



# ASSISTIVE HOLDER FOR PEOPLE WITH DISABILITIES

Team D4

Mahdi Alajmi

Mohammad Alajmi

Hamad Aldhafeeri

Saud Almutairi



# \*Project Description

## ❑ Main Idea:

- Design a device helps people with disabilities to pick up and hold objects.
- Design a device has multiple ways to use.
- People with disabilities could help themselves.

## ❑ Client:

- Terri Engel

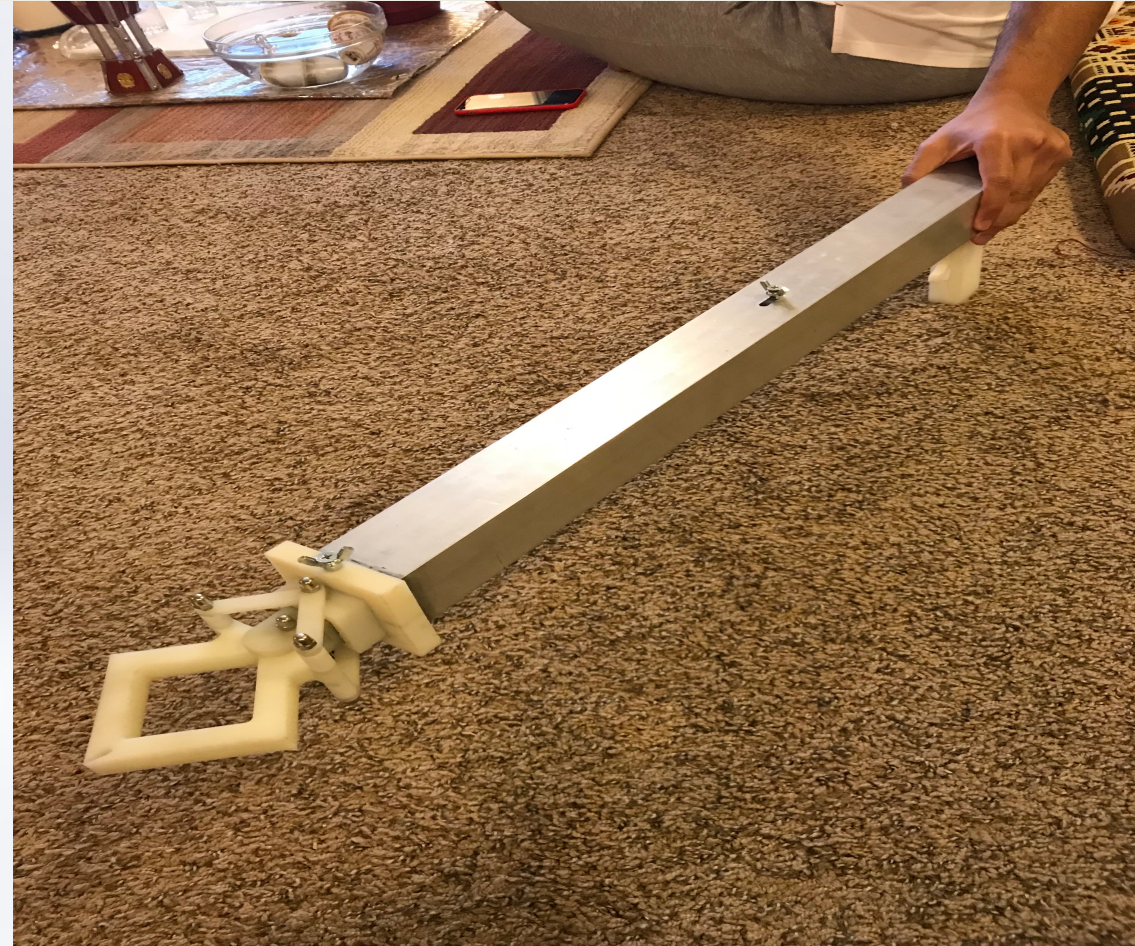
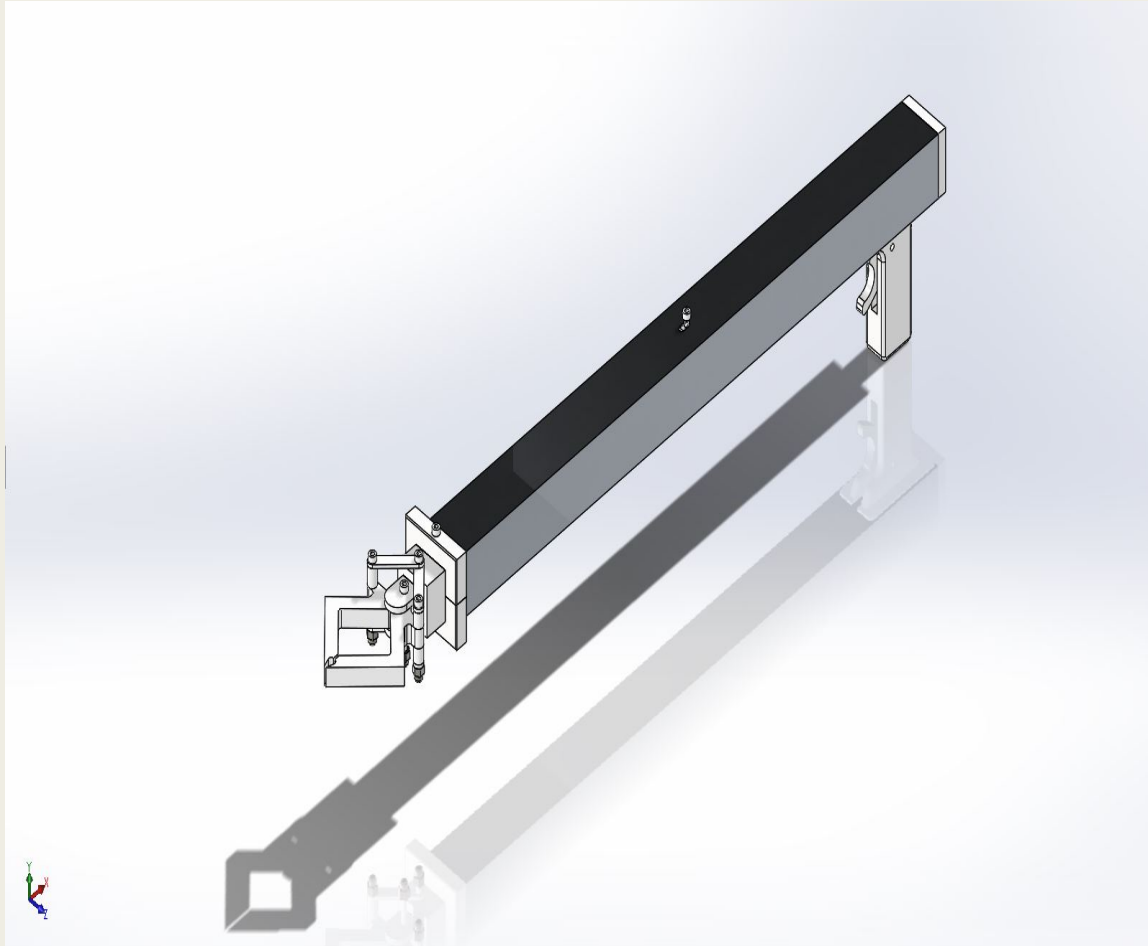
## ❑ Sponsor:

- Hozhoni Art



# \*Project Description

## □ Current Design



# \*Updates

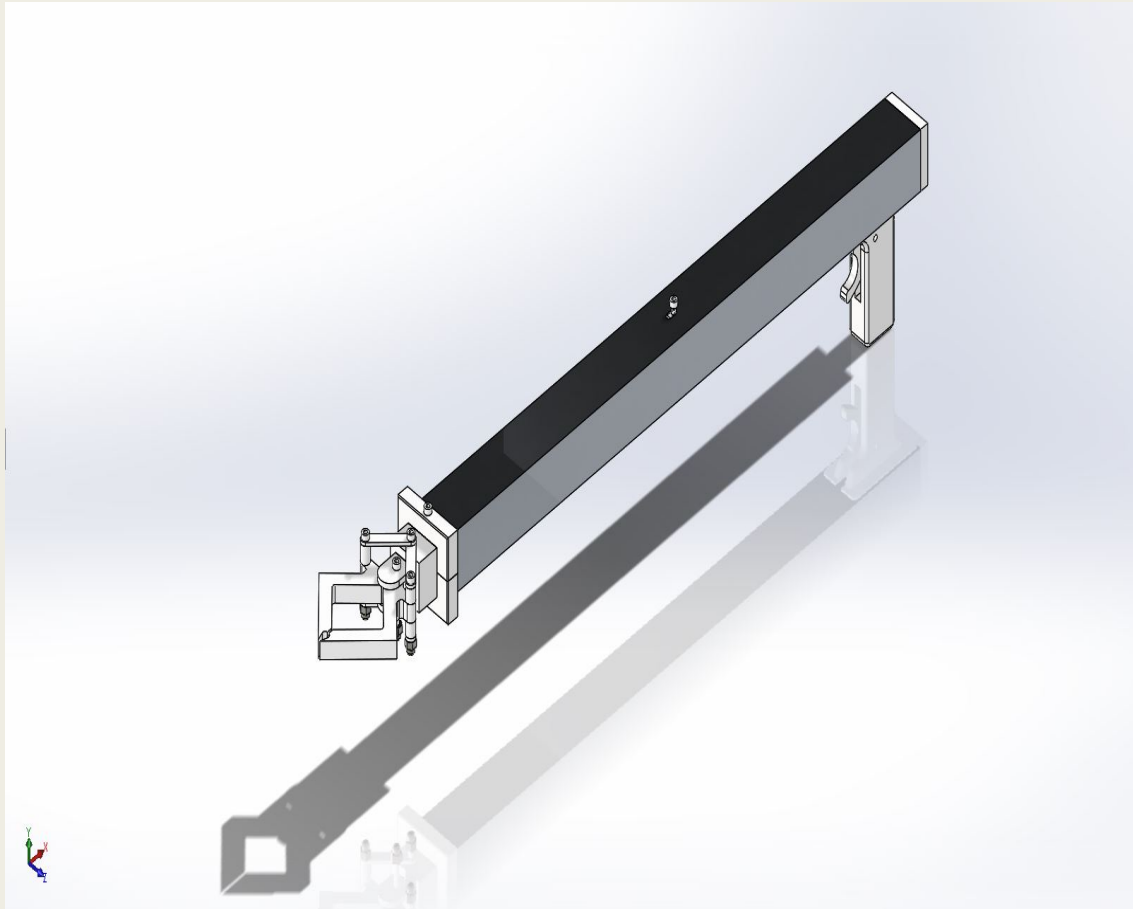
## □ Updates from last presentations:

- Updating CAD design.
- manufacturing parts.
- Updating bill of materials.
- updating our website.
- Research about best materials to use.

# \*Updates

- ❑ changes to the design

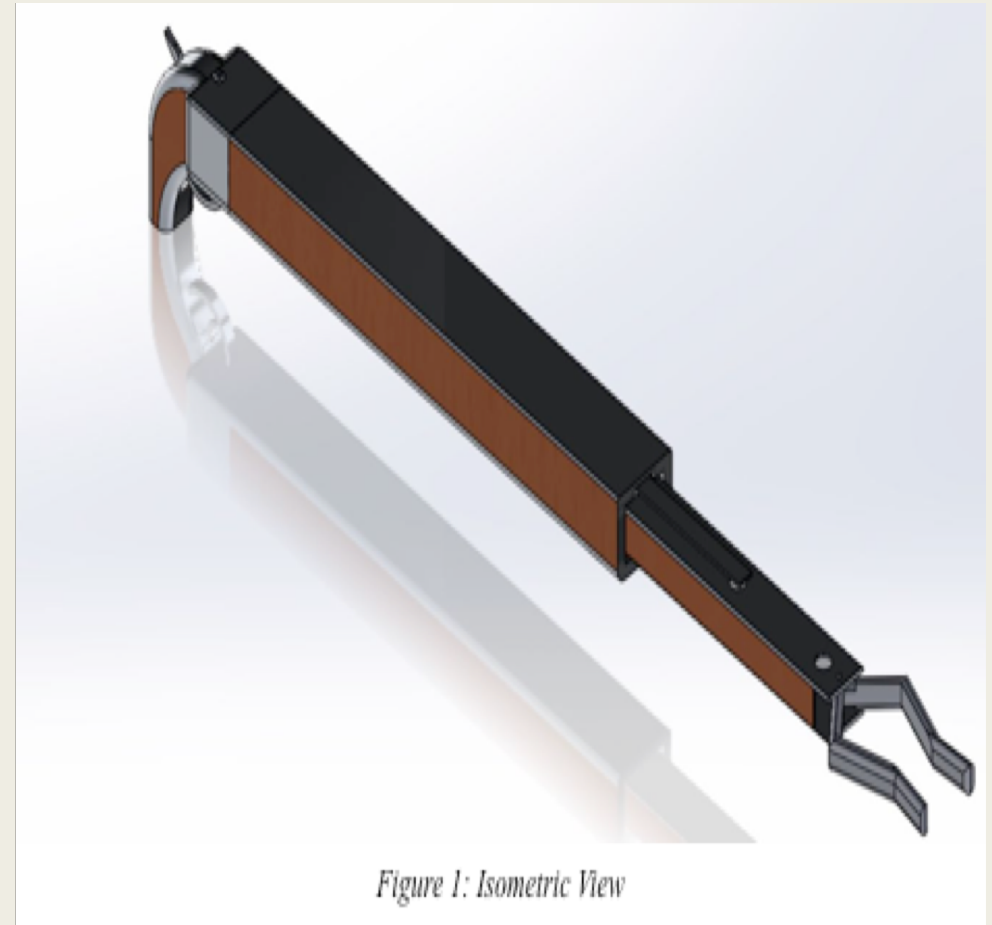
New Design



Team D4 – Hozhoni Art

Mar/13<sup>th</sup>/2018

Previous Design



5-Hamad

# \*Updates

## Cause of changes :

- Controlling length
- Comfortable handle
- Grabber teeth
- Safety system
- The weight

## What left to manufacture :

- Accessories and features

# \*Updates

## □ Analytical Analyses:

- Comparing the materials that we can use.
- Materials weight
- Force
- Friction between inner and outer shaft upon the materials used.

# \*Moving Forward

□ There is no manufacturing is still required.

□ Plans for testing the Design

- Pick up small object
- Test safety
- Test the length and weight
- Test the deployment speed (gravity)



# \*Moving Forward

## Contingencies:

- We have at least two weeks time if we need to redesigns.
- \$200 budget if needed for redesigns.

## Gantt Chart:

- currently on schedule

# Gantt Chart

# \*Moving Forward

		March			April			May			
TASK	NAME	12-Mar	19-Mar	26-Mar	2-Apr	9-Apr	16-Apr	23-Apr	30-Apr	7-May	14-May
<b>Presentation:</b>	Team	In Progress									
<b>Making Slides</b>	Mohammad										
<b>edttng slides</b>	Madhi										
	Saud										
<b>Mid Point Report</b>	Team										
<b>edit Last semester report</b>	Hamad										
<b>Follow comments for last semester report</b>	Mohammad										
<b>Hardware Review 2&amp; summary</b>		Needs to be started	Needs to be started								
<b>Register for UGRAD</b>	Mohammad		Needs to be started								
<b>Testing</b>	Team			In Progress	In Progress						
<b>Final Testtng prof</b>	Team					Needs to be started					
<b>Ugrad practice</b>	Team						Needs to be started				
<b>UGRADS</b>	Team							Needs to be started			
<b>Final Report</b>									Needs to be started		
<b>work on Report</b>	Mohammad								Needs to be started		
	Saud								Needs to be started		
<b>edit and review report</b>	Mahdi								Needs to be started		
	Hamad								Needs to be started		
<b>Final CAD</b>	Team								Needs to be started		
<b>Legend</b>											
Completed		Completed									
In Progress		In Progress									
Needs to be started		Needs to be started									

# \*Moving Forward

## Budget :

- Total Dollars : \$2000
- anticipated expenses : \$400
- actual expenses : \$600
- resulting balance : \$1400

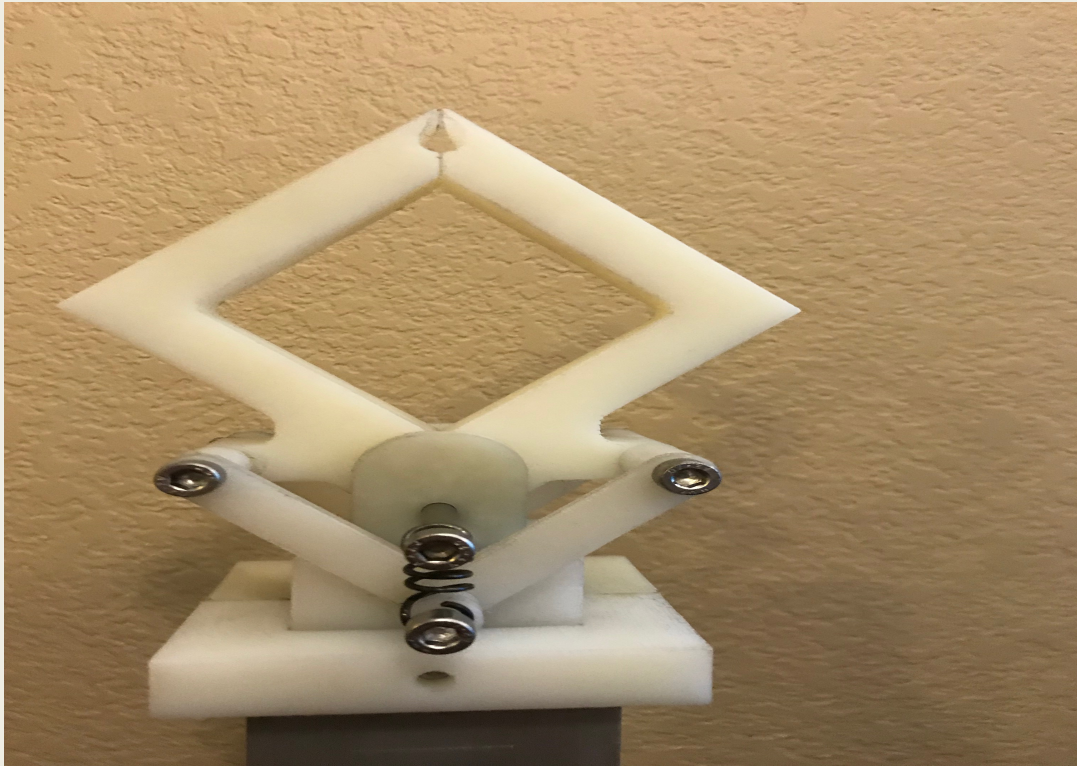
## Changes from last presentation:

- Estimate budget was \$300-\$400



# \*Hardware Review 2

- ❑ Our Device is 99% complete
- ❑ Still needs some accessories



Team D4– Hozhoni Art

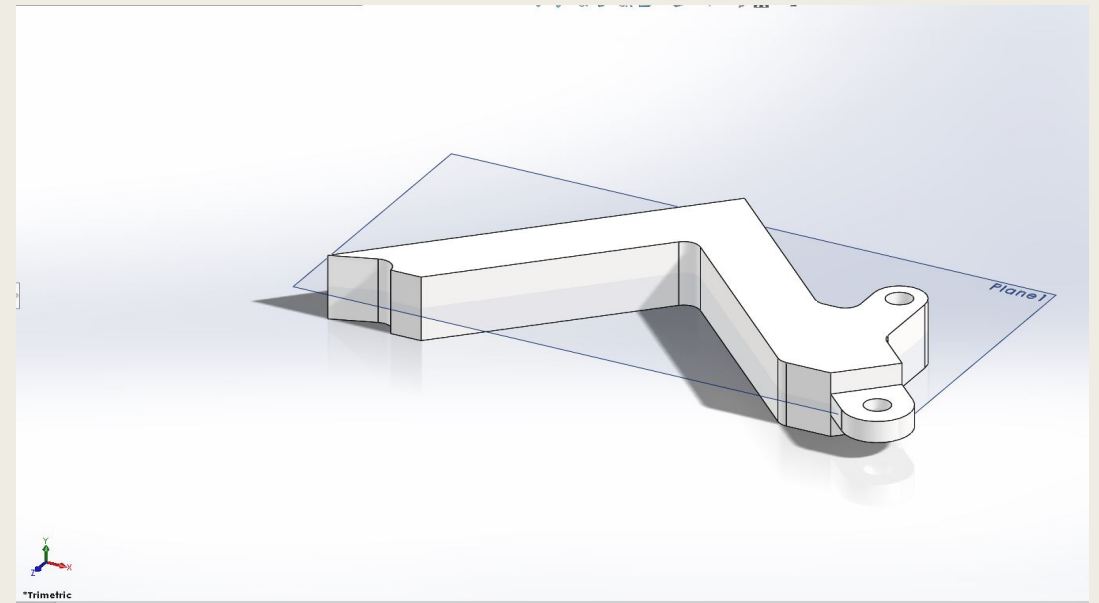
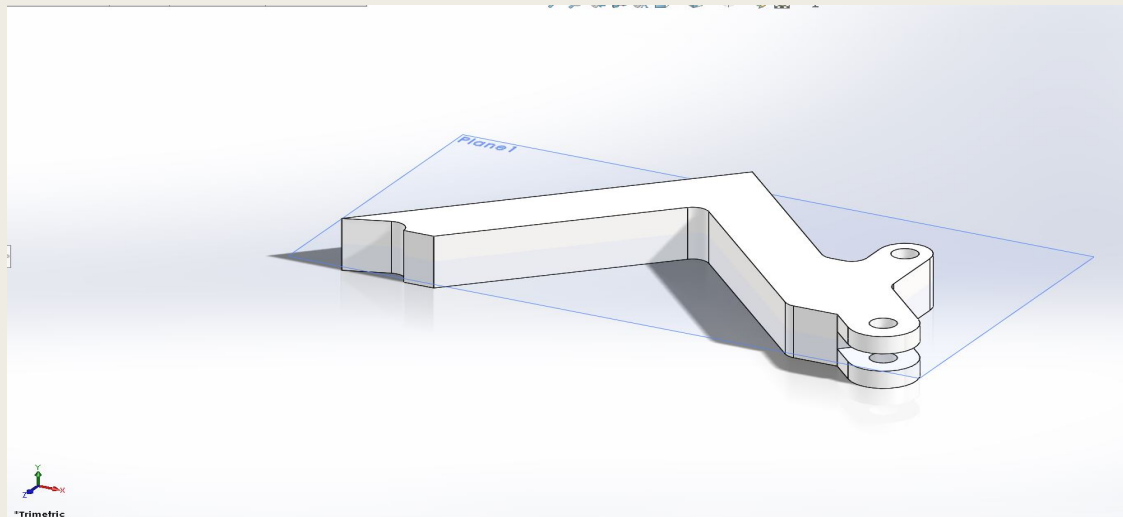
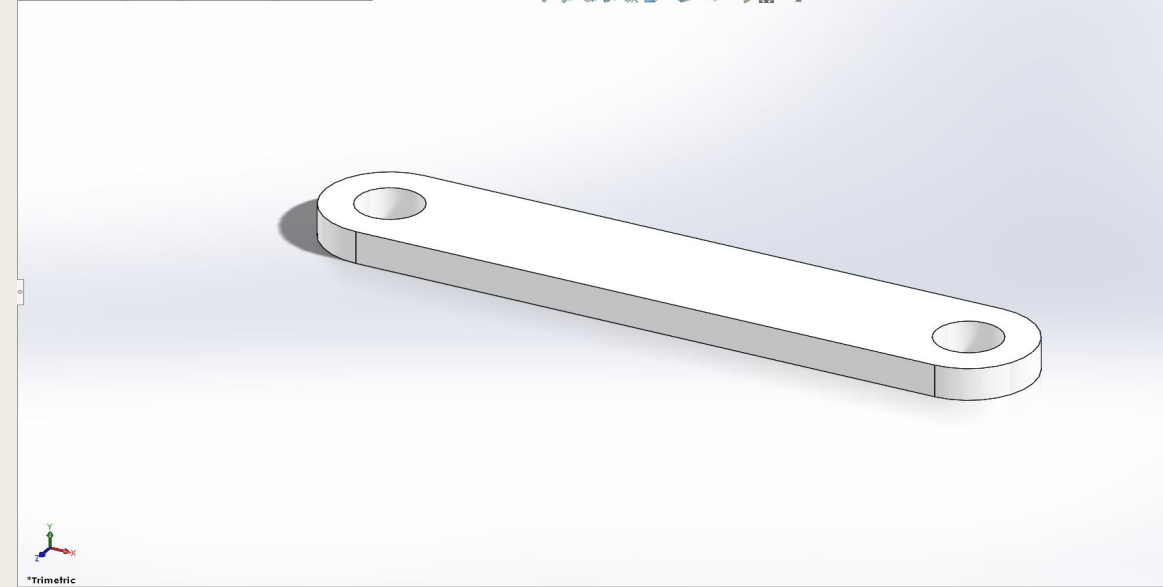
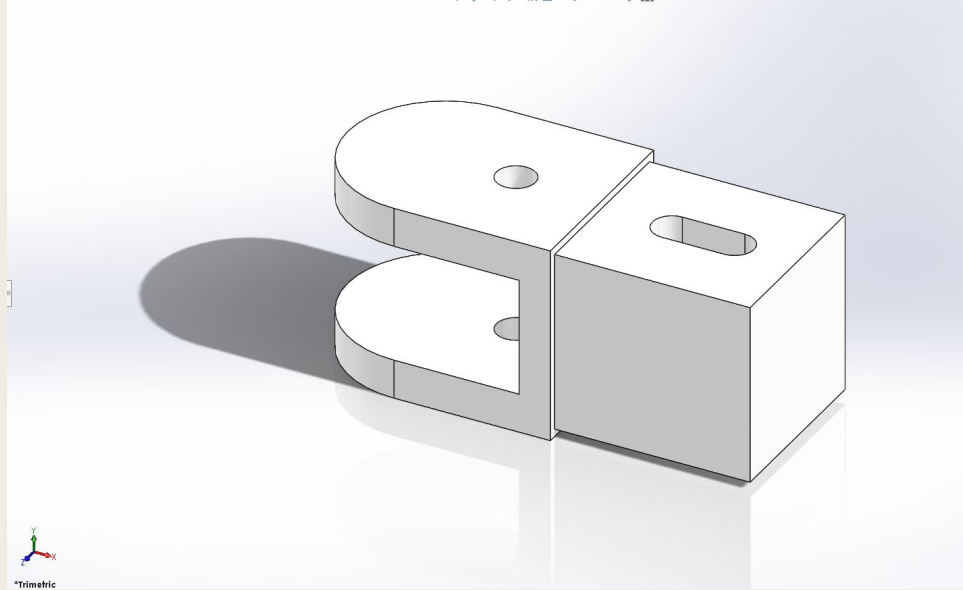


Mar/13<sup>th</sup>/2018

12-Mahdi&Mohammad

# \*Hardware Review 2

## ■ How The system works:



# \* Demonstration



**\*Thank you**

**Q/A**