



Morning Session - 11472

CAD with Autodesk Inventor

(10 minutes)

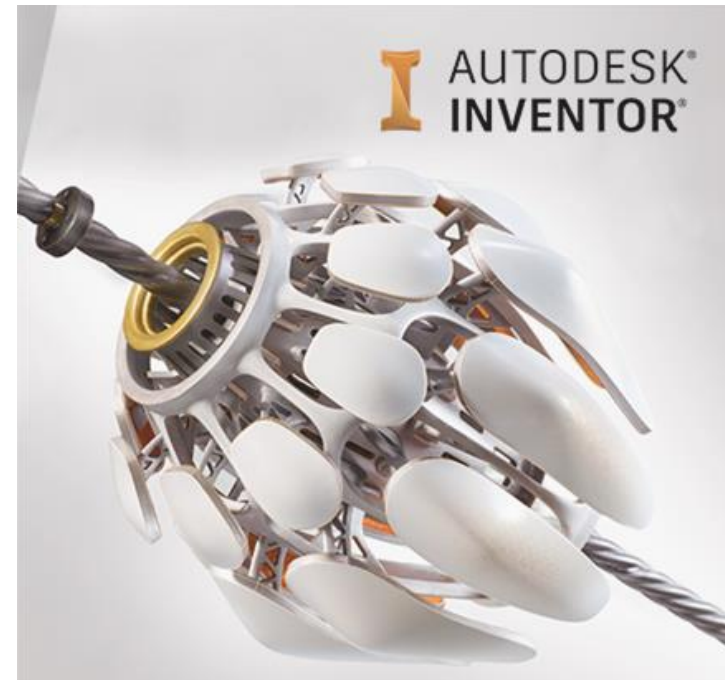




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- Autodesk Inventor provides engineers and designers a professional grade solution:
 - 3D mechanical design
 - Simulation
 - Visualization
 - Documentation





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- Autodesk Inventor allows engineers and designers to create:
 - Drawings
 - Parts Lists
 - Presentations

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	Train Body	Tan wood
2	1	Hitch Magnet	Black Wood
3	1	Hitch Peg	Blue Steel
4	4	Wheel	Green Wood
5	4	Axel Peg	Yellow Steel
6	2	Linkage Arm	Gray Steel
7	4	Linkage Peg	Yellow Steel
8	1	Cow Catcher	Gray Steel
9	1	Stack	Black Steel

Introduction to Engineering Design	Class: IED	Name: Jacquelyn	Period: Alcaraz	Title: Train	Project: Toy Train
Basha High School Mr. Tomaszewicz	Date: 12/12/16	File Name & Path: Assemble.iam			





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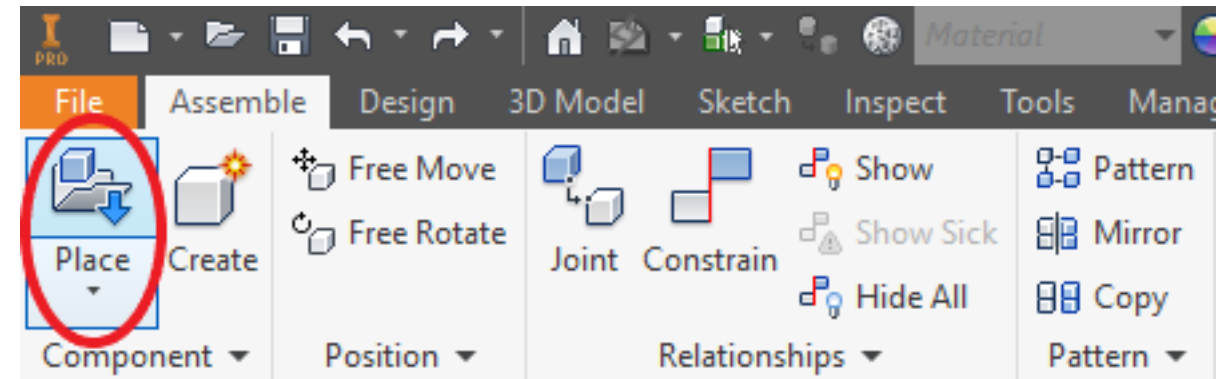


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Advantages of Inventor

- Upload premade parts
- Open source cad
 - Grabcad
 - 3D content central
- Place parts in assembly

GRABCAD



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Advantages of Inventor

- Extensive options allow for precisely detailed builds with custom features
- Plano ISD engineering classes use Inventor



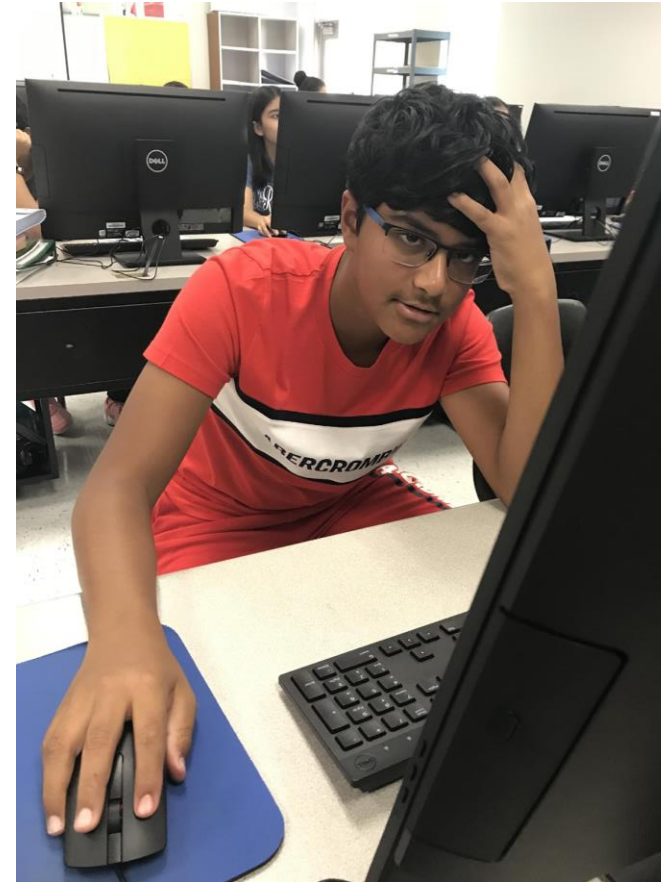
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Disadvantages of Inventor

- Complex software can be difficult to learn
- Expensive to purchase
- Some features are not needed for FTC



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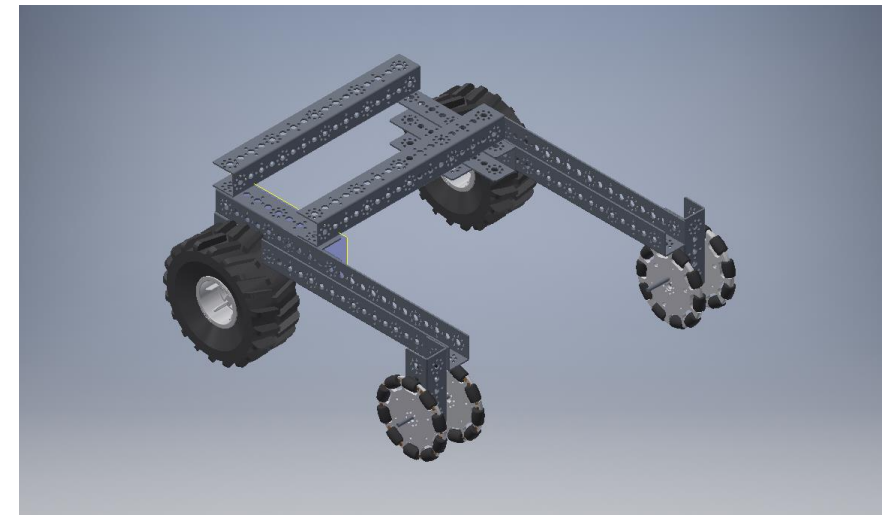
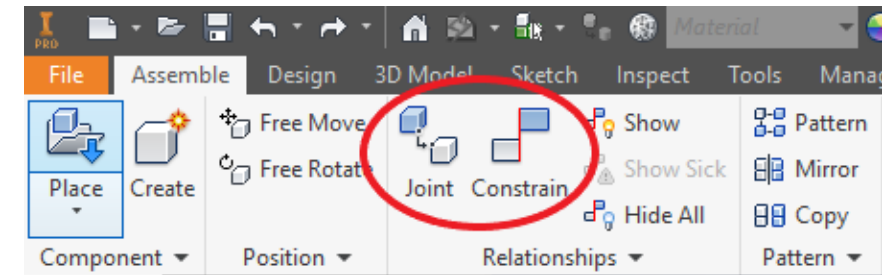
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Tips for using Autodesk

- Use Constraints and joints
 - Allow easy shifting of parts if needed
- Not all parts are required to be recreated in cad
 - Only cad the main parts
- Make the robot in separate pieces.



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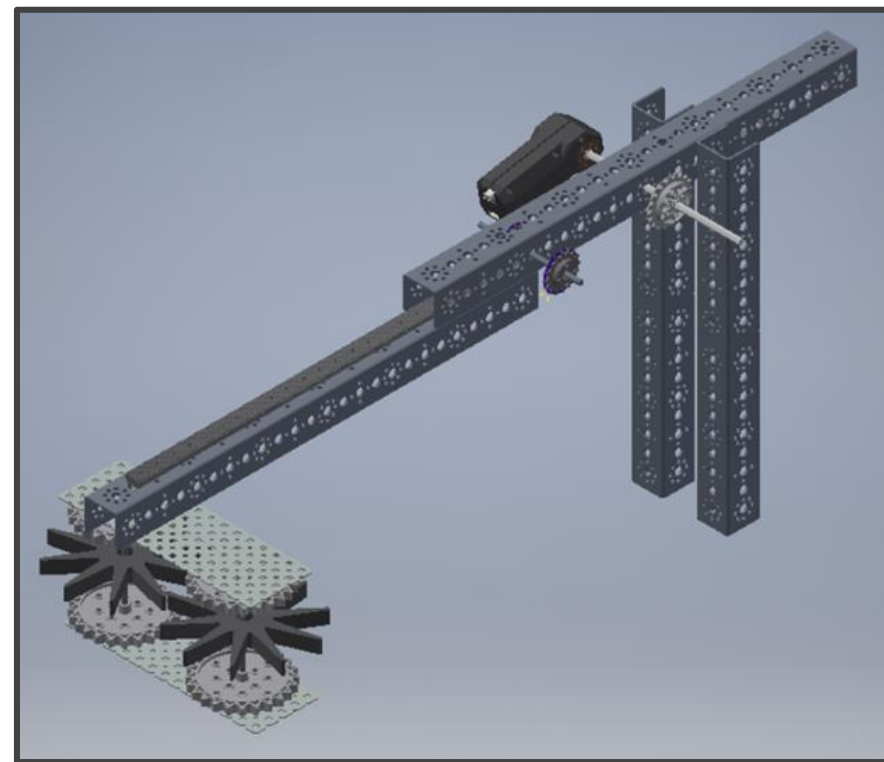
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Presentation tips

-Use the snipping tool
for a fast cropped
screenshot



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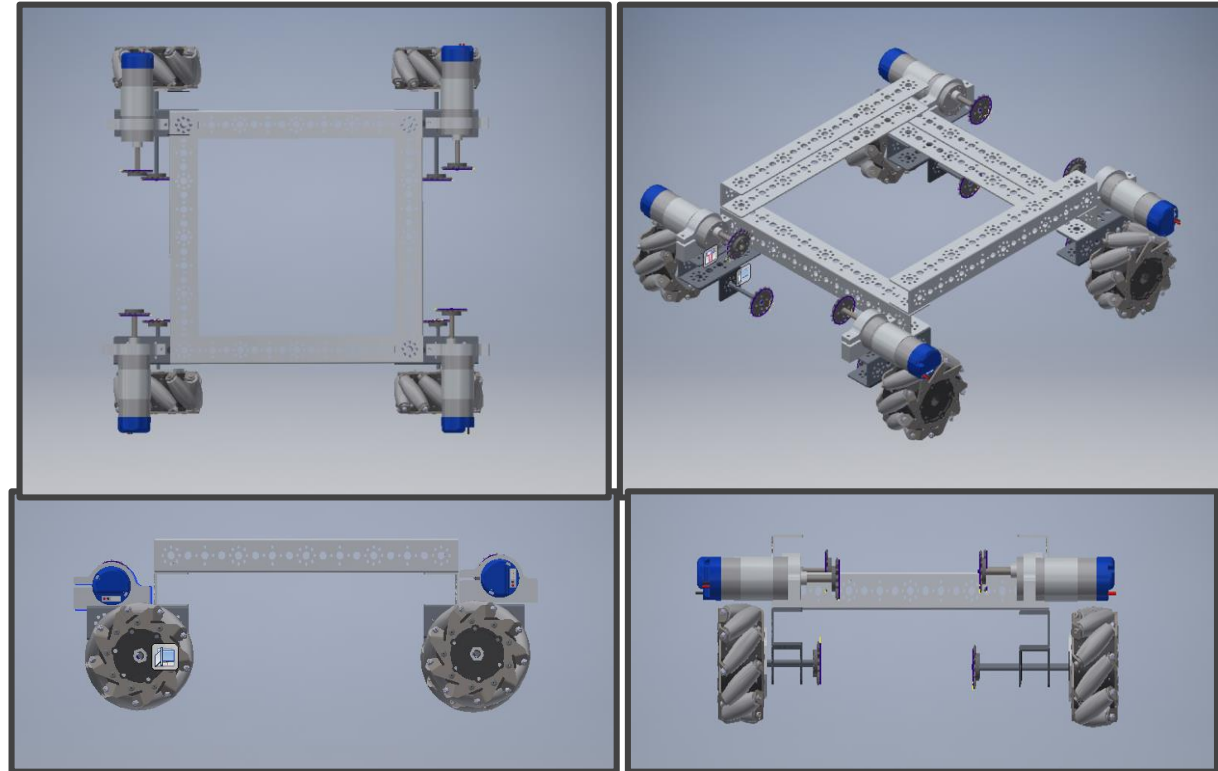
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Presentation tips

- Make multiple camera angles
- Show multiple parts of your robot



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Questions?



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