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Grand Blanc High School Robotics Team
2015 Mechanical Deliverable
Create a Working Drawing of an Assigned Object Challenge



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Mentor(s) to ask if you have questions about this Challenge: Clinton Bolinger, OR Mike Hasselbach

You *MUST* complete the "Create a Part File" challenge before you may begin work on this challenge.

Before Beginning this Challenge:

1. Use a device (preferably a personal laptop, phone, etc) to watch the "Assemblies and Drawings" tutorial by Mike Hasselbach, "TheMadCADer"
 - a. If you do not have a device to watch the video, you may use one of the Team computers, if they are available.
 - b. Link to Mike's Channel: <https://www.youtube.com/user/TheMadCADer>
 - c. Link to video: <https://youtu.be/noPwJmkpRvk?t=4m35s>
2. Take notes in your Engineering Notebook:
 - a. Helpful things to note:
 - i. Can a drawing be created from a part file that has not been saved?
 - ii. How is the size of the part on the paper changed?
 - b. What did you think of the video? Was it helpful? Would you like to watch more?
3. If you have not already done so, create a personal folder on the EngiNERDs Server:
 - a. From a computer in the back room, open an explorer window
 - b. On the left side of the explorer window, scroll down and select the "EngiNERDs Shared" drive, go into the "Students" folder
 - c. Right click and select to create a "New Folder"
 - d. Change the name of the folder to YOUR First Name, Last Name (Example: Clinton Bolinger). Please do not use nicknames, unless it is a shortened version of your real name (i.e Nick instead of Nicholas).

You must complete the following portions of this challenge on one of the four desktop computers in the back room at Premier. If you need to use the computer, and someone is using it for non-Team related tasks, you may graciously ask to use the computer for VEX Team work. If you have problems, find Clinton or Brandi.

Challenge Instructions:

1. Make sure you've watched the entire "Assemblies and Drawings" tutorial video, and completed the Engineering Notebook portion above.
2. Open "Autodesk Inventor Professional" (version year doesn't matter)
3. Go to "New", and under the Drawings category, create a "Team 2337 Working Drawing Template" (skip the prompted entries for now, simply hit "OK" or "Cancel")
4. Place appropriate views and add necessary dimensions as shown in the video.
5. When finished, save the drawing file in your student folder.
6. Print the drawing file.



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Engineering Notebook Entry Instructions:

1. Attach a copy of your printed drawing into your notebook (scissors and glue sticks are available for use while in the conference room)
2. Take notes while you are working in CAD and discuss any difficulties that you may have
3. Answer the following questions:
 - a. Did you enjoy this task? Why or why not?
 - b. Can a drawing be created from a part file that has not been saved?
 - c. How is the size of the part on the paper changed?
 - d. How do you determine how many views are necessary to fully describe a part?

To Complete Your Challenge:

1. Ensure that your Engineering Notebook entry is complete,
2. Ask one of the Mentors listed on this challenge to approve your Engineering Notebook entry and have your deliverables checklist validated,
3. Save your work, close AutoCAD, shut down the computer,
4. Leave your workspace cleaner than it was when you found it.

Optional Information: If you ever get stuck or need assistance with Inventor, see if Mike is around. He's always happy to help.

- The **Browser** is among the most important things to have when working in Inventor. Refer to this: <https://www.youtube.com/watch?v=auOG1kTD2Kk>
- **Iproperties** are used to specify titles, designers, etc. of a drawing. Refer to this:

