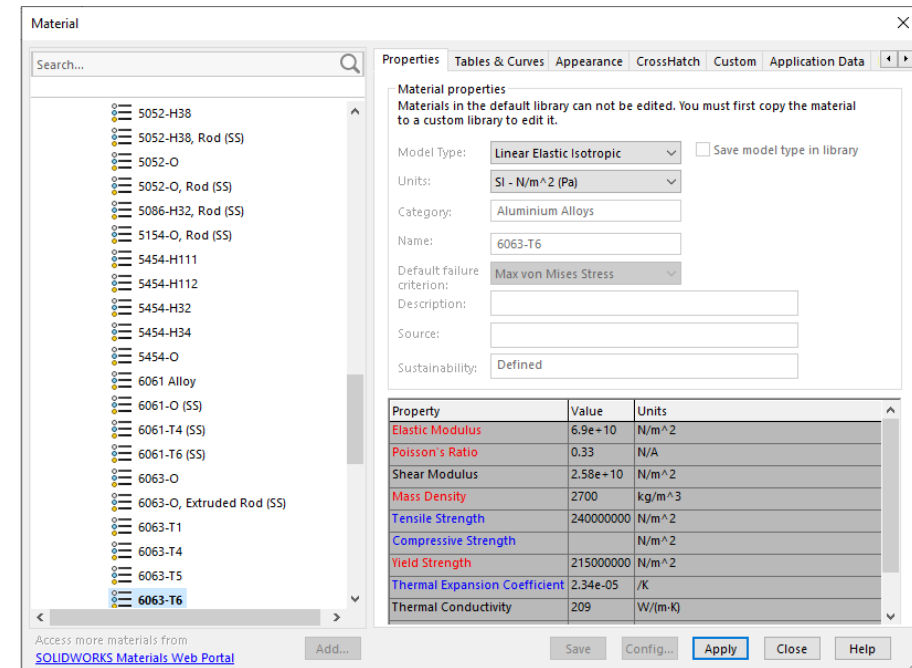
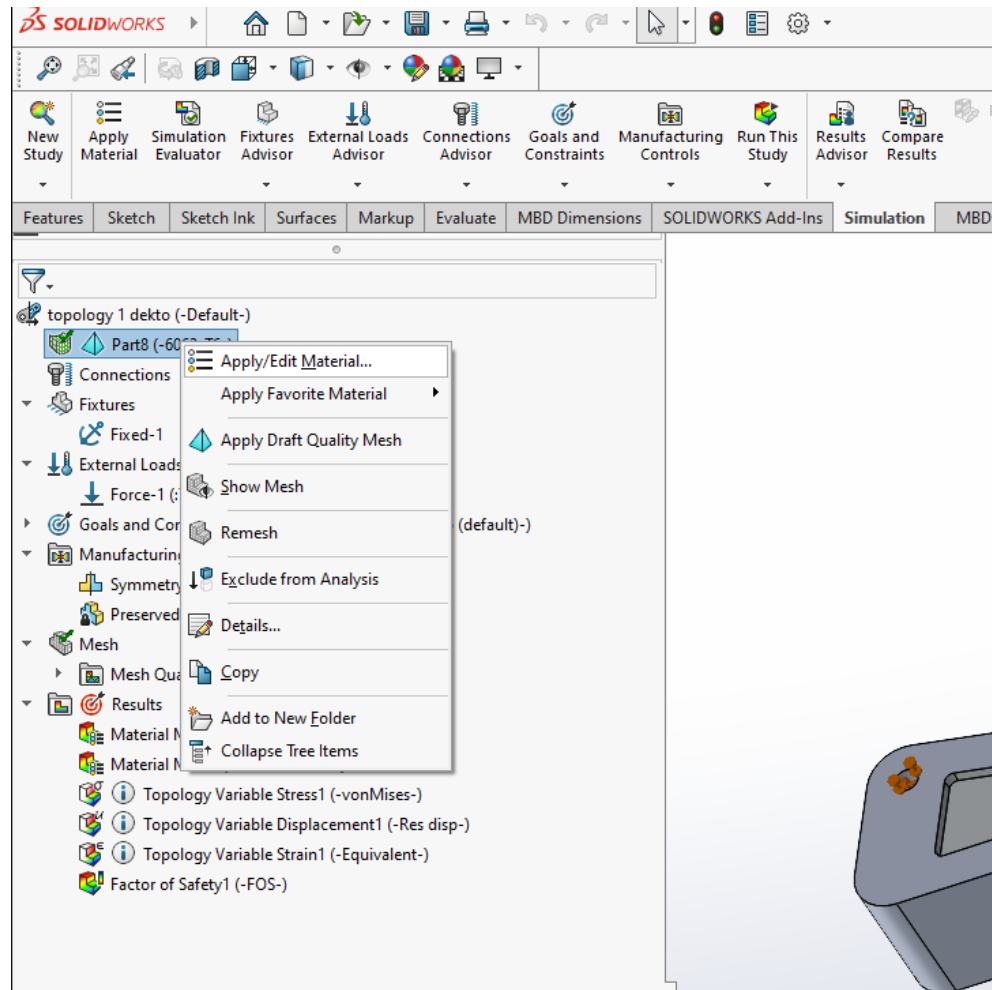
# SW Simulation Ribbon



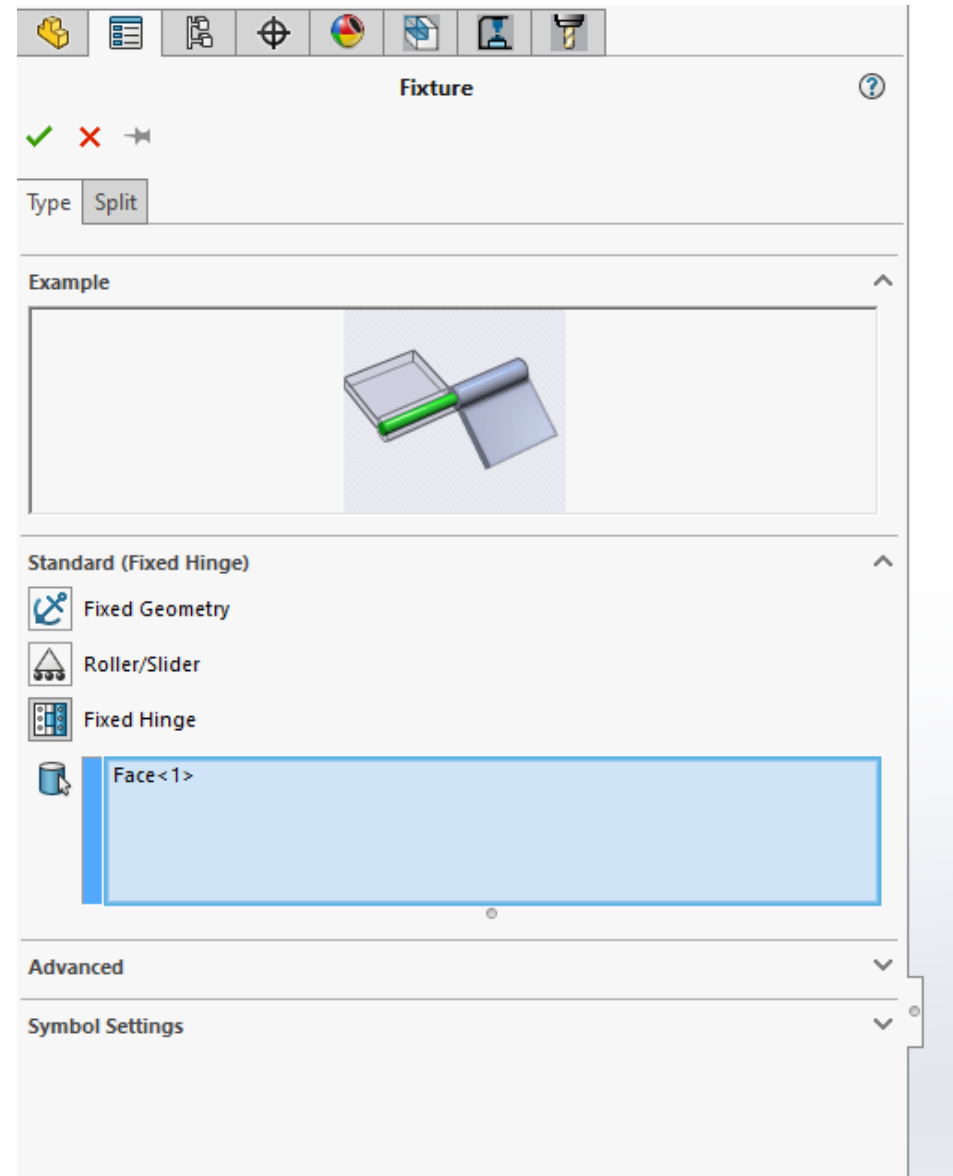
# SW Topology Optimization



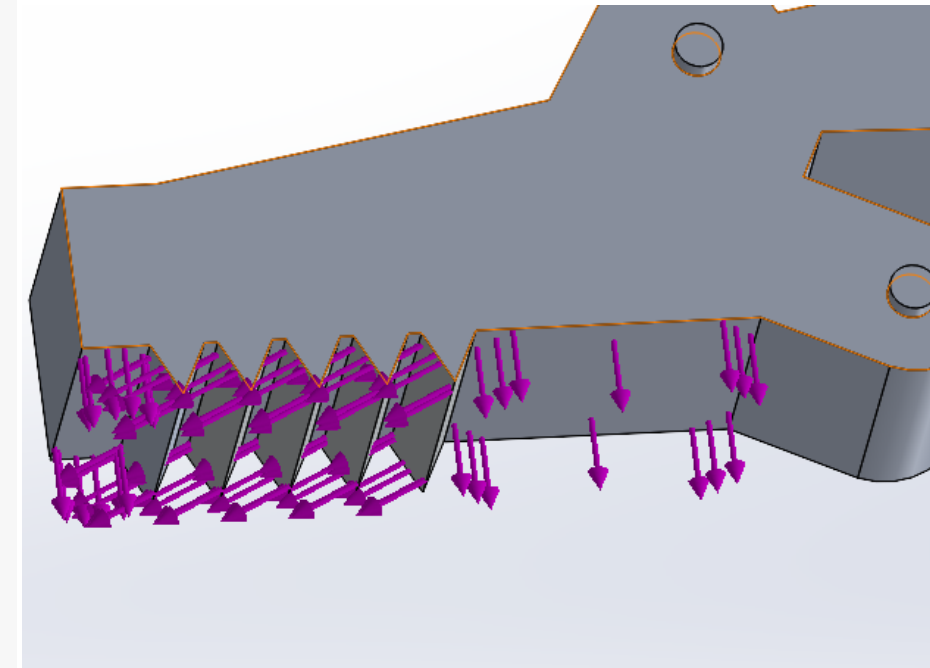
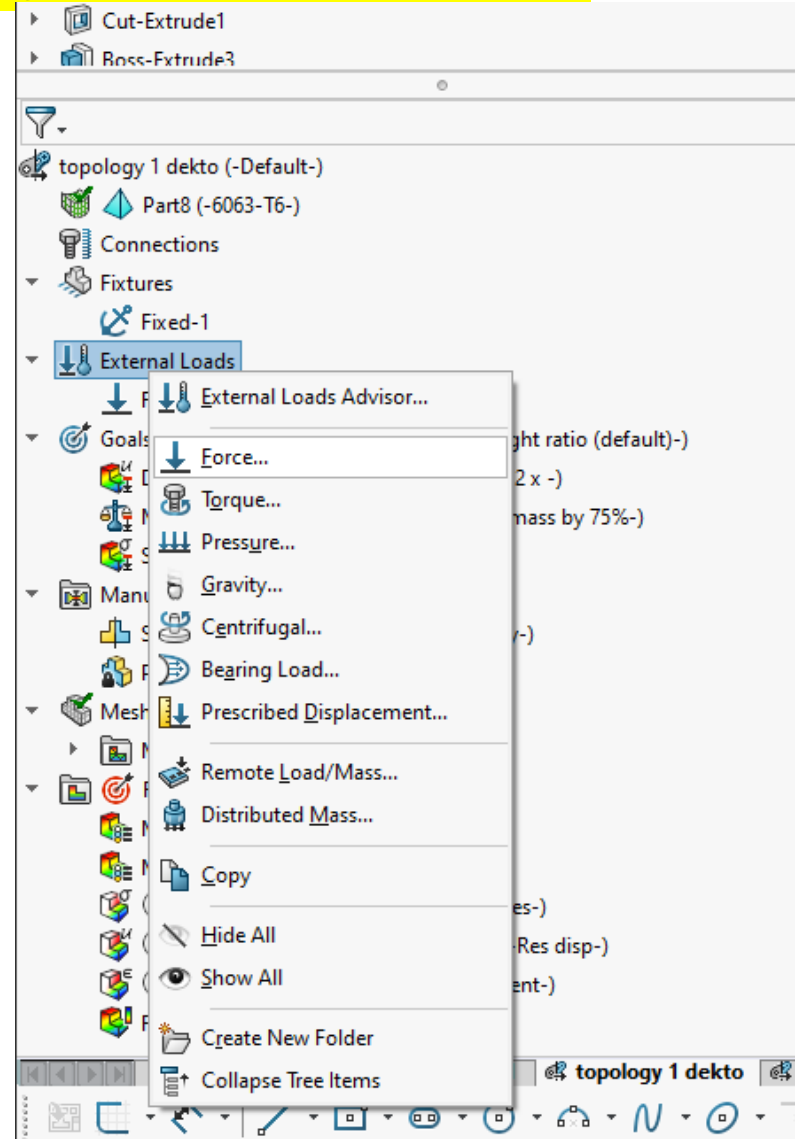
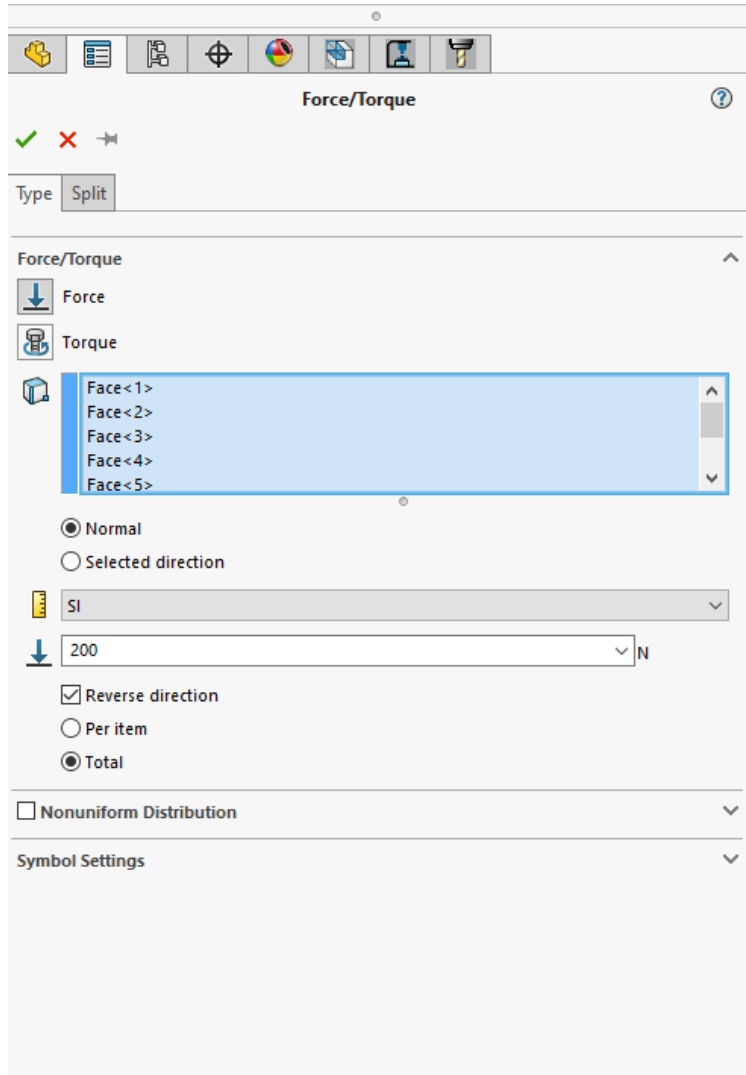
# Add Material



# Add fixtures



# Add Boundary Conditions

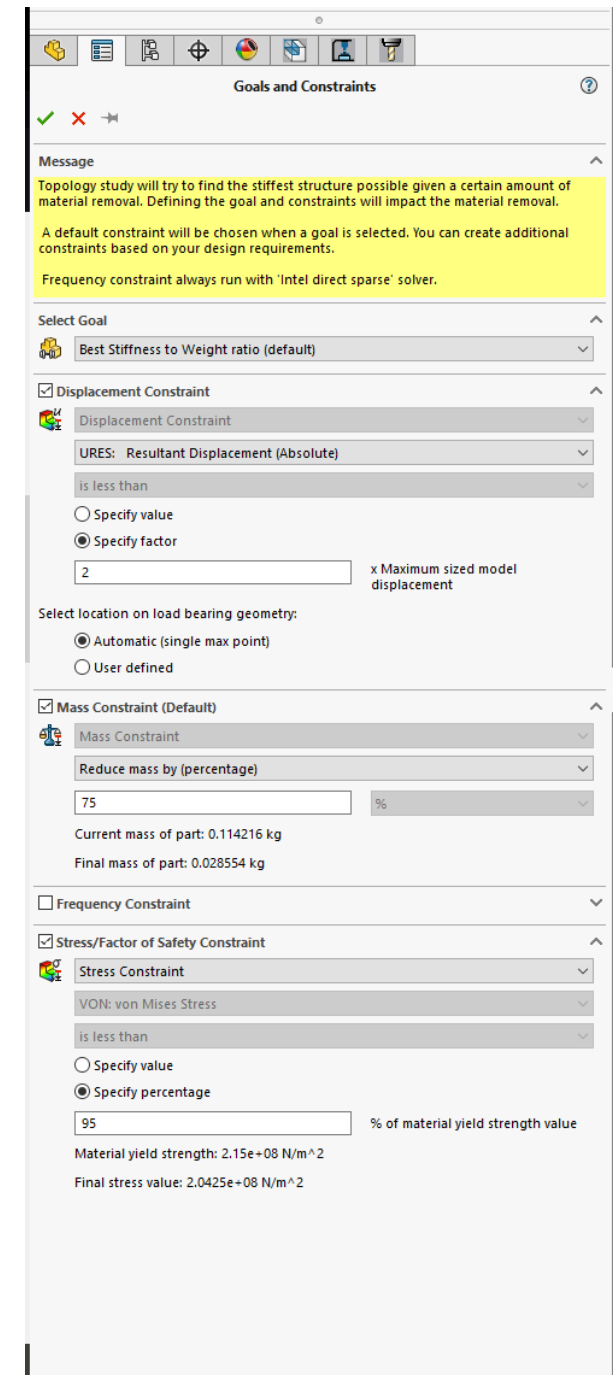


# Add Boundary Conditions

«Best Stiffness to Weight Ratio»

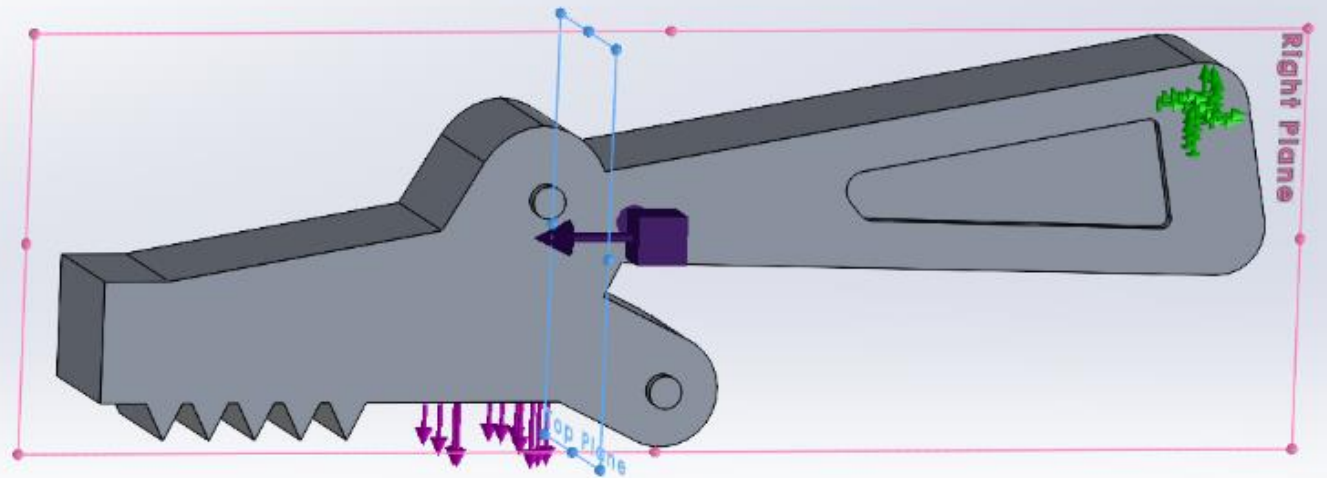
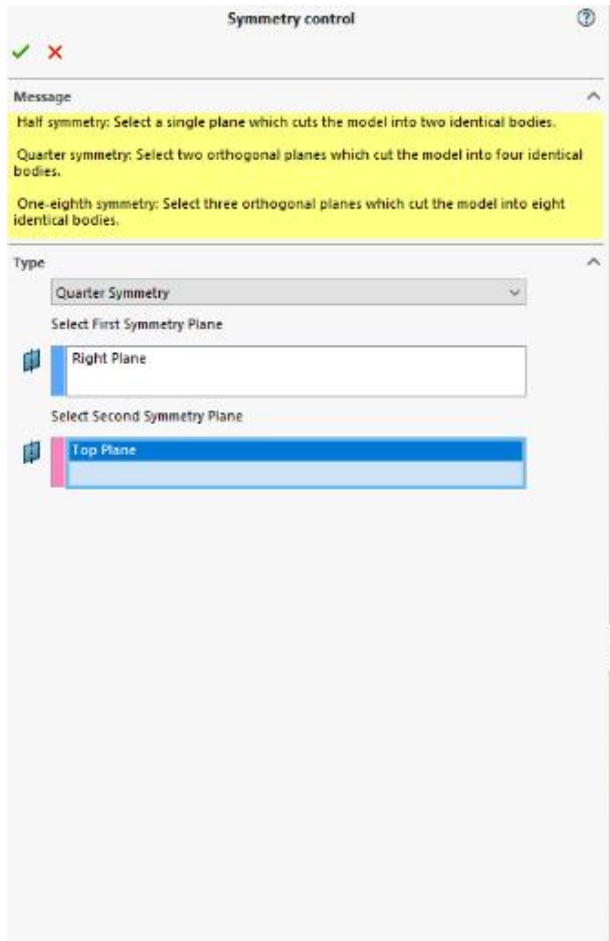
or...

«Minimize Maximum Displacement &  
Minimize Mass»

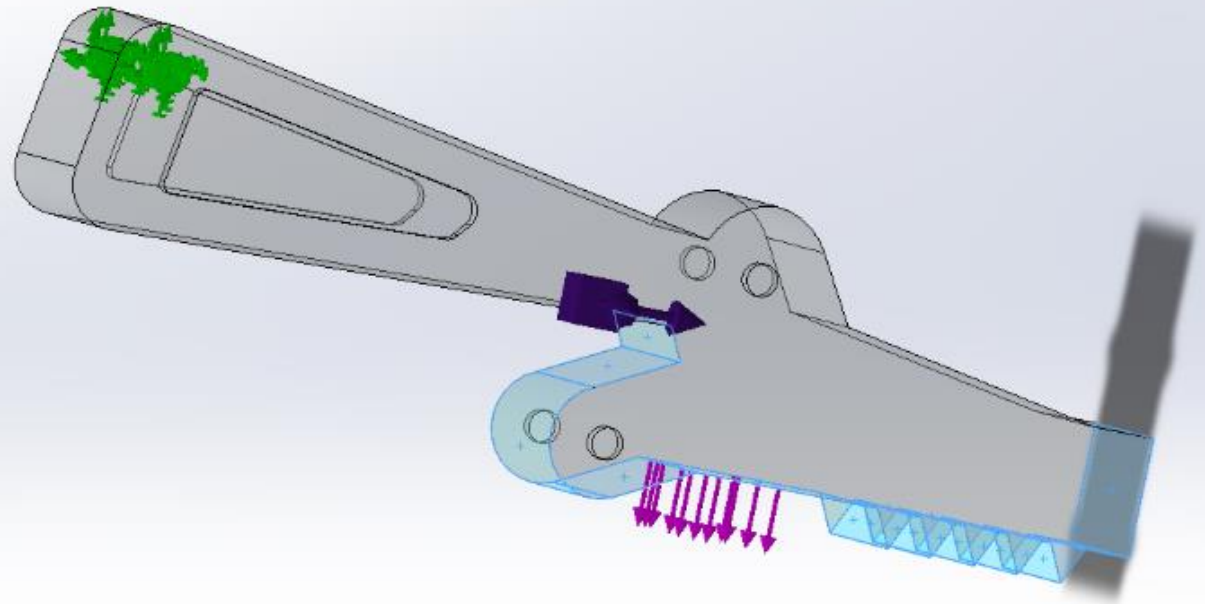
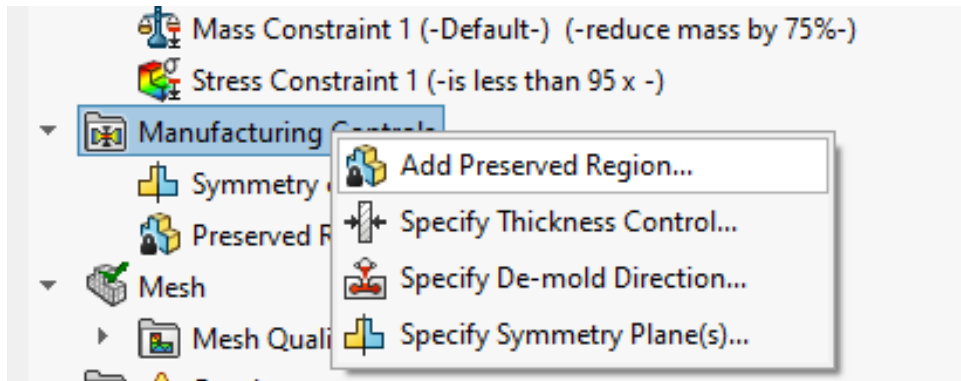


# Add Boundary Conditions

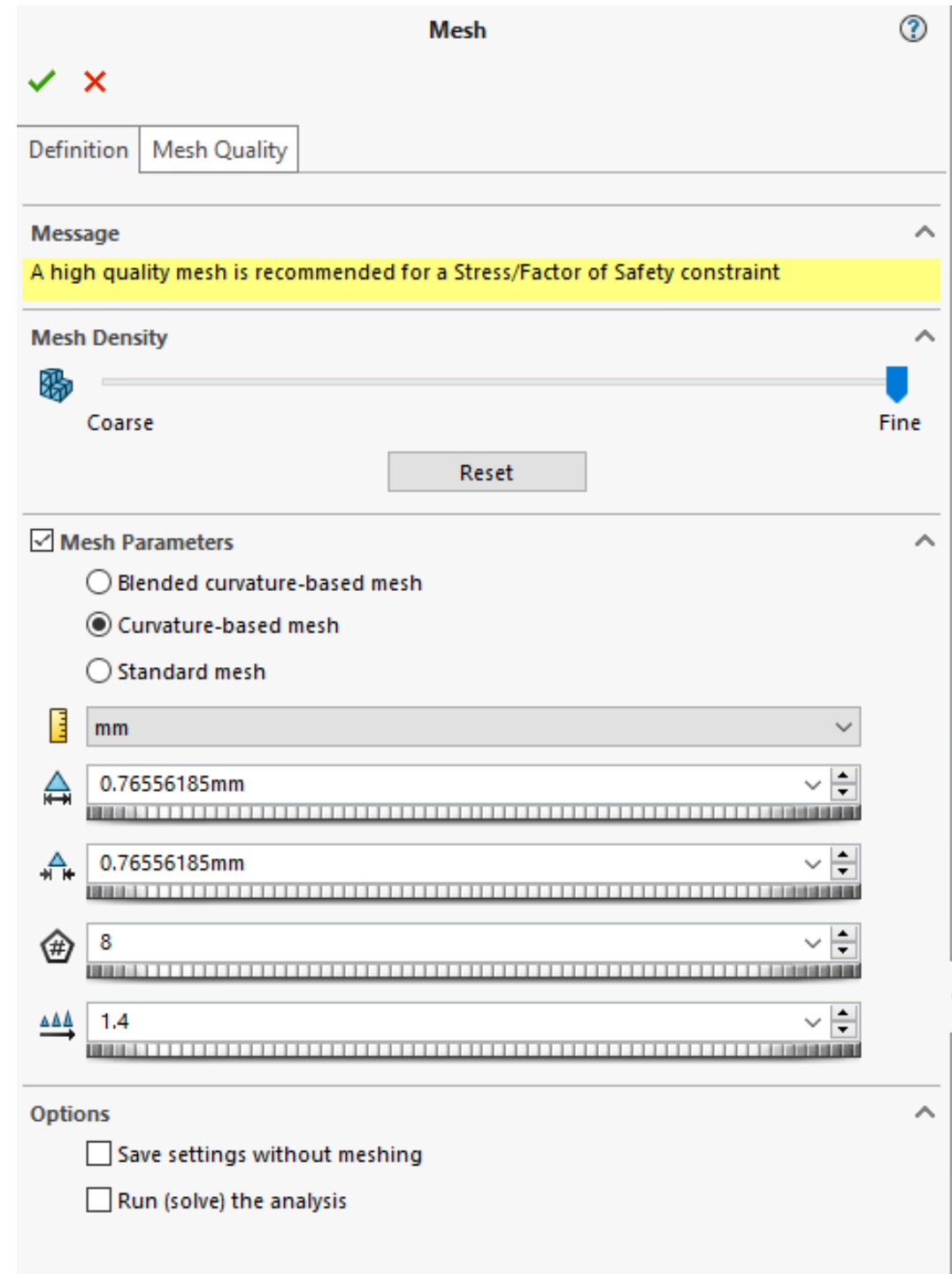
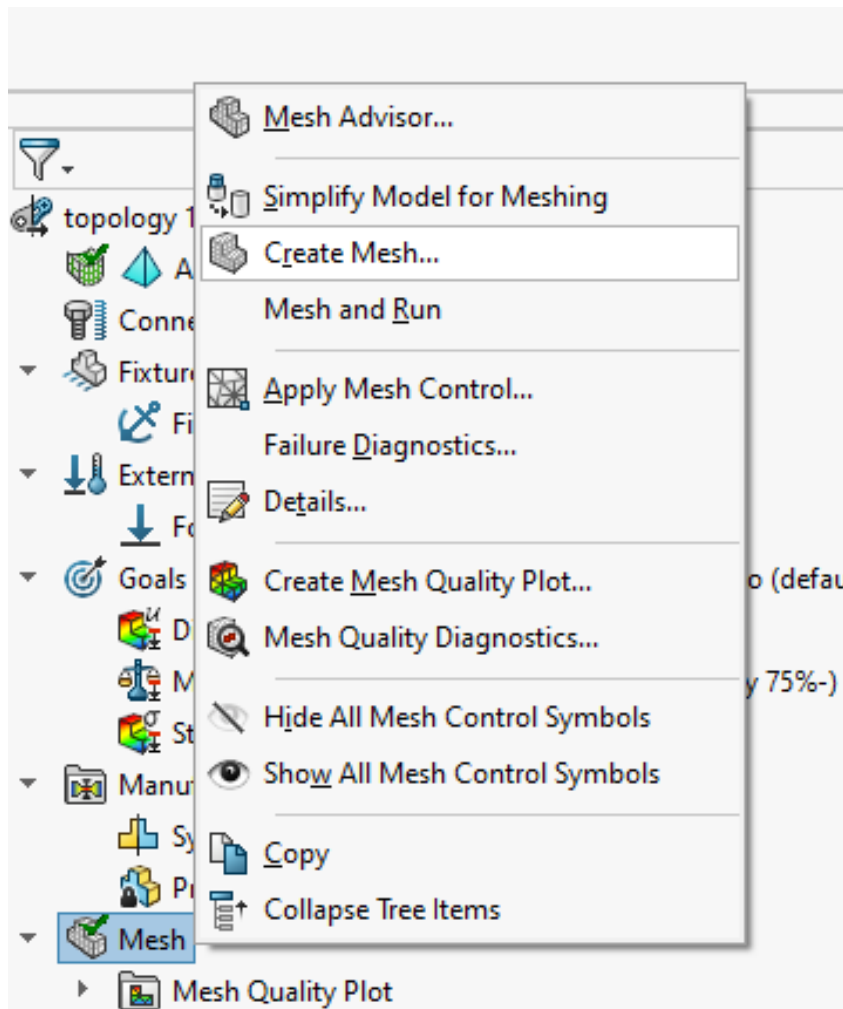
## «Symmetry Control»



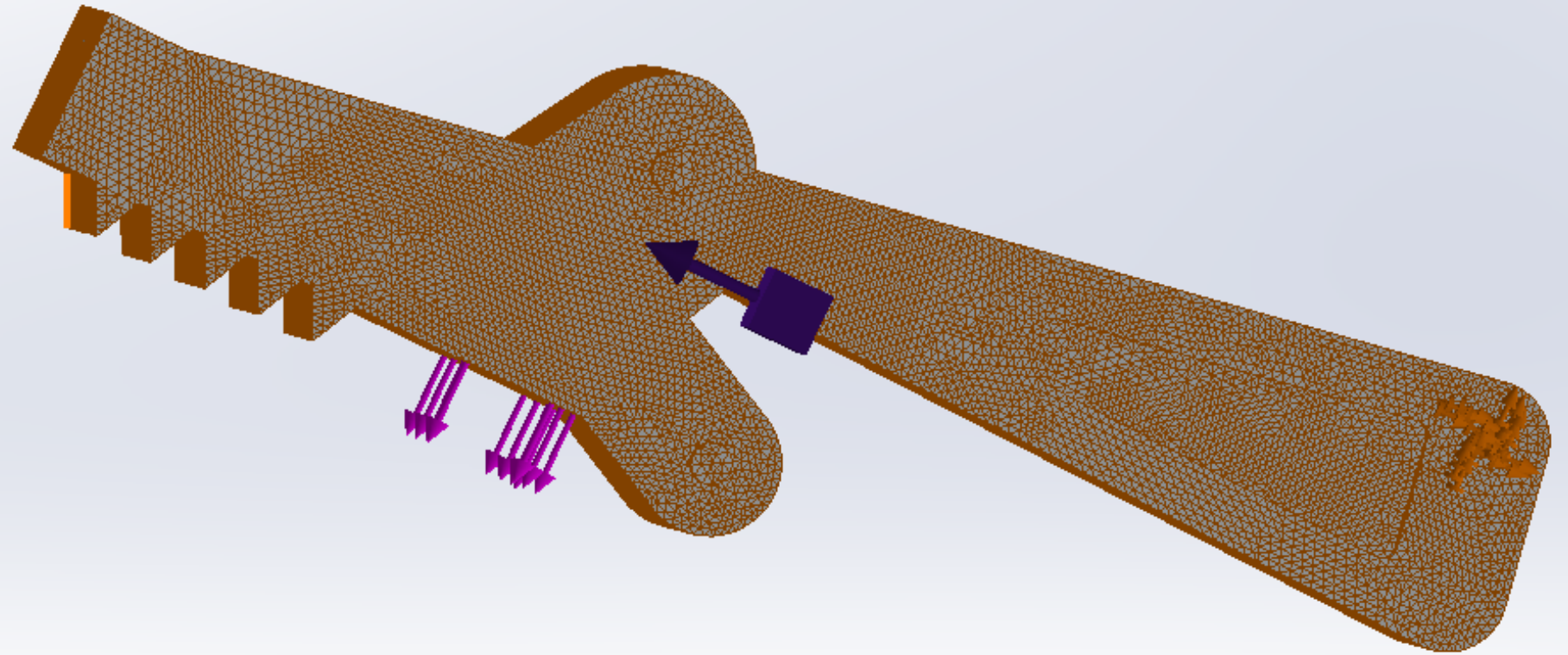
# Preserved Region



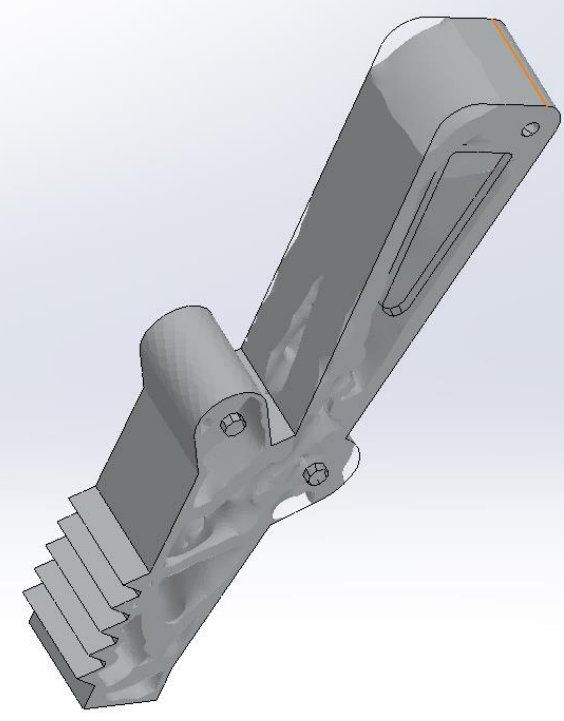
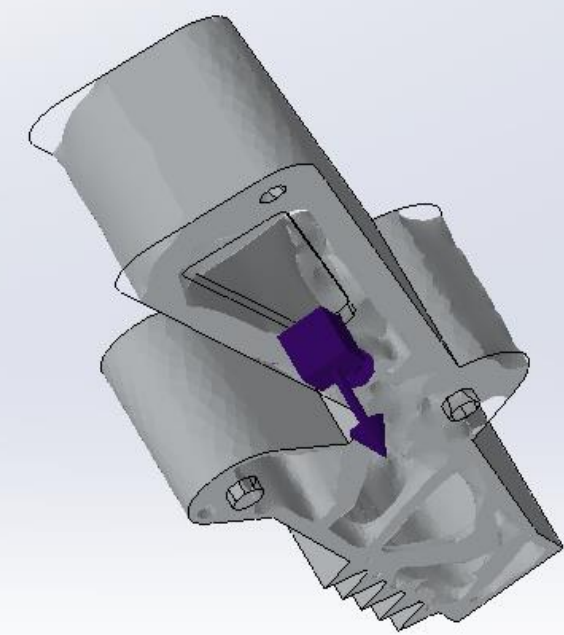
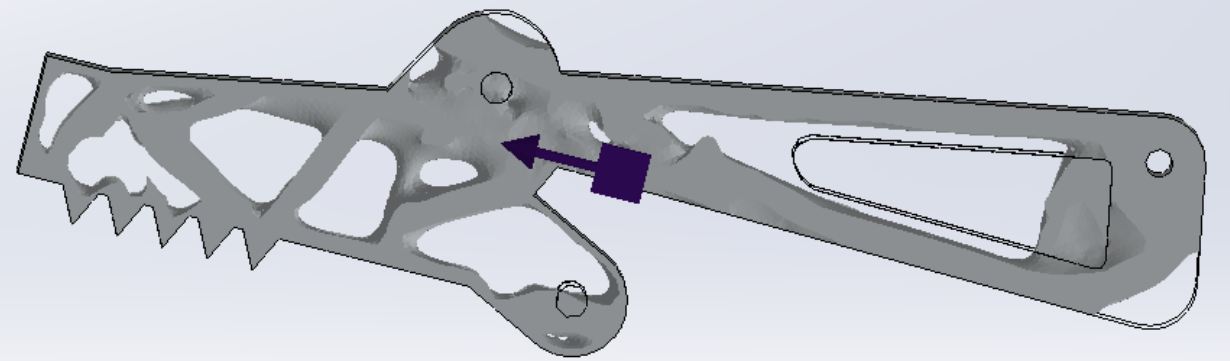
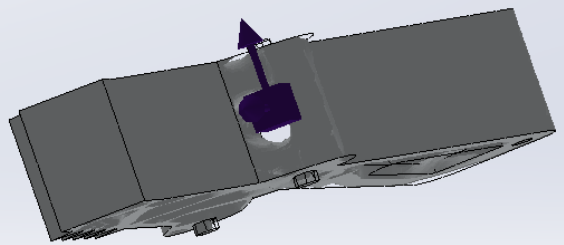
# Create Mesh



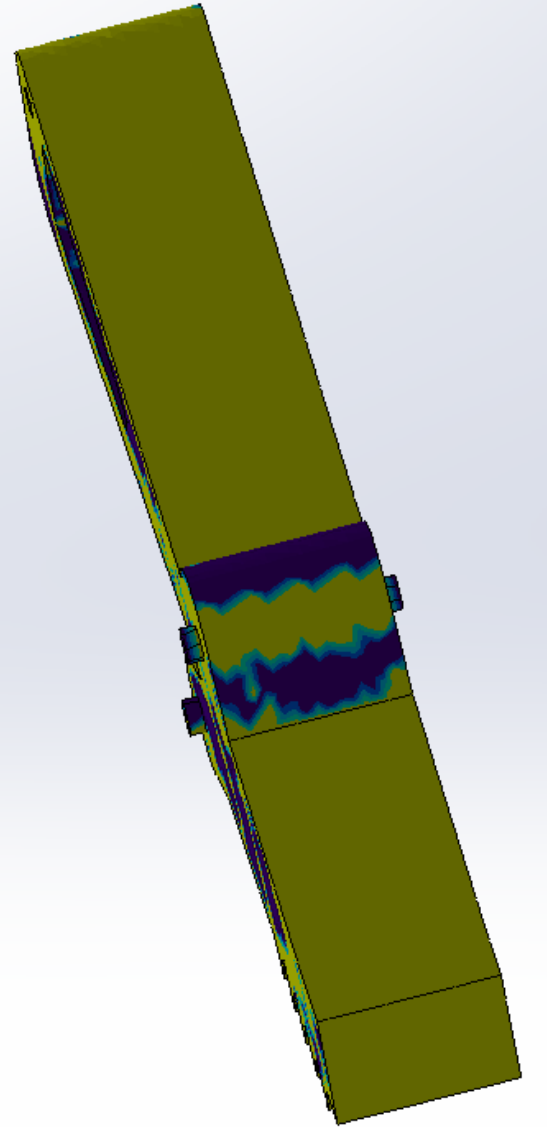
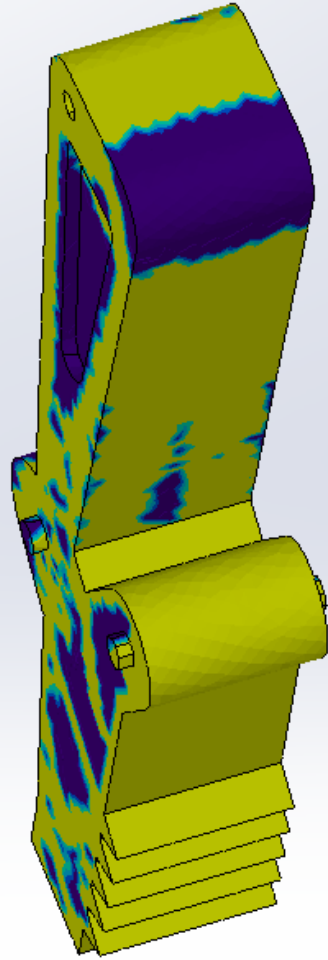
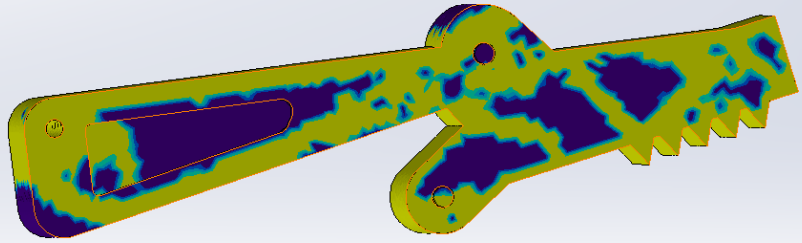
# Create Mesh



# Run and Results



# Run and Results



# Run and Results

