Worksheet for Exploration 3.2: Run the Gauntlet, Controlling x, v, and a

Drag the tip of the arrow to control the position, velocity, or acceleration of the object depending on which animation you choose.

Use the animation to answer the following questions (position is given in meters and time is given in seconds). Restart.

a. Can you navigate to the goal on the right? We call this challenge Running the Gauntlet.

b. Which controller (the position, velocity, or acceleration) is harder to use? Why?

i. Describe what is meant by each term used for control and how each differs. Start with position.

ii. Velocity

iii. Acceleration.