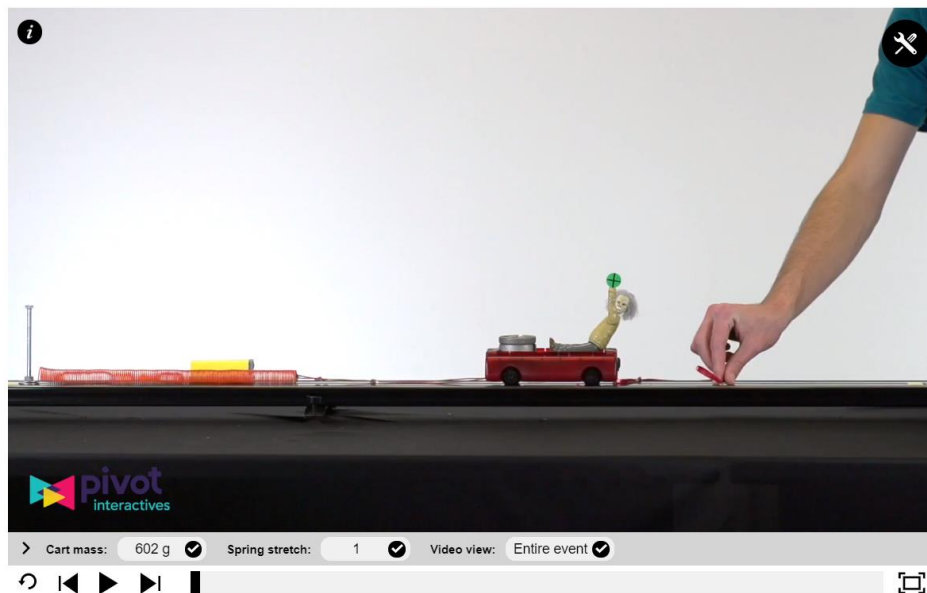


## Pivot Interactives Work Energy Activity

**Purpose:** To measure the work used to stretch a spring and then to measure the conversion of that potential energy to kinetic energy.

Access the Pivot Interactives lab “Work Energy Activity”.



We will start by following the instructions in the Pivot exercise Part 1, “Learning to make measurements with this apparatus”. Answer questions 1 and 2 in this part and press the “Submit Answer” buttons on each. If you answer those two questions correctly, you are ready to continue.

Now return to the video under Part 1. There are four choices for masses and five choices for spring stretch. Perform measurements of the potential energy of the spring (before release) and the maximum kinetic energy of the cart (after the spring is not pulling on the cart anymore) for 502 g and 702 g masses, and for each mass for spring stretches 1, 3 and 5. You will be performing six measurements of potential and kinetic energy altogether. For your measurements, assume that the spring constant is 26 N/m. Open a spreadsheet and make a table to record your measurements and your calculations of potential and kinetic energy. When you are finished, take a screen shot of your table and insert it into a Word file. Underneath the table, answer these questions:

- Do you expect energy to be conserved in each of your measurements?
- Is energy conserved in each of your measurements?

Then submit your Word file via Canvas.

