Reese’s Pieces Party Starter

1. To start the machine we tied a bag full of marbles with one string to a pulley and with a second string to our nerf gun. The pulley is one of our simple machines and it is able to raise and drop the weight we need it to. We will pull the string causing the pulley to lift the bag upwards and when we drop it the machine will start.
2. When we let go of the string the bag will set off the gun to fire one of it’s nerf bullets. This gun uses elastic energy from the springs inside and when it fires the bullet that energy will transfer to mechanical energy.

The bullet that shoots from the gun that will push a lego train down the tracks it’s on. The train is an example of a wheel and axel, we used this to move it forward with only a little push from the gun.

1. The train will then hit a golf ball down on a small slant so it can then gain enough energy and speed for the next step.
2. The golf ball having gained enough speed from both the train and the slant will then collide with a piece of lego..
3. On top of the lego that the golf ball just hit is a hammer. without the support of the lego the hammer will swing and hit a marble. This marble will then go down our last simple machine the incline plane. .
4. Just as before in step 5 this marble will hit a lego support. This lego support is holding a battery which is attached to two tall posts by string.
5. When the support is gone the battery will swing and hit the bag of Reese’s Pieces spilling it’s contents into the bowl and finishing it’s course.

Energy transfers

Nerf gun: elastic to mechanical

Marble going down incline plane: gravitational to mechanical

