Slinky Dog

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My project was inspired by Slink, the slinky dog from Toy Story. I chose this project because Toy Story was one of my favorite movies growing up and still is to this day. Out of all the characters in Toy Story, Slink seemed to have the most unique design since he was supposed to be a slinky that the creators gave a dog like quality. Most of the other characters were dolls or action figures so they generally had the appearance of a person. I wanted to create something on SolidWorks that no one has ever done before and I think I succeeded with that.

To create this design I first started with his rear. I sketched a quarter of a circle then revolved it forming a semicircle that became both the dog’s butt and chest. For the tail I sketched a circle then used the helix tool under the curves tab to make a spiral. I then used the sweep tool of the circle along the path of helix. At the end of the tail I once again sketched a quarter of a circle and revolved it. I then used the flex tool to bend the tail up. I sketched the design of the legs, then extrude cut the design into the semicircle and then used extruded boss on the sketch. I put a fillet on all the legs to smooth them out. On the semicircles for the butt and chest I extrude cut a small hole for attaching the body during assembly. For the slinky body of the dog, I did the same as I did for the tail. For the chest I extrude bossed his collar and neck. I once again used the flex tool to bend his neck upward. The hardest part of this model was definitely the face hence why I saved it for last. Many different planes were created to try to form his facial features. His head was a semicircle that I revolved. His snout was created through a loft. I sketched a circle for the eyes then revolved cut and revolved bossed this sketch. I only really sketched half his face because my new favorite tool became the mirror feature. I just mirrored all his facial features over the right plane of the part. I found the flex tool to be the most difficult. I had to request assistance for this feature and that is when I learned another new tool: 3D sketching. It allowed me to just put a point in space so it was basically magic. Also, I attempted to flex the body spring to make it look flexible like it does in the movie but SolidWorks did not like that. I crashed the program four times before giving up. Since I had also already assembled it, everything went crazy when it rebuilt. All my parts now have the minus sign next to them even though every sketch is defined. Starting this class, I figured SolidWorks would be awful because technology usually hates and sometimes SolidWorks does but looking at my final product I see all that I learned this semester.

Features used: extrude boss, extrude cut, revolve boss, revolve cut, curves (helix), sweep, loft, flex, fillet, mirror, 3D sketching.