

Hybrid Car- Base Pro Plus II


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The Thought Behind Our Car

At first we thought we wanted to go for a unique idea of building a water bottle car. Until we realized the car had to hold a dollar worth of pennies.

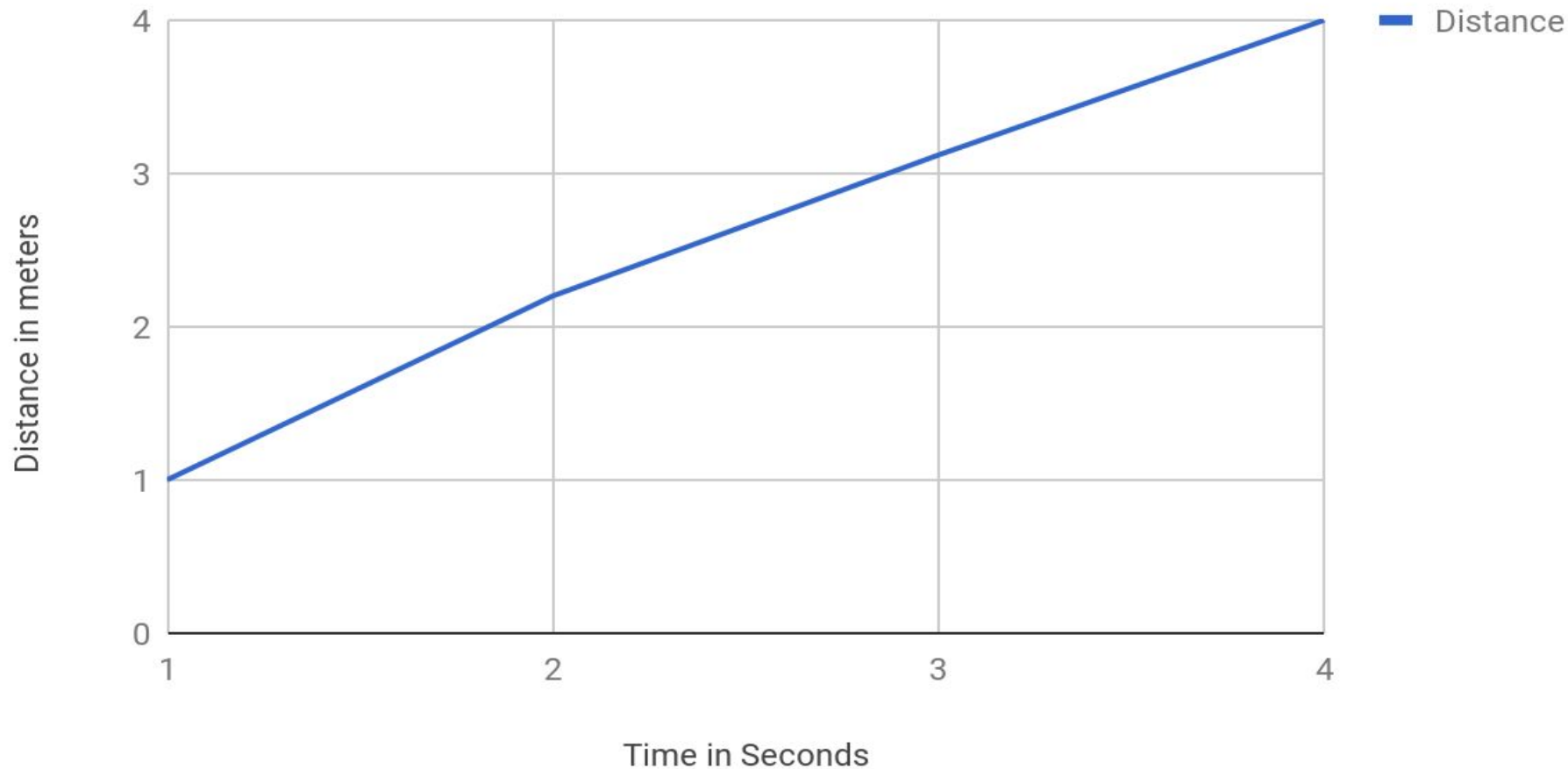
We decided to go for a car that was powered by a rubber band and a string around the axle. After building our machine we designed it to represent a guitar because of the long piece of plywood sticking off the end of our car.



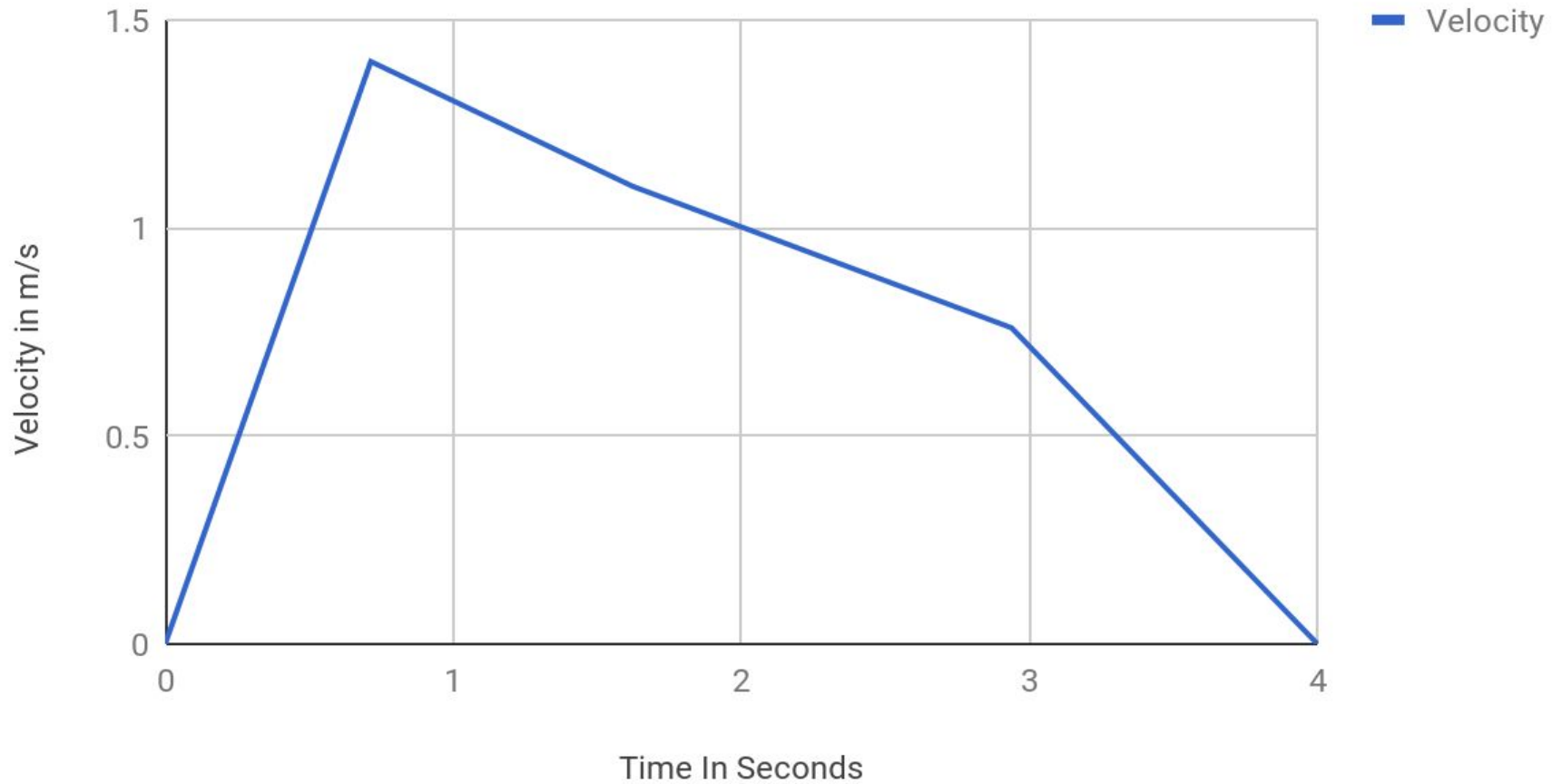
Our Design

- Solid cardboard wheels reinforced with duct tape for strength and grip
 - 2 masses weighing 500 g each
 - 4 circle shaped tires with a diameter of 3 inches
 - 28x2 inch piece of plywood used to attach our rubber bands to
 - 2 sets of 2 rubber bands tied together
 - 2 PVC pipes underneath our car to hold wooden dowels attached to the wheels
 - Designed as a guitar with tuners on the side and drawn strings
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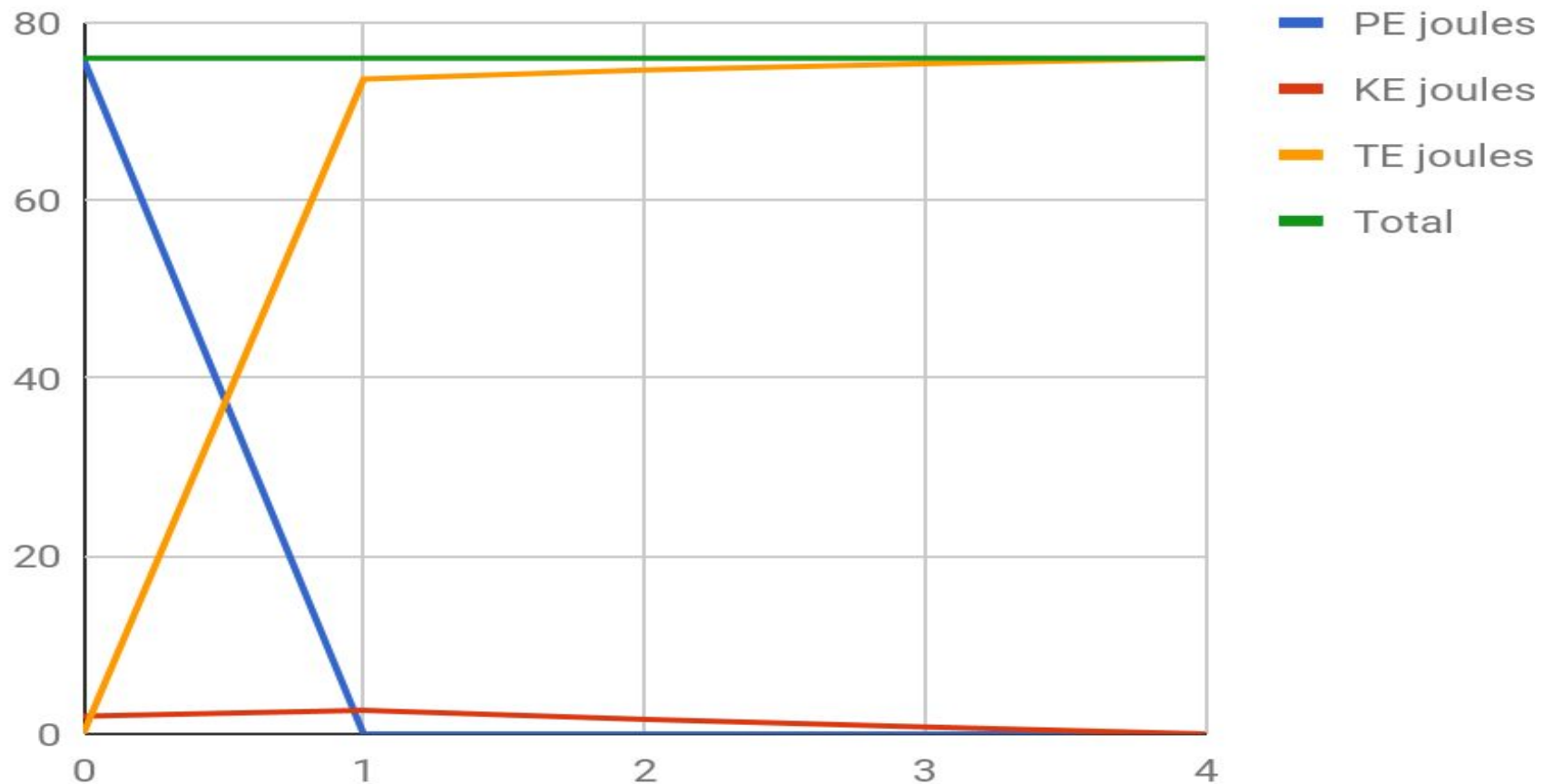
Distance



Velocity Vs Time



Joules PE and Seconds



Cost to construct our Car

22\$

Wood:\$15-20

Wood axles = less than \$1


Duct Tape: free

Cardboard wheels: \$1

Other: Negligible price.



Selling Points

- Inexpensive Design
 - Great for Musicians
 - Reliable car
 - Includes a fork to use for eating purposes or other things
 - Wheels enhanced with duct tape for grip
 - Basic design, easy to build
 - Safety features including a backboard and masses on top of our pennies to keep them secure
 - Does not require fuel of any kind
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Increase/Decrease of Friction

- Adding duct tape onto our wheels helped our wheels have better grip and decreased the amount of friction because the duct tape made the wheels move more smoothly
- The two 500 g masses increase the amount of friction by making the force exerted onto the ground weigh more
- This increase of Force down, onto the ground, makes the wheels go forward with roughness





Thanks for Watching!!!