Roller Coaster Madness

Or

Where is the Energy?

Your job:

* Simulate a roller coaster using the Jason.org coaster simulation, paying special attention to the energy in your system.
* Build a coaster. You must have
  + 2 Loops
  + Corksrew
  + Stop without rolling off the coaster
* Success = smooth trip for your marble. No hops or jumps.
* Success = smooth stop for the marble
* Calculate the total energy in the system. Estimate the PE + KE

Design rubric entries with your partners for this project. What more would you like to include? Why? How does this project reinforce STEM thinking?