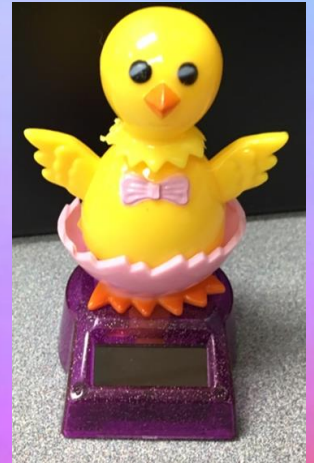
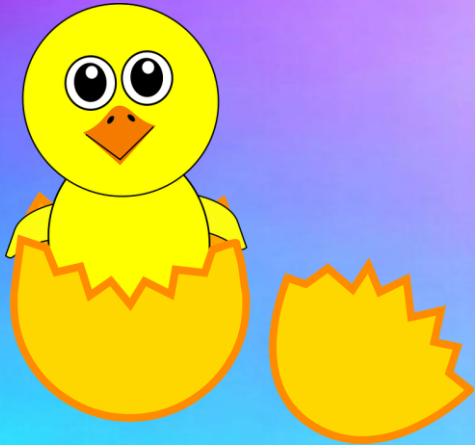


Solar Panel Chicken Reverse Engineering

Alliana & Jalah



Visual Analysis

 Description - Some points with curved and straight lines

Color is yellow, orange, pink, purple, black and white

Shape - circular head oval body curved wings pointy feet

Form - hollow plastic

Texture - smooth plastic

Functional Analysis

- The chicken operated by the solar panel which converts sun rays into energy. The energy is stored in the battery. Then powers copper wires in other words magnetizes them which then moves the axle with the magnet. The axle with the magnet moves the other axles that then move the chicken body and the head in a slow back and forth motion.

Structural Analysis

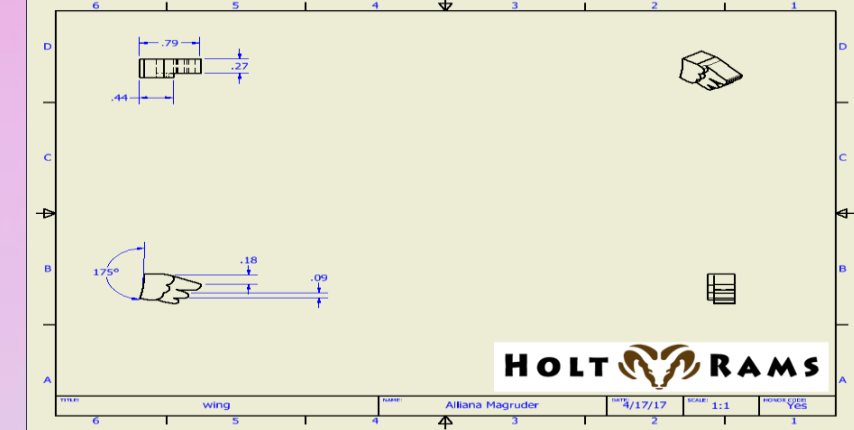
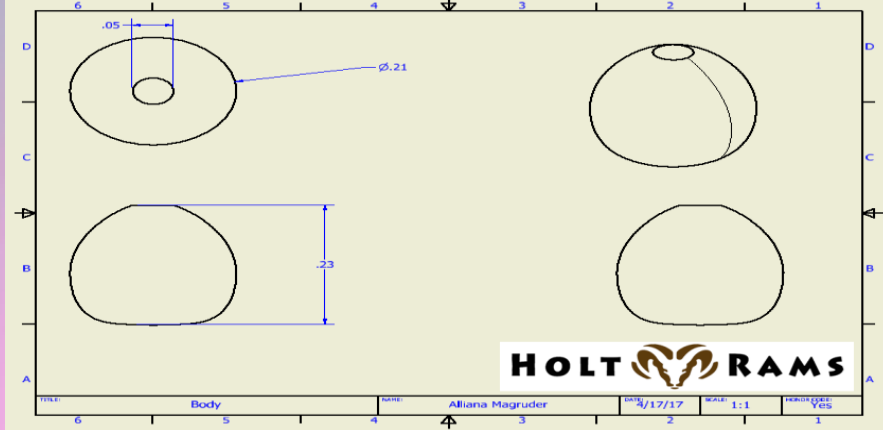
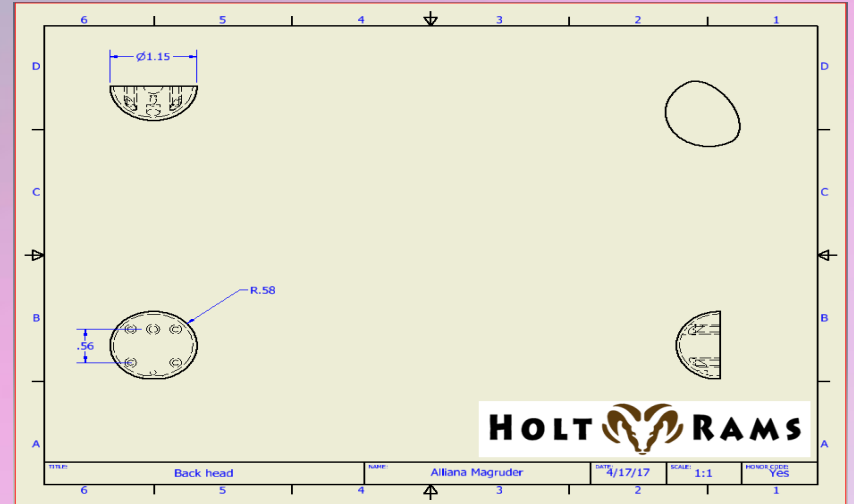
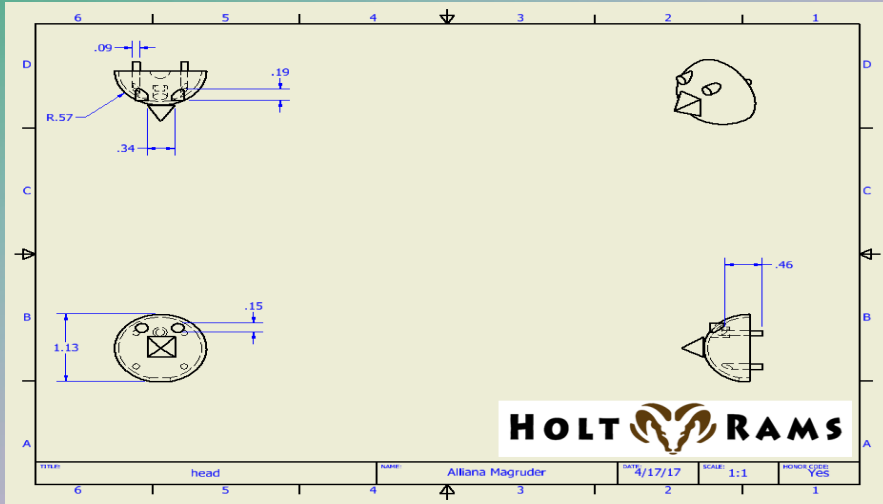
Disassembly Chart

part	name	qty	Dimensions In inches	function	material	mass	texture	interaction
1	Solar base	1	H-0.875 W-2.27	Protects battery & panel	plastic	14g	smooth	Holds others in place
2	feet/egg	1	H-0.803 W- 1.93	decoration	plastic	4.4g	Smooth Feet pointy	Holds axle
3	body	1	H-1.15 W-1.46	Moves side to side	plastic	4.8g	Smooth bumpy wings	Holds axle
4	head	1	H-1.213 W-1.28	Moves side to side	plastic	3.7g	Smooth head pointy nose	Holds axle

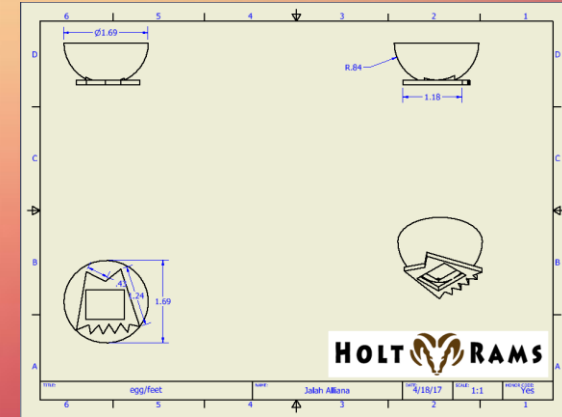
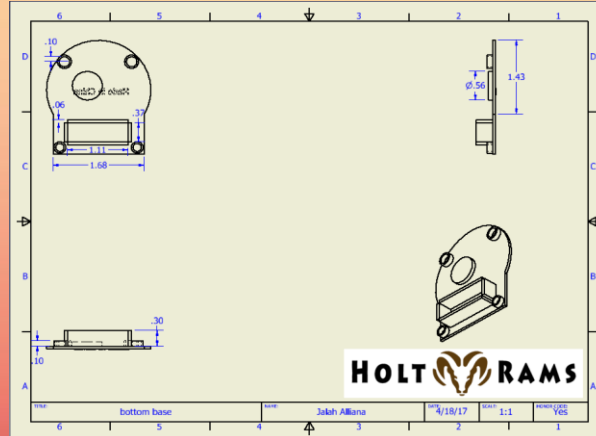
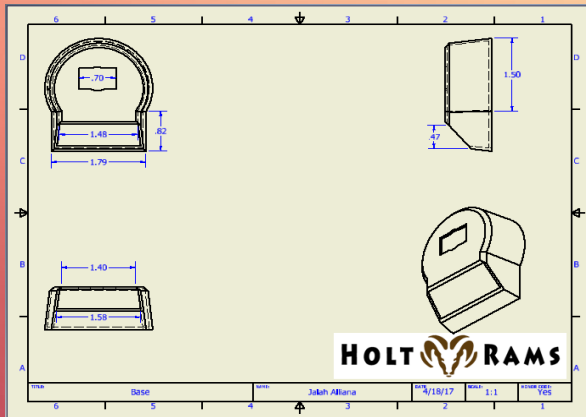
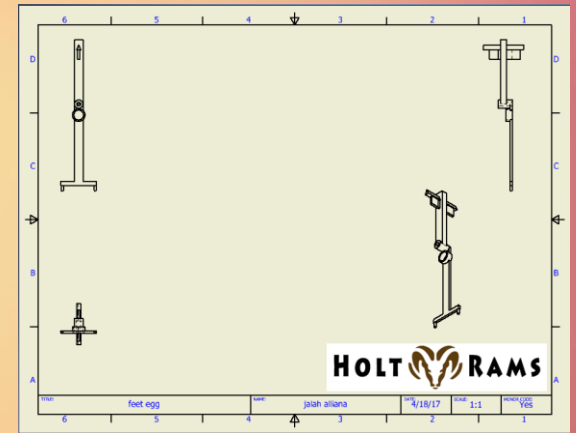
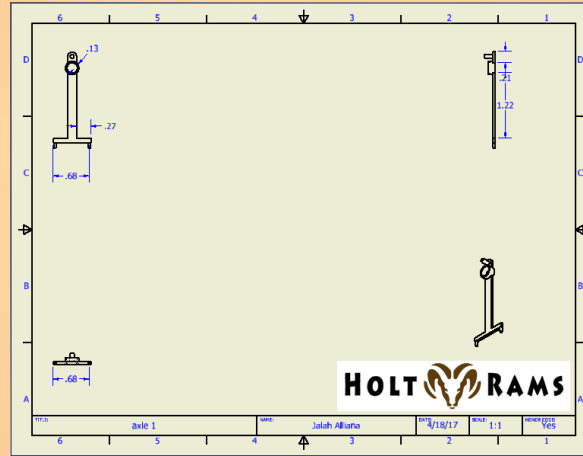
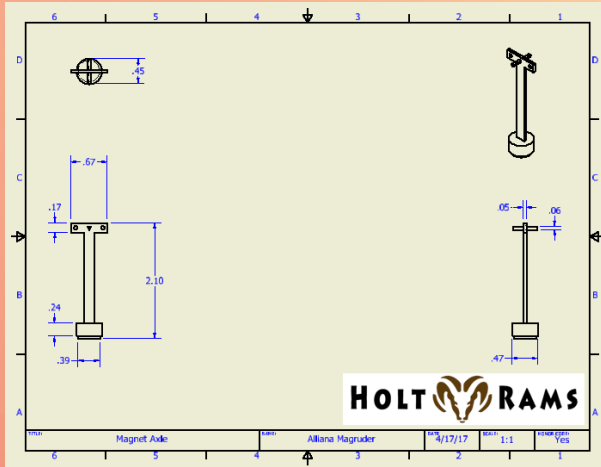
Structure analysis

part	name	qty	Dimensions In inches	functions	material	mass	texture	interaction
5	Axle 1	1	H-3.121 W-0.111	Helps move chicken	plastic	0.9g	Ridges and bumps	Keeps everything in tack
6	Axle 2	1	H- 1.727 W-0.164	Helps move chicken	plastic	0.5g	Ridges and bumps	Moves with others
7	Axle with magnet	1	H-2.082 W- 0.215	Helps move chicken	Plastic magnet	2.5g	Ridges and bumps	Moves above base
8	Battery & Panel	1	H-0.29 W-1.16	Powers chicken	Metal wires	1.8g	Round P sharp edges	Powers the others

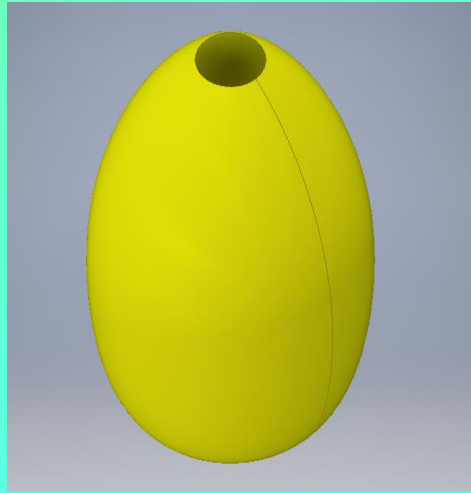
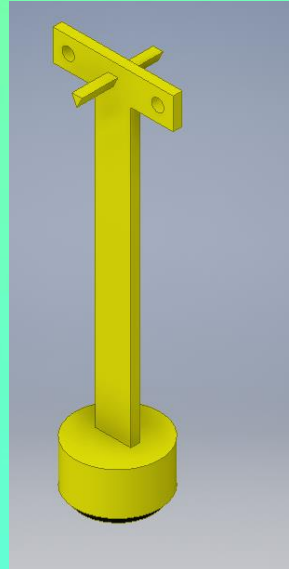
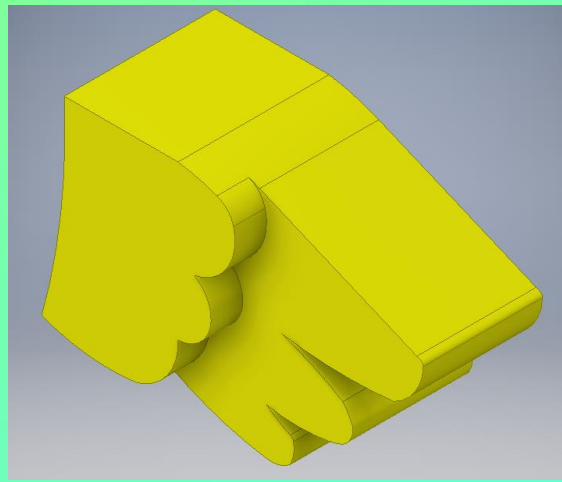
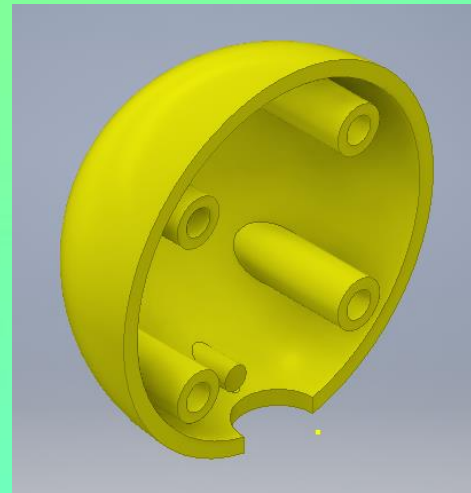
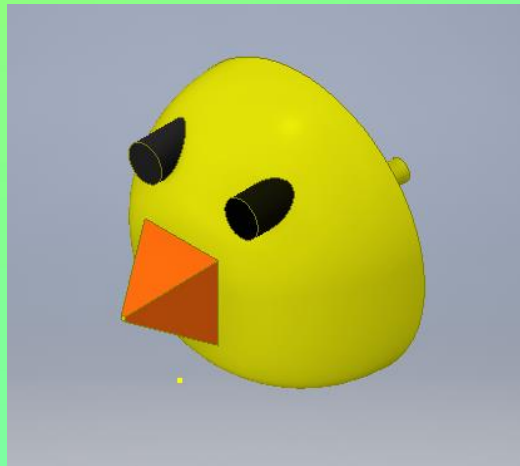
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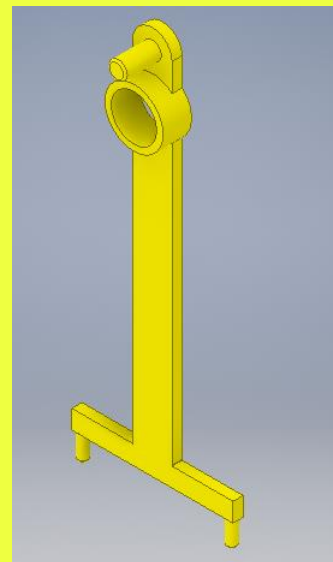
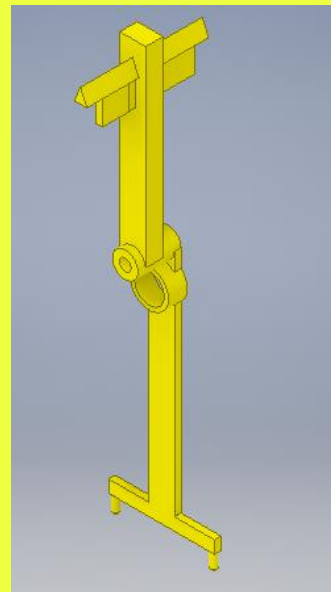
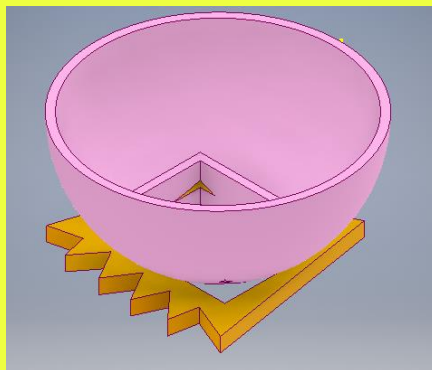
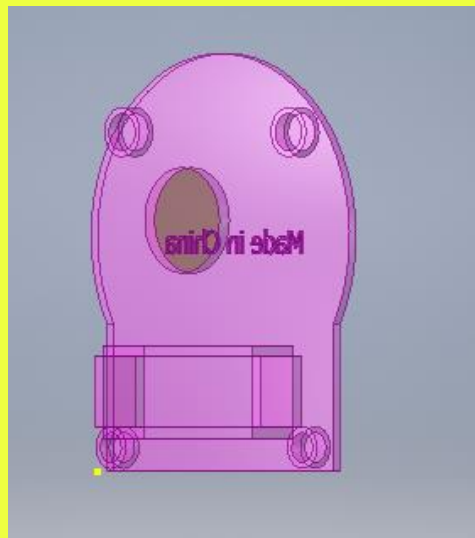
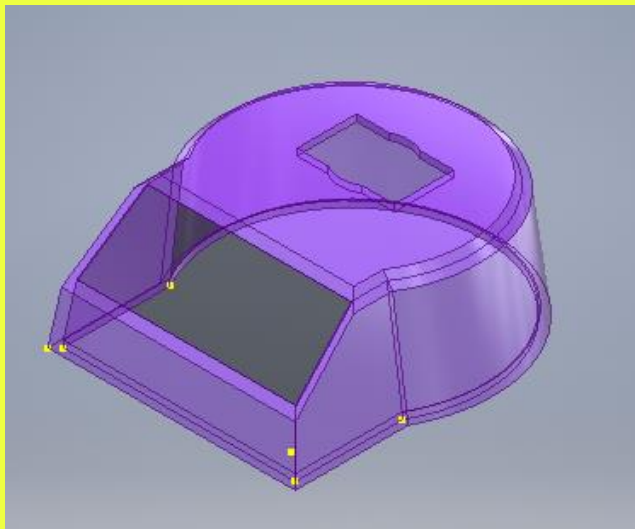
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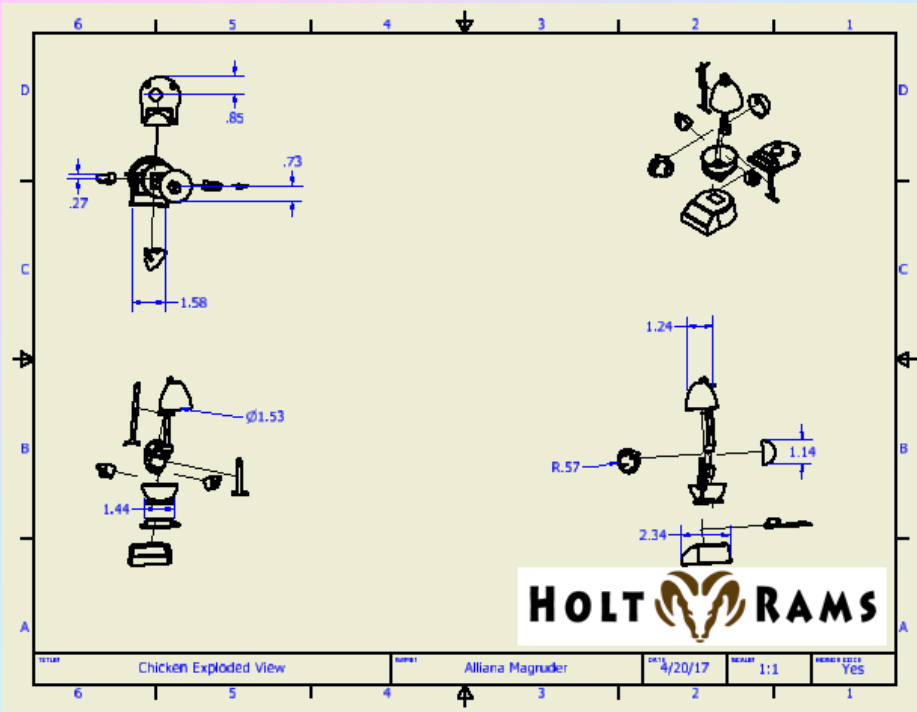


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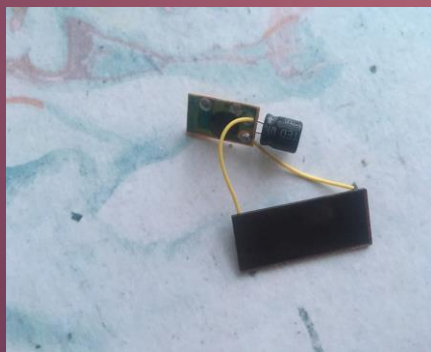
<https://www.youtube.com/watch?v=0cjOCccNNNY>

Assembled chicken



Actual Pieces





Conclusion

1. Is there another reason for product disassembly besides the modeling and electronic documentation of parts? To understand how it works and how each part functions.
2. Explain the process used to complete a mass property analysis, explain why this process is commonly used in industry. Finding the weight surface area volume etc for the part.
3. Describe how important it is to have good interpersonal communication skills in a technically related field, such as engineering design. To be able to communicate with others about what you discovered and for them to tell you what they have discovered.
4. Think about the “Little Device Lab”...propose some ideas of your own about how some of the mechanism in your device could be “harvested” for other uses. Using the solar panel and the cooperwires and battery to power other things.