Building a model:

First model:

I started in class by modeling a coffee cup. I used Scann3D for all of my modeling. The biggest challenges I encountered were in regards to the background being part of the model. Rather than just modeling the cup itself, it would pick up a lot of the background stuff and spoil the model. I also encountered problems going around the model while taking the photos, it was a challenge to line it up perfectly every time so that the program would stich the photos together properly. I also noticed that its important to take photos from above the object so that its modeled properly on all sides.

Second model:

A few days later at home I attempted to model a small Pokemon figurine. I attempted to achieve the best lighting that I could from the lights that were available in my room. I set the figurine on a stool with a sheet covering the top with the hopes that it would improve the how the program stitched the images together. Once again I encountered issues with the background being part of the model but it was much less of a problem than when I modeled the cup in the classroom. I also attempted to keep my phone as level as possible when taking the photos so that the images were as uniform as possible. I also took photos from above the object to attempt to get a better 3D model of it. I had pretty good success with this one and it turned out really well actually. The object is modeled pretty well and there is little noise (I am not sure if that is the correct term) from the background behind the object. As a result of taking photos from above the object it seems that the top of the 3d model is better defined and has less unwanted aspects of it.

Third model:

For the third and fourth model I went to the National Gallery of Canada to attempt to find something with a little more relevance for the project. I modeled bronze sculpture that was created by Canadian sculptor Emanuel Hahn. I believe as a result of the material of the sculpture and the way the gallery lights reflected upon it the application I used to create the 3D model struggled and I was left with a very poor quality model. Much of the figure itself were distorted and similarly the space around the sculpture (which I did not intend to capture in the first place) were also heavily distorted. For the next model I looked for something that was made with a more 3D friendly material.

Fourth model:

I was finally able to achieve something half decent with the modeling of Henry Moore’s Reclining Woman. At first I took as many photos as I thought to be necessary (around 85) from all sides and as far as I could reach above it without security getting mad at me. I used Scann3D when I got home to stich the photos together and got an interesting result. Instead of just creating a 3D image of the sculpture as I intended it also 3D mapped the entire room around the sculpture including the security guard standing against the wall nearby. On the plus side, the sculpture itself (despite being surrounded by a lot of unwanted room) was pretty clear and showed potential. I needed to find a way of isolating the sculpture itself and doing away with the unwanted background. I attempted to learn if this was possible with 3D editing programs but before long I was far too confused to work it out and resorted to a simpler method. With the images uploaded to my computer I went through them to delete any photo that failed to capture the whole sculpture or was blurry in any way. I then used Photoshop to cut around the sculpture in each of the photos and delete all of the unwanted background. I was left with about 65 photos of just the sculpture on a white background. Those images were then transferred back to my phone so that they could be plugged back into Scann3D and turned into a model. The result was the background was mostly gone and the sculpture was quite well represented through the 3D model. It is far from perfect but I am mostly happy with it considering the time I put into it and the less then ideal methods I employed to achieve my results.