**Product Logs**

**Day 1 of Product #1:**

I started to design the wind turbine on SolidWorks. First, I designed the propellor, because it is the main part of the wind turbine. It took me approximately 45 minutes to design the propellor.

**Day 2 of Product #1:**

Since I had the propellor done, I did the easier part, which is the tower. This took me about 15 minutes to complete.

**Day 3 of Product #1:**

Day 3 was the day I completed my project. I designed the ring-like structure on the bottom of the wind turbine. Next, I designed the solar panel that will be placed on the structure. This took me about 2 hours to complete. Since, I have all the parts, all I had to do was combine them. So, I used the animation feature to combine the parts and make them move the way I want them to, which took me about 30 minutes. All what was left to do was take screenshots of my product and render the video of the animation.

**Day 1 of Product #2:**

For the first day of product #2, I went to my dad’s lab and picked the parts I need. Some of those parts included 3-D printed propellers, a motor, tubes, a few gears, and a solar panel.

**Day 2 of Product #2:**

Since I had all the parts for my product, all what was left is to build it. First, I started building the wind turbine. I used the tubes for the tower, which was the easiest part. Next, I connected the motor with the gears. The gears had small holes in them to put propellers in them. So, when the motor made the gear spin, the propellers spun too. Also, I connected a small propeller to the motor with a wire. So, when the big propeller spinned, so did the small propeller. This showed that the wind turbine actually generates electricity. Next, I attached my whole product to a flat piece of wood, so it can stand. This whole process took me about 1 hour and half.