

Moving Man - Position vs. Time Graphs

Goals – By the time you complete this activity, you should know:

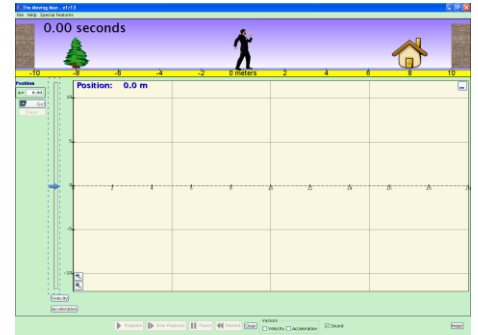
- What a graph of a person standing still would look like
- What a graph of a person moving away from an observer would look like.
- What a graph of a person moving towards an observer would look like.
- How differences in speed appear on the graph

Procedure – do the following activity using this web site

<http://www.colorado.edu/physics/phet/simulations-base.html>

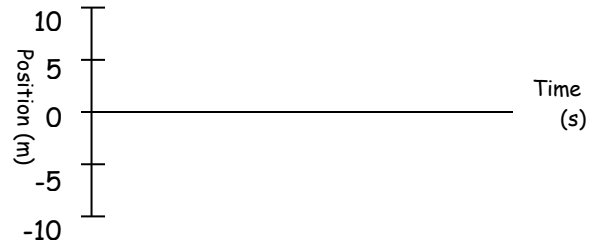
Then click on “The Moving Man”

1. **Getting started.** After “Moving Man” is open leave the position graph open but close all of the other graphs, velocity and acceleration. Your screen should look like screen 1.
2. **Making observations.** By either clicking on the man or the slider cause the man to move back and forth and observe what shows up on the graph. Using the axes provided below make a sketch of the graph that is produced by each action described next to each axis.



Screen 1

A person moving from 0m to 10m at a slow steady pace.



A person moving from 0m to 10m at a fast pace.

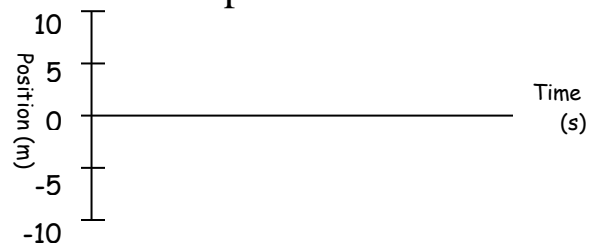


A person standing still at 4m.



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A person moving from 0m to 10m at a slow steady pace, then moving back to 0m at a fast pace.



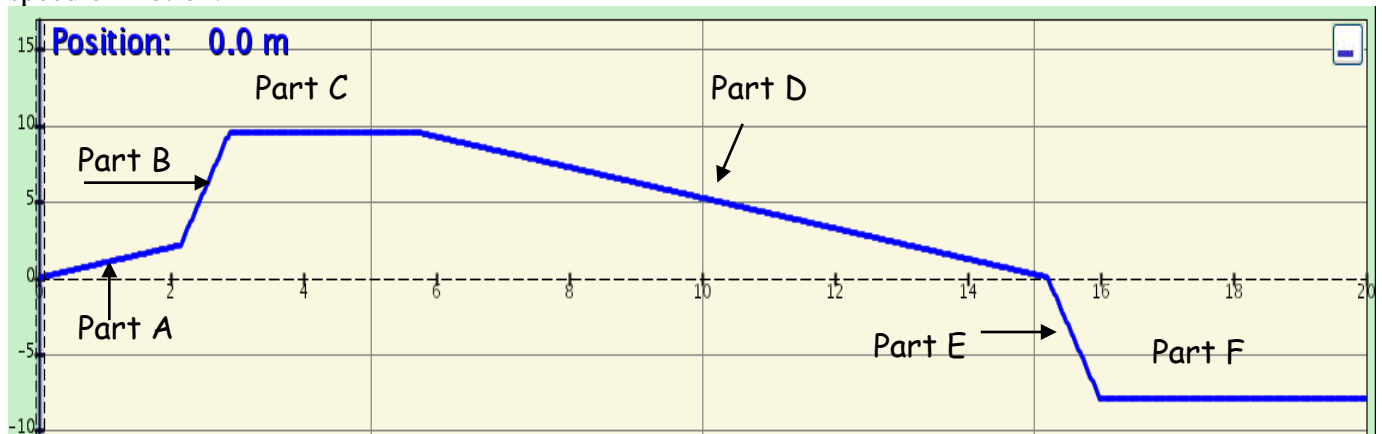
A person moving from 0m to 5m at a slow steady pace, then moving back to 0m at a slow steady pace.



A person moving from 0m to -10m at a slow, steady pace.



Apply what you learned. Look at the graph below and for the different parts of the graph that are marked write a statement about what is happening. Be sure to include the direction of motion and the speed of motion.



Part	Description of direction and speed
A	
B	
C	
D	
E	
F	

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