
<p>Here we go! The creation of a mechanically controlled car</p>		
<p>Test your car</p>		

<h2>TEAM B5</h2>	
<p>Pupils Belgium</p>	<p>Pupils Sweden</p>
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1. ORIENTATION

1.1. Research questions:

- What will be the average speed of the mechanically controlled car?
- Which changing of parameters has the best result (fastest speed)?

1.2. Hypothesis

(here you only have to make a hypothesis about question 2)

Sweden: (no changes made)

Belgium: we changed the wheels of our car from caps to cork plugs. We think that the caps will be the fastest car because they are small and round.

2. PREPARATION

On the other document (twinspace) you see the sketches and propulsion of the car.

2.1. Parameter that will be changed:

(here you describe what you will change to the car)

Sweden: (no changes made)

Belgium: we changed the wheels of our car from caps to cork plugs.

2.2. Method:

2.2.1. Let your car drive and measure the distance that is possible.

2.2.2. Now, for the experiment, choose a distance that is shorter than the maximum distance. Make a sign on the floor on that distance.

2.2.3. Let the car drive and measure the time.


2.2.4. Calculate the average speed.

2.2.5. Repeat this three times.


2.2.6. Now, change a parameter and repeat the whole experiment.

3. DATA ANALYSIS and DISCUSSION

3.1. Observations and Measurements:

	DISTANCE (m)	TIME (s)	AVERAGE SPEED (m/s)
1	1	2,20	0,45
2	1	2,68	0,37
3	1	2,85	0,35

Changing of a parameter: *the wheels: from caps to cork plugs*

	DISTANCE (m)	TIME (s)	AVERAGE SPEED (m/s)
1	1	2,72	0,37
2	1	2,83	0,35
3	1	2,49	0,40

	DISTANCE (m)	TIME (s)	AVERAGE SPEED (m/s)
1	0.3	2.3	0.13
2	0.37	3	0.12
3	0.84	2.5	0.336

4. REFLECTION

4.1. Conclusion: *(here you discuss when the car drives fastest with or without changing)*

Belgium: the car drives faster with the caps because they are smaller and more rounded. The cork plugs are bigger and they weigh more. And the car drives straight ahead with the caps, the cork plugs goes slanted. So our car drives faster with the bottle caps.

4.2. Comparison of the results of the different countries: The Swedish car drives slower than the Belgian car.