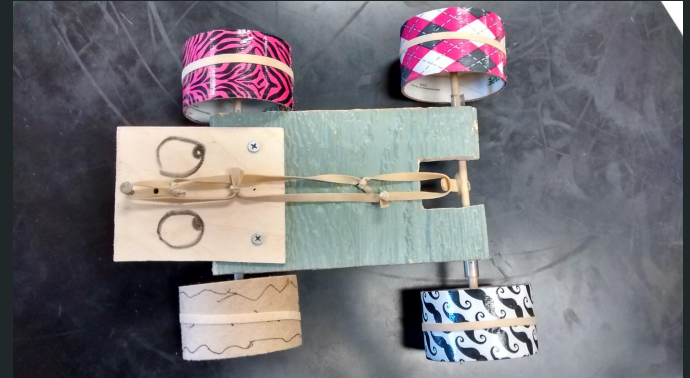


# The Duck Truck



By Eva Brandis, Lara Fleischhauer, Justin Keizer, and Alex Sheron

Name created by Alex Sheron.

## Materials and Costs

- wood (\$5.42)
- wooden skewers (\$0.48)
- empty duct tape rolls (\$4.99 per roll)
- cardboard (\$0.14)
- straws (small - \$0.16 big - \$0.80)
- rubber bands (\$5.09)
- nail (\$0.15)
- popsicle stick (\$0.19)
- screw (\$0.62)
- hot glue (\$4.22)

Total without tools: \$36.92

Our car is very cost efficient because you don't have to pay for gas because it runs on elastic energy(aka rubber bands). It is also made from cheap, sturdy materials that most people have at home.

# How Our Car Works



Step 1

Wind up the rubber band around the axle 10 times.

Step 2

Put 300 grams on the back of the car.

Step 3

Let the car go.

# Why Should You Use Our Car?

It is cost efficient, fast, and eco friendly. It will get you where you need to go but most of all...

Our car is fab

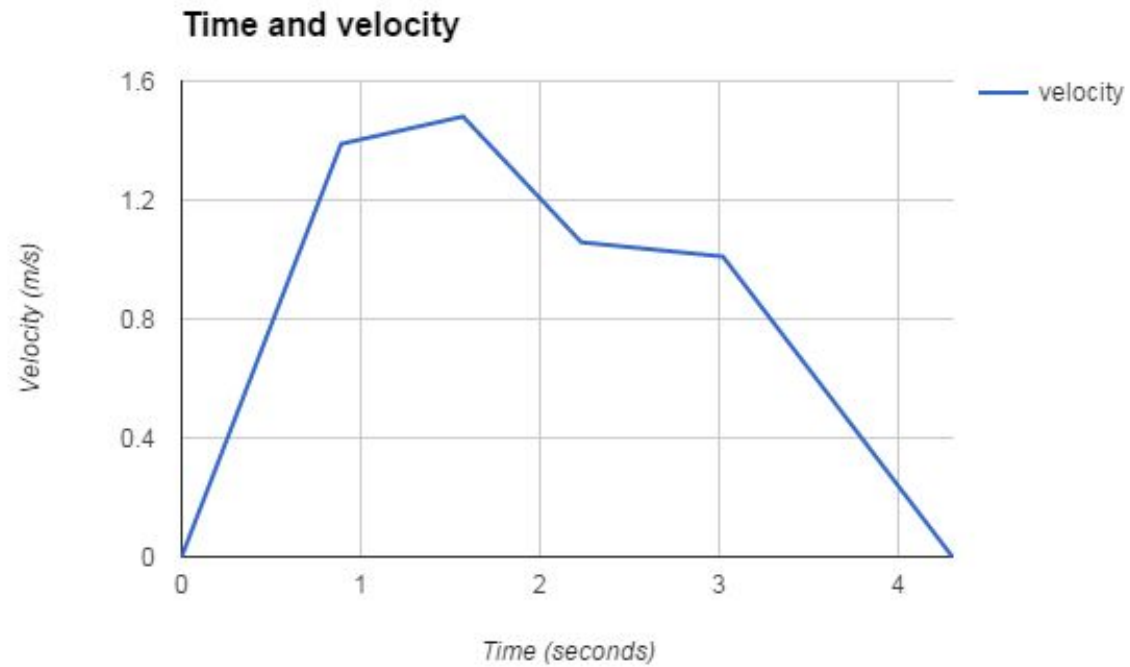
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# Data

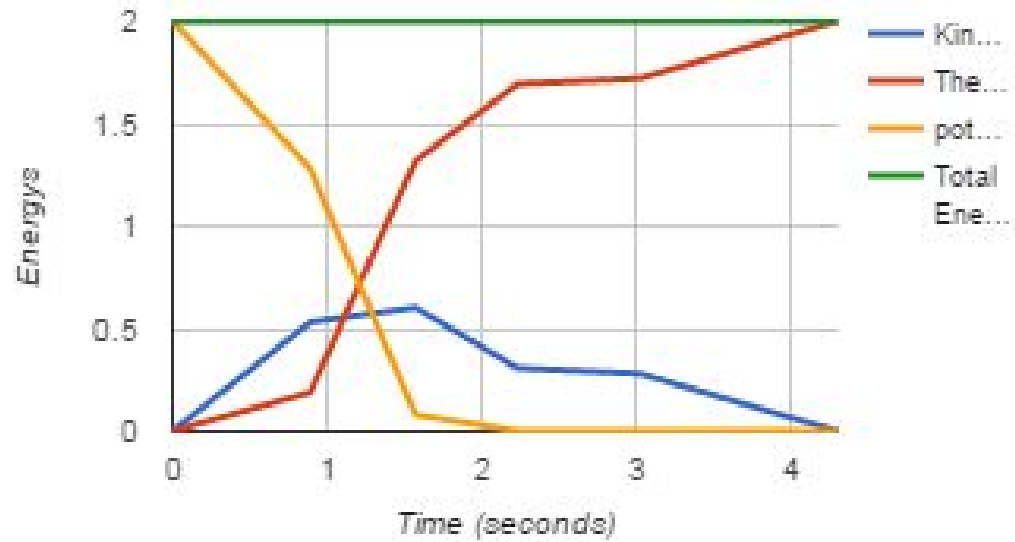
Distance	Time	Velocity	Acceleration	Kinetic Energy	Potential Energy	Thermal Energy
0m	0s	0m/s	0m/s <sup>2</sup>	0J	2J	0J
1m	0.89s	1.389m/s	1.56m/s <sup>2</sup>	0.531J	1.28J	0.189J
2m	1.57s	1.481m/s	1.35m/s <sup>2</sup>	0.603J	0.08J	1.317J
3m	2.23s	1.058m/s	-0.64m/s <sup>2</sup>	0.308J	0J	1.692J
4m	3.02s	1.01m/s	-0.72m/s <sup>2</sup>	0.281J	0J	1.719J
5m	4.3s	0m/s	-0.85m/s <sup>2</sup>	0J	0J	2J

During its 5m ride, our car moves at an average of 2.76 mph.

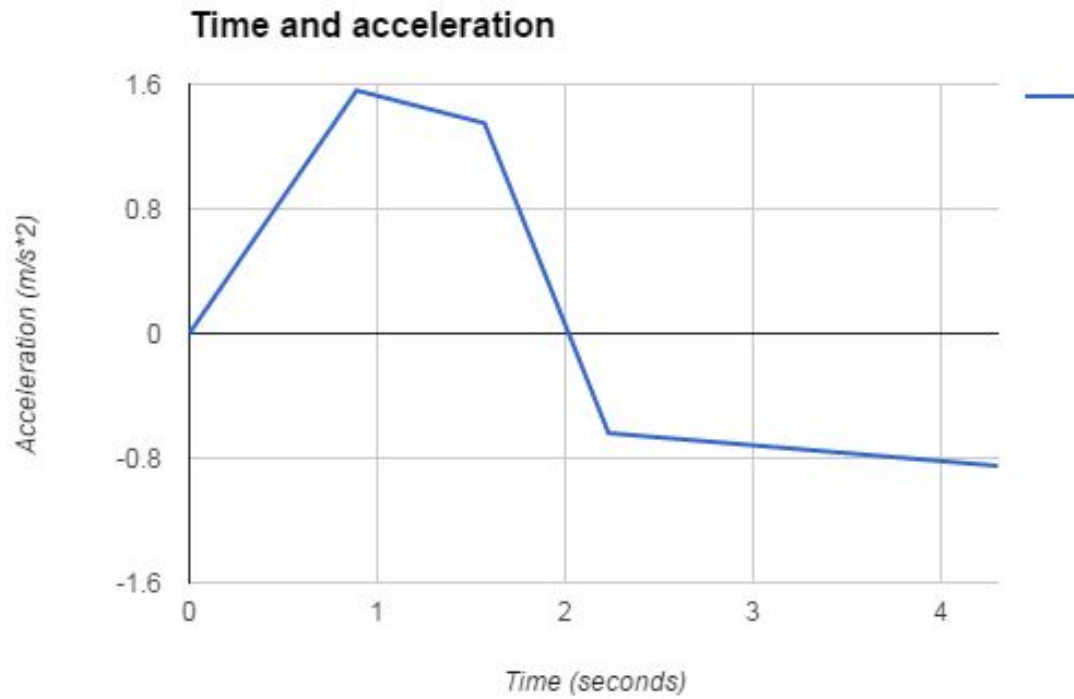
# Graph



# Graph

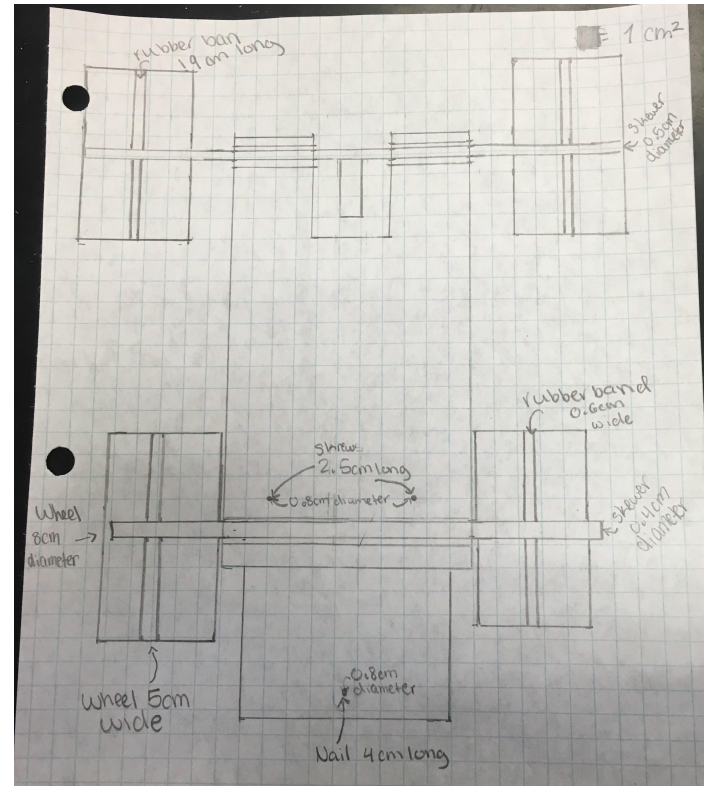
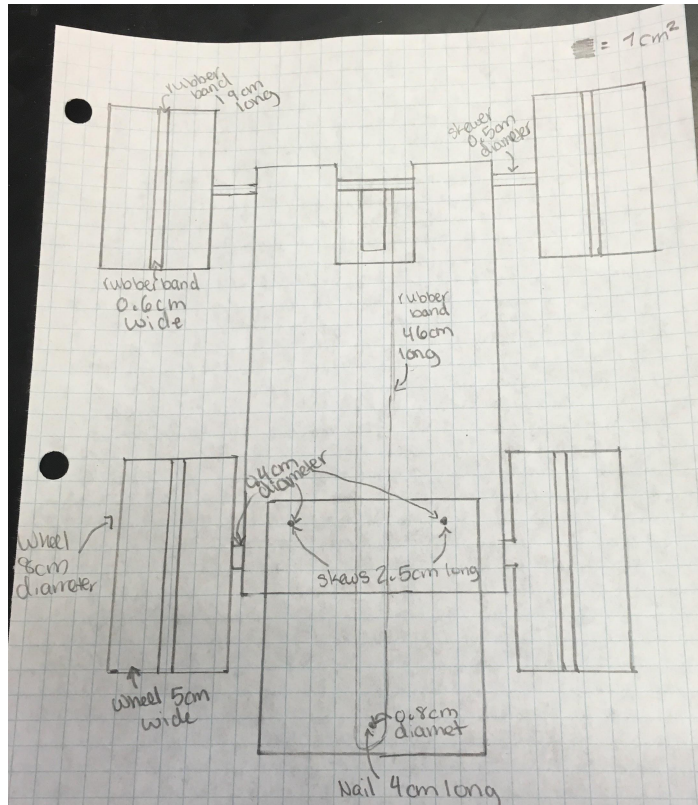


# Graph

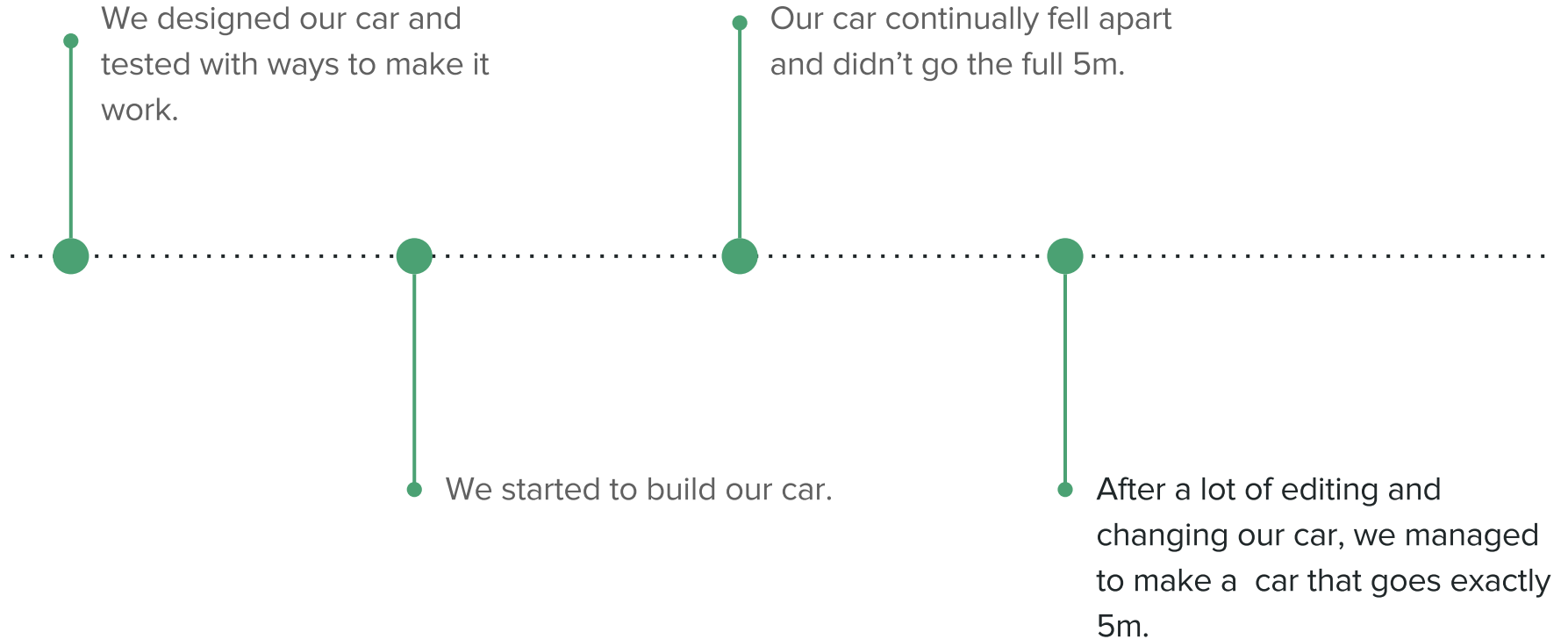




# Schematics



# Timeline



# The creators of the Duck Truck

Once again: Name created by Alex Sheron

## Eva Brandis

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Built the car, did the calculations, worked on the presentation, made original schematics

## Lara Fleischhauer

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Designed and built the car, made the new schematics, and worked on the presentation

## Justin Keizer

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Built the car, did performance graphs, and worked on the presentation

## Alex Sheron

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Built and was the master testor of the car and worked on the presentation.