Value Stream Mapping

A lot of Industrial Engineering students take on jobs as process engineers. Process engineers work in a manufacturing facility to increase efficiency and eliminate waste within the manufacturing process. They also ensure that the process is effective and make changes to decrease the number of defects that might result from the process.

Take a moment to watch some videos of **Process Engineers** at work to get a better idea!

https://www.youtube.com/watch?v=tvs7pSptpb0
https://www.youtube.com/watch?v=wJN8sqMqfGM
https://www.youtube.com/watch?v=bu3c1QNwIXo

All of the process engineers spoke a lot about looking at a process and making sure it is running as smoothly as possible. One tool they all use to do this is called a Value Stream Map. Value Stream Maps are used to break down a process in a visual way, this helps process engineers get a better understanding of the process.

Watch the video tutorial on how to complete a **Value Stream Map** below!

https://www.youtube.com/watch?v=uQIBaEvImTs

Activity:
Think of a process you go through in your life and create a Value Stream Map of it. Some examples to use may be making a sandwich, buying a new pair of shoes, your morning routine before heading to school, etc.
Keep in mind that each process should go into a block. Below the block should include details such as the amount of time it takes to complete that process, how

much time you need to wait to do the process and how often that process goes wrong! Each activity block should be connected by a transportation arrow!

After you complete your Value Stream Map, answer the following questions:

1. What steps in the process seem to take the longest?

2. Can you find any waste in the process by looking at the Value Stream Map? Remember, waste is any activity that a customer would not be willing to pay for (Transportation, Inventory, Motion, Waiting, Over processing, Overproduction, Defects).

3. What ideas do you have to make this process better?

4. A lot of process engineers make improvements to processes in a strategic way. They begin by making "Short Term Wins". These are simple fixes to problems that result in a quick improvement to the process. After completing short term win improvements, they move on to larger improvements that take longer to implement. Keep this in mind and write out how you would plan on implementing improvements to the process you mapped out.