



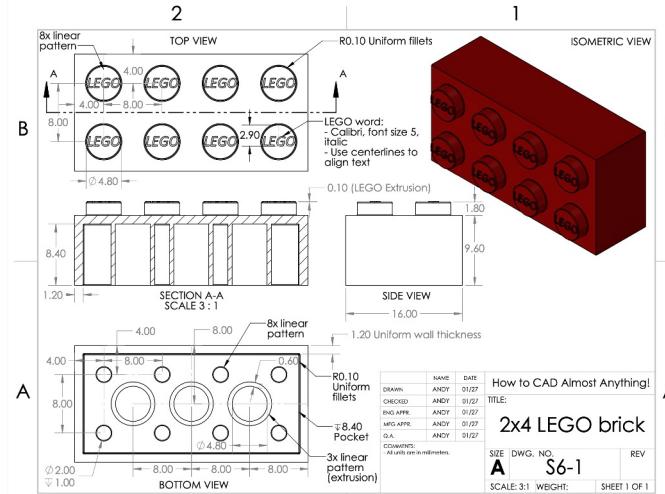
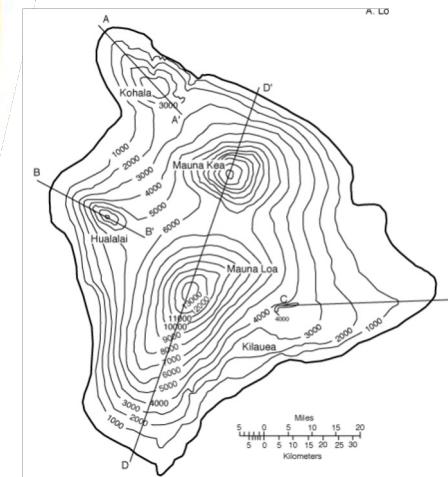
# How to CAD almost anything!

MIT HSSP – Spring 2024

Instructors: Andy & Nat



## Week 5



# Agenda

- Questions?
  - Anything remaining from Session 3?
- Session 5:
  - Demo of the session's Fusion 360 commands:*assemblies, drawings, exploded views and animations.*
  - Demo of projects: Lego 2x4 brick (and drawing), 20x20 plate, and Lego house!
- Questions?
- The journey ahead!



# Questions?

Any lingering questions from last week? Anything in particular you would like us to review again?



## Session 1:

- Sketches
- Features
- Coloring parts

## Session 3:

- Patterns
- Planes
- Revolve
- Mirroring

## Session 2:

- Splines
- Sketch pictures

## Session 4:

- Loft
- Sweep
- More planes

## Session 5:

- Assemblies
- Drawings
- Exploded Views
- Animations

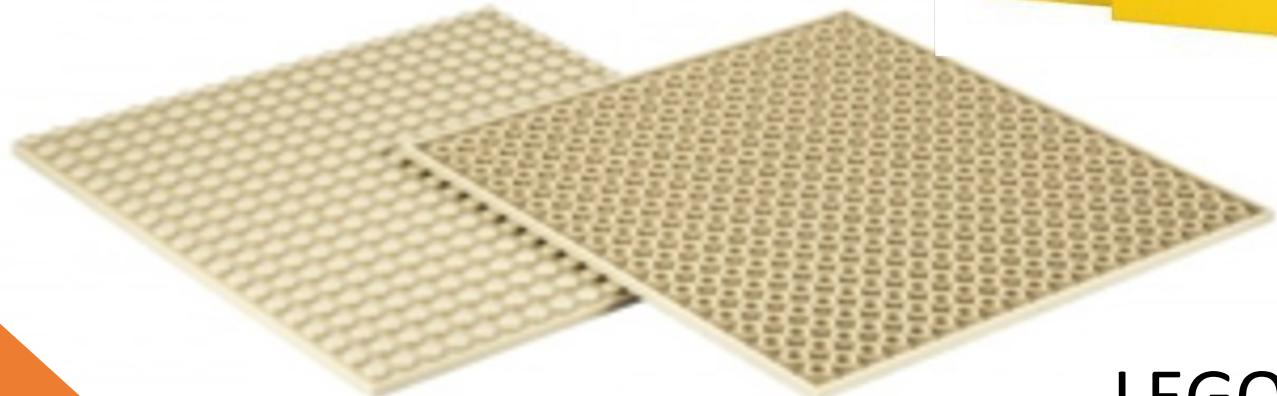
Progress in the saga: we have collected the 1-, 2-, 3- and 4-star Dragon Balls, and today we'll find the last one, the 5-star!



# Session 5



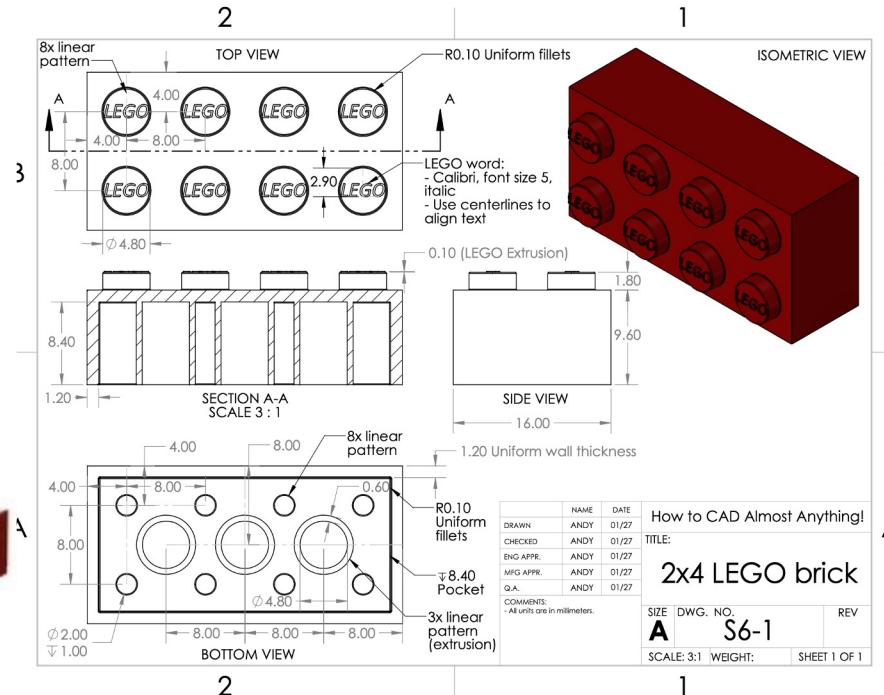
LEGO  
2x4 brick



LEGO 20x20 plate

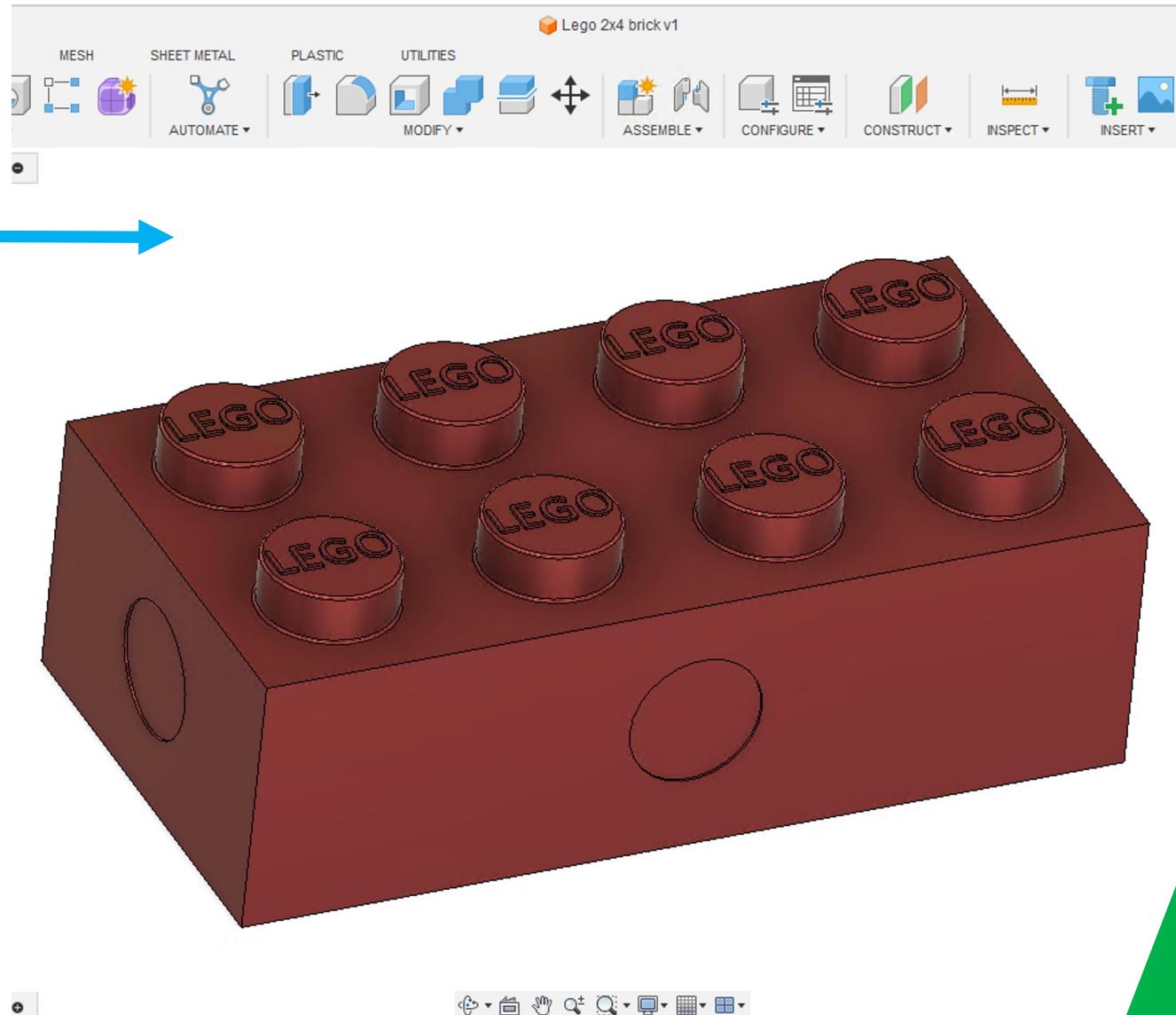
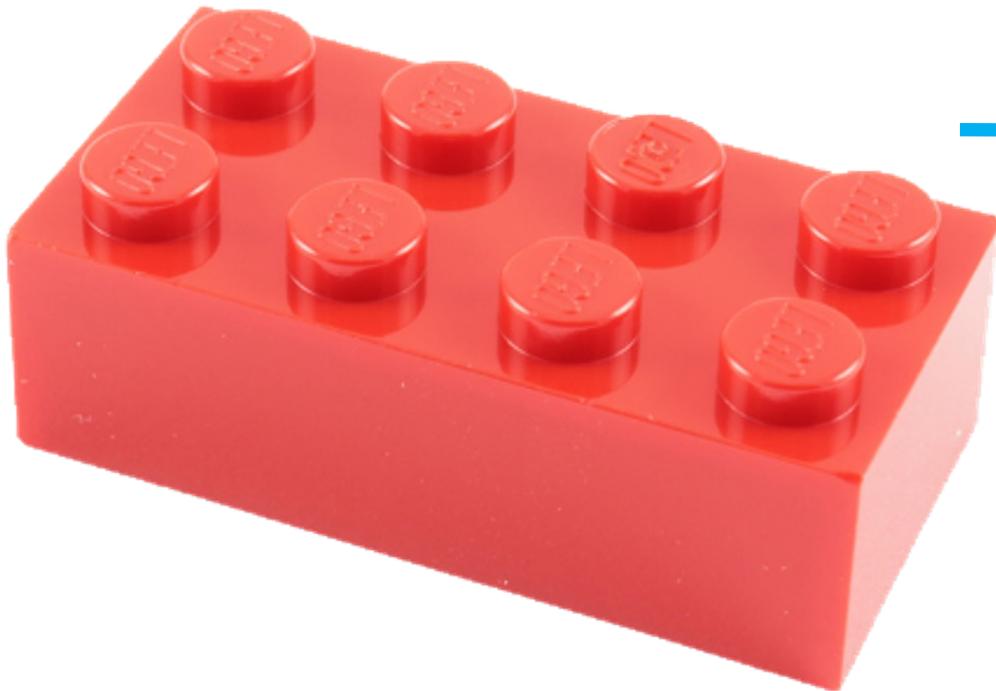


LEGO Brick Drawing

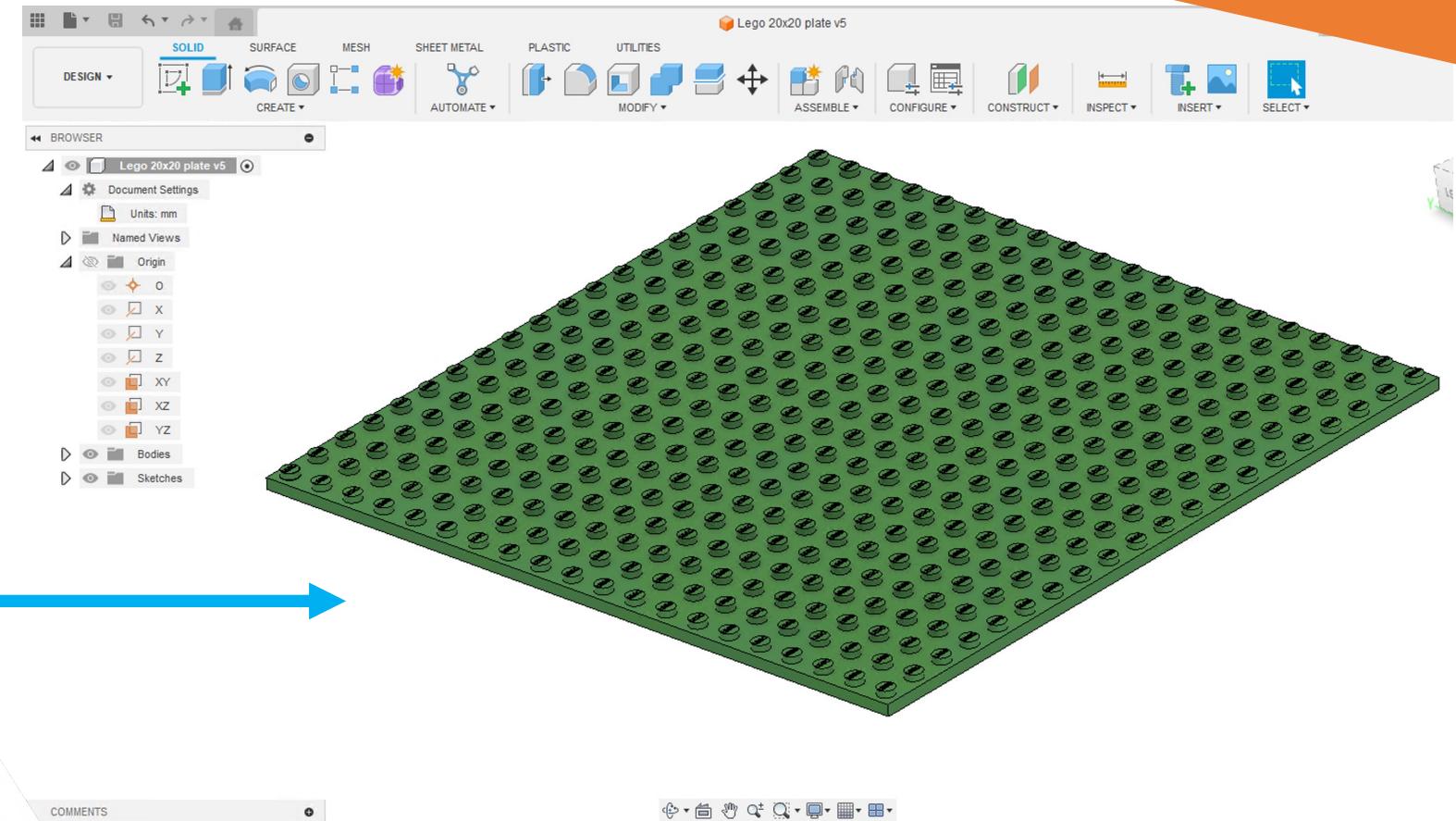
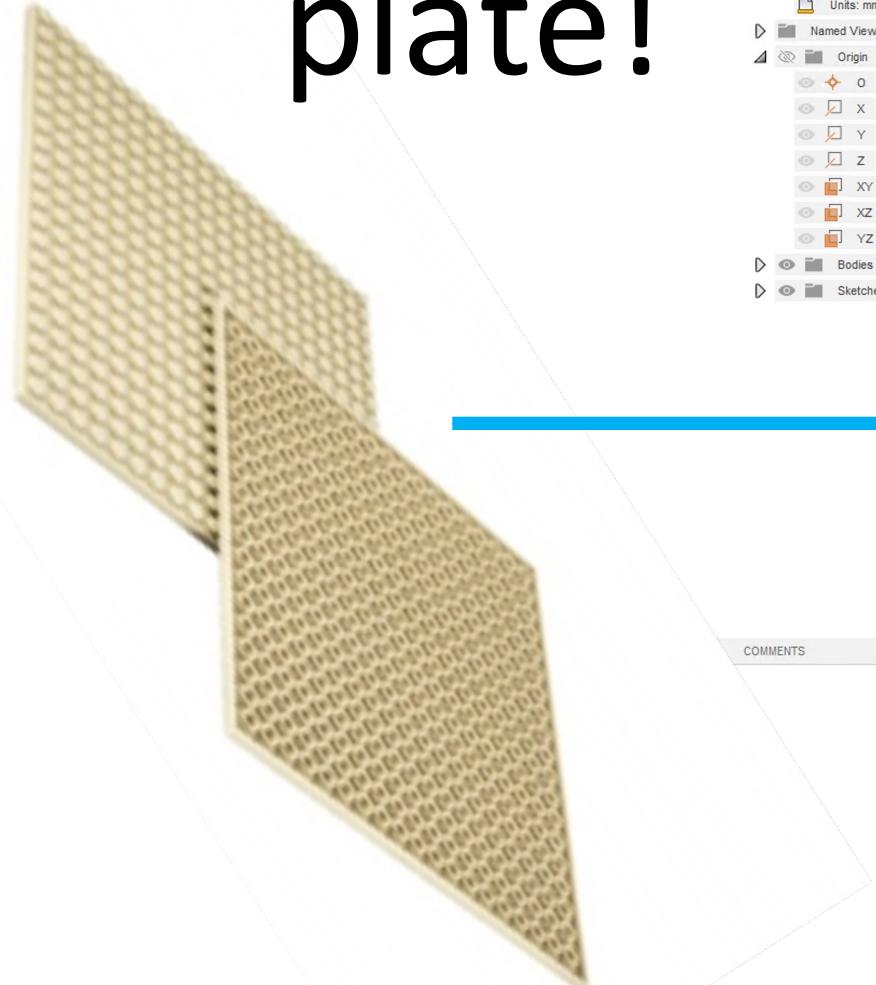


LEGO house!

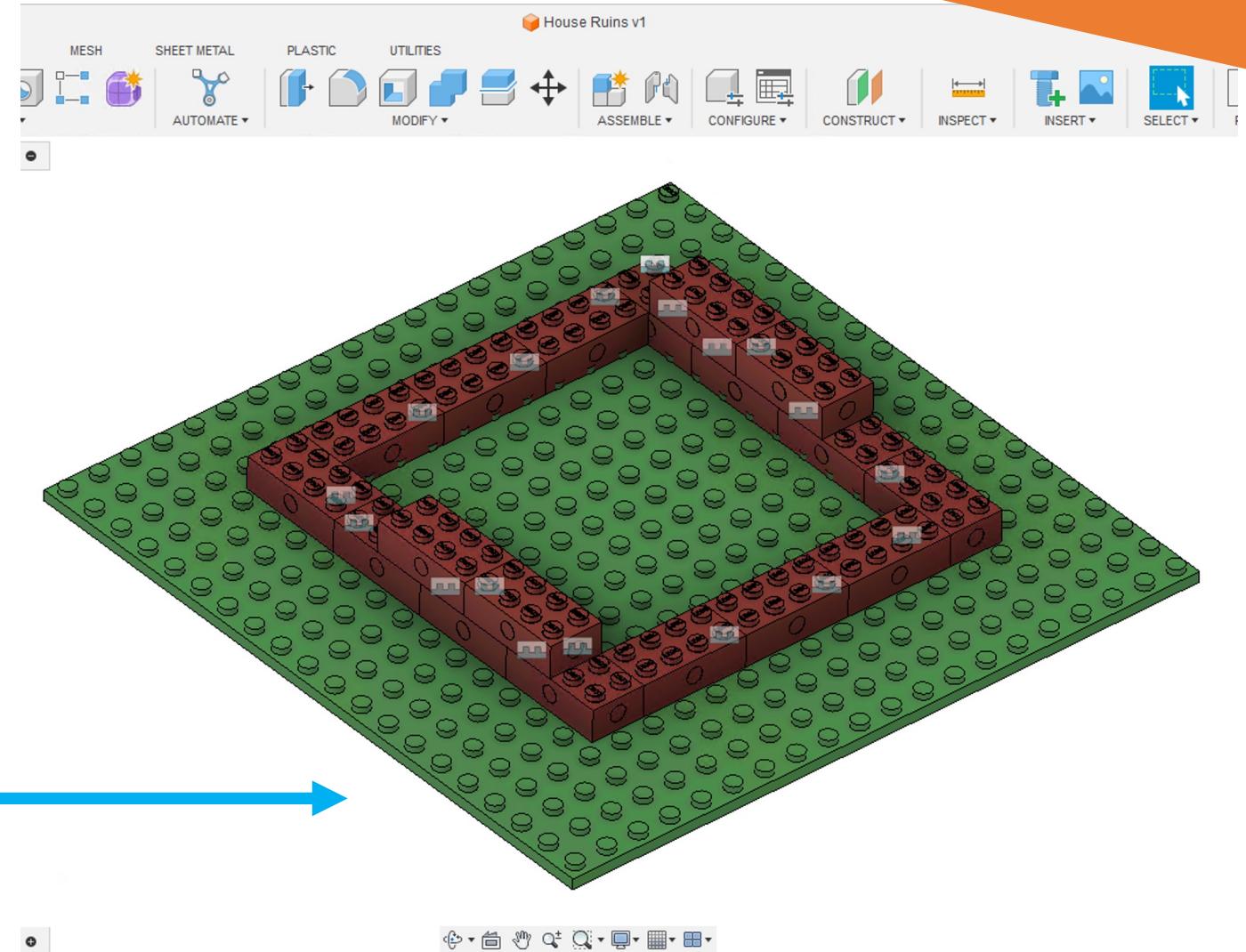
# Lego 2x4 brick!



# Lego 20x20 plate!

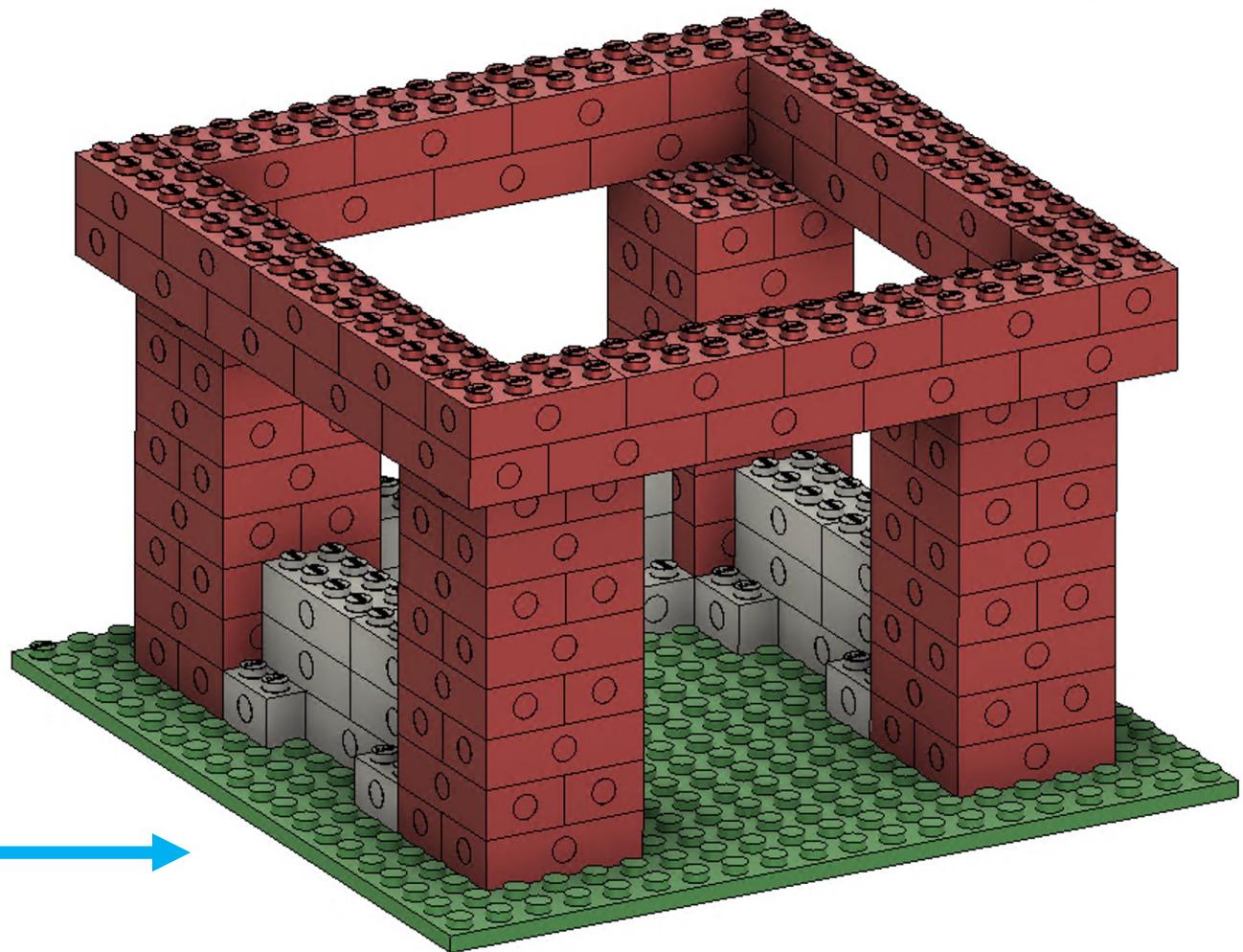


# Lego house!



LEGO house ruins...

# Lego house!



LEGO house shrine!

# Questions?

Feel to send us an email anytime  
during the week if you have any  
questions!



# The journey ahead!

MIT OpenCourseWare

GIVE NOW

ABOUT OCW HELP & FAQS CONTACT US

RES.16-002 | January IAP 2024 | Non-Credit

## How To CAD Almost Anything

**Course Description**

Have you ever wondered how objects from our daily lives are designed? How can we generate a computer 3D model of a mug, a bottle of Diet Coke, or a Saturn V rocket? What about designing the blades of a jet engine? A test dummy? How about making an animation of a LEGO house building itself? Or making a realistic render of a bowl of fruit? In this workshop, you will learn skills to design all these and much more!

Split into nine sessions, this workshop introduces CAD (Computer Aided Design) using the parametric modeling software SolidWorks, through various fun examples focused on reverse engineering. In contrast to traditional mechanical design courses, this workshop emphasizes the design process itself, understanding how we can plan and best leverage our available tools to arrive at our desired result. Thus, the sessions are less about following the instructions on an engineering drawing, and more about independent thinking and strategizing, reverse engineering an object into a 3D model.

Come and learn how to CAD almost anything!

This supplemental resource offers links to the class's [website](#) and [workshop materials](#) as well as a companion playlist of [session recordings](#) on YouTube.

Show less

**Students in this workshop learned basic CAD skills and reverse-engineering of an object into a 3D model.**

Come take the summer version  
of this class (on Onshape)!



## Certified SOLIDWORKS Associate in Mechanical Design

The CSWA certification is proof of your SOLIDWORKS® expertise with cutting-edge skills that businesses seek out and reward.

[Take the Exam](#) [Sample Exam \(ZIP\)](#)

## Recommended Training Courses

onshape

WHY ONSHAPE PRODUCT ▾ PRICING INDUSTRIES ▾ RESOURCES ▾

## Onshape for Education

HOME CREATE AN ACCOUNT COURSES & CURRICULUM PLANS EDUCATION PROGRAMS ▾

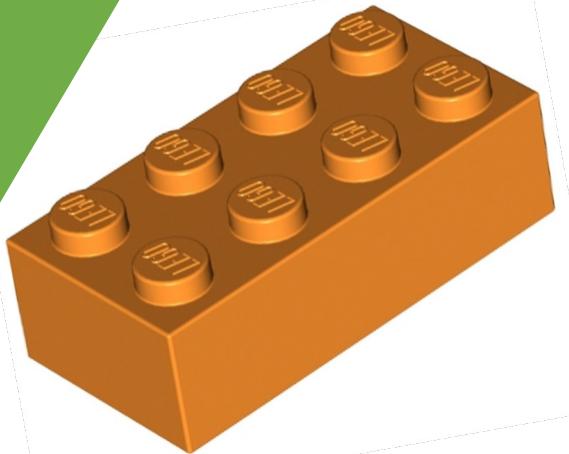
### Student Resources

To start learning Onshape, create an account and click on any of these resources to help you get started in our learning center, for free.  
If you are an educator, [click here to Jump to Educator Resources](#)

TECH TIPS



**“Jacket on, jacket off!”**



# The end!



# How to CAD almost

# anything!

# MIT HSSP '24

