Kinematics – Acceleration

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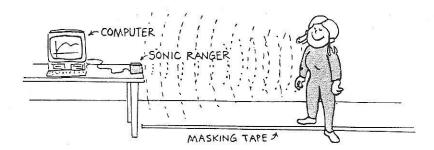


Fig. A

Calibrate the floor.

**Step 3:** Adjust the sonic ranger software so that it displays a distance vs. time plot. Point the sonic ranger at a student standing at the 5-meter mark of the tape. Calibrate the tape by marking where the computer registers 1 m, 2 m, and so on.

Observe graphs on computer monitor.

**Step 4:** Stand on the 1-meter mark. Always face the sonic ranger and watch the monitor. Back away from the sonic ranger slowly and observe the graph made. Repeat, backing away from the sonic ranger faster, and observe the graph made.

500	
500	
8	
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	tape. Slowly approach tl ted. Repeat, walking fast

**Step 6:** Back away from the sonic ranger slowly; stop; then approach quickly.

3. Sketch the shape of the resulting graph.