

Names: Kevin Bond and Nathan Bach

Topic(s) Covered: 3D printer

What we learned: Nathan and Kevin learned how to effectively use the 3D printer. They learned how to level the base so the print sticks correctly to the base, and doesn't move or become loose in the middle of the printing process. They also learned how to upload a 3D file to the 3D printer via a USB drive, and then print it. They were also able to find designs made by other people online, and import them into the software that is used to make the 3D models. From there they can download the file to the flash drive and put it into the printer to print. They also learned that the supports on some models that were printed out were difficult to take off, and the best method is to use a flathead screwdriver, or some other thin metal tool to pry off the supports.

Problems encountered / How we solved them: One of the problems Nathan and Kevin encountered was no filament coming out of the head. They started printing something, and nothing was coming out the nozzle. They figured that the head was clogged with filament, and they pushed the clogged filament out. From then on the head extruded the filament the way it should.

Suggestions for others: Before each print, make sure the base is level, or else the printer won't print it out correctly. Also make sure the temperature on the head and base is heated up all the way. Make sure the base is also clear of any left over filament from previous prints, or else it may not stick correctly. Also use a screwdriver and pliers to take off large supports on some prints.

Summary: Nathan and Kevin learned a lot during this learning module. Neither of them had used a 3D printer before, and overall they had fun figuring out how to use and print things using the 3D printer. With this they made sure to start off small and work their way to bigger things. Starting with the whistle, it was small, but it was also effective. The elephant was then a great next step, especially because of the supports on the elephant that were mandatory to take off. It taught them patience and the rewards that come from hard work and effort. It's also shown through this activity that it's not the best idea to only print out what those have already modeled, but it is also great experience to work out the program and try to make your own creations, even if you don't print them, it was a great idea to test out and make sure that you have a good enough understanding of the program that you are using.