

Pendulum Challenge ~ Project **Name:** _____**Potential Credits:** /15

Using a pencil, answer the following questions. The lab is marked based on clarity of responses, completeness, neatness, and accuracy. Do your best! Please ensure that any data measured (or recorded) includes the appropriate number of significant digits (only one uncertain digit).

Pendulum

In this section, you will be referring to the *Video: Pendulum*

View the video and determine the minimum launch height required for the pendulum to “just” complete the final loop.

You will be graded on the clarity of your solution. For full marks you will include a diagram fully labeled with any variables found in your solution. You should also annotate any mathematical steps that require any assumptions or well-known physics principles.

Do all of your work on a separate page and hand in with the lab.

Please ensure that you answer the two questions posed in the video:

1. What is the minimum speed to make it over the top?
2. What height must it be released from?