





Here we go! The creation of a mechanically controlled car

Test your car

TEAM A7			
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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: When we change something about the car, it will be faster.

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 will change the weight of the car, so the wheels will stay on the ground.

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 then 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	0,15	1,53	0,09
2	0,15	1,46	0,10
3	0,15	1,59	0,09

Changing of a parameter: we will put something heavy on the car

	DISTANCE (m)	TIME (s)	AVERAGE SPEED
			(m/s)
1	0,15	1,32	0,11
2	0,15	1,41	0,11
3	0,15	1,36	0,11

	DISTANCE (m)	TIME (s)	AVERAGE SPEED
			(m/s)
1	0,37	2.03	0,18
2	0,38	1.79	0,21
3	0,40	1.82	0,22

4. REFLECTION

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

Belgium: It drives faster with something heavy on the car, so with the changing.

4.2. Comparison of the results of the different countries:

Belgium: the Swedish car drives faster than the Belgian car.