



# ERASMUS+

Germany

## Way to Germany

We went from  
Słupsk to Gdańsk by  
coach, from Gdańsk  
to Monachium and  
from Monachium to  
Hannover by plane.  
From Hannover we  
went by another  
coach to Walsrode.



# The first day at school

We all meet in Aula and we meet the mayor of Walsrode, school headmaster and we listen to some music which is Erasmus+ song.



# Walsrode Gymnasium

After meeting in Aula we went on trip through gymnasium. School in Walsrode have four storey and two blocks first block is normal gymnasium and second block is sport hall.

In school they have milk shop, bakery shop and canteen. In milk shop you can buy milk, juice and bars, in Bakery shop sweet bread and in canteen you can eat lunch.





## Ice breaking challenges

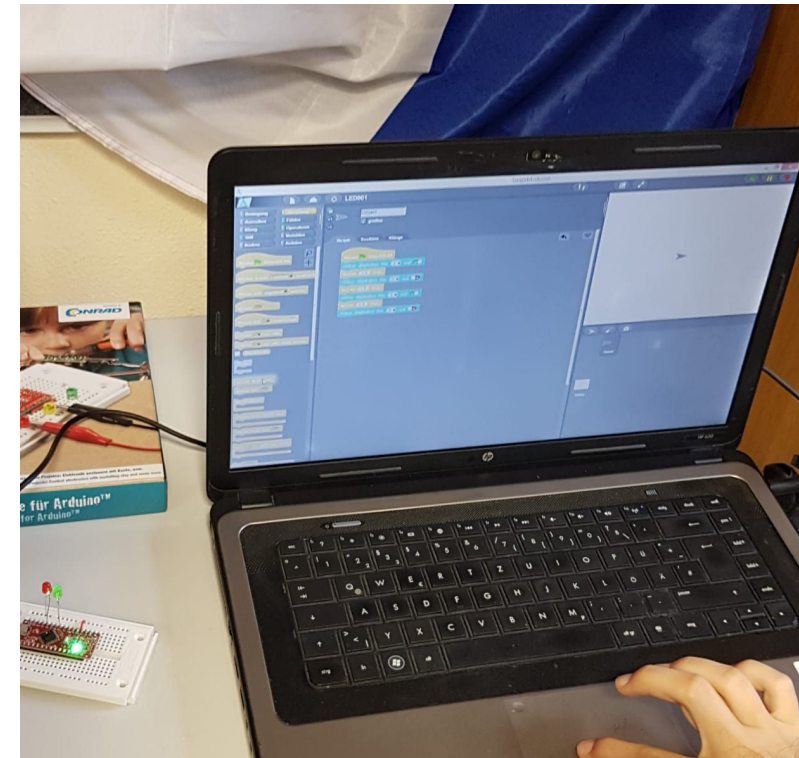
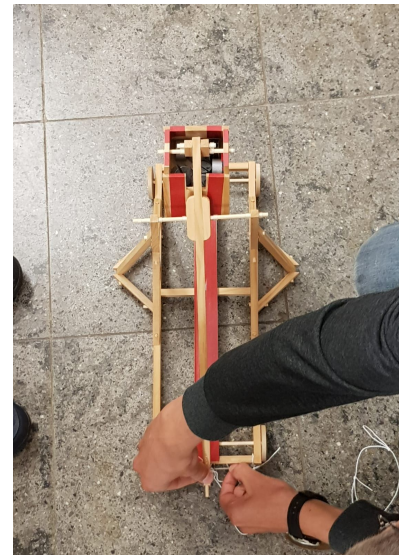
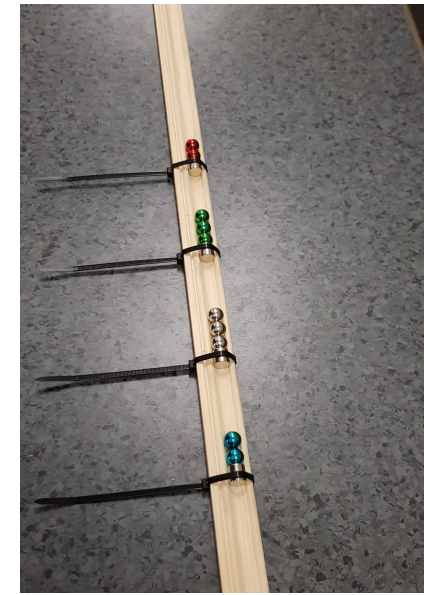
We all went to French class where we play in ice breaking games.

In first game you need to find person from other country which make something in other way.

And another game was Quiz in computer class.

# Science stations

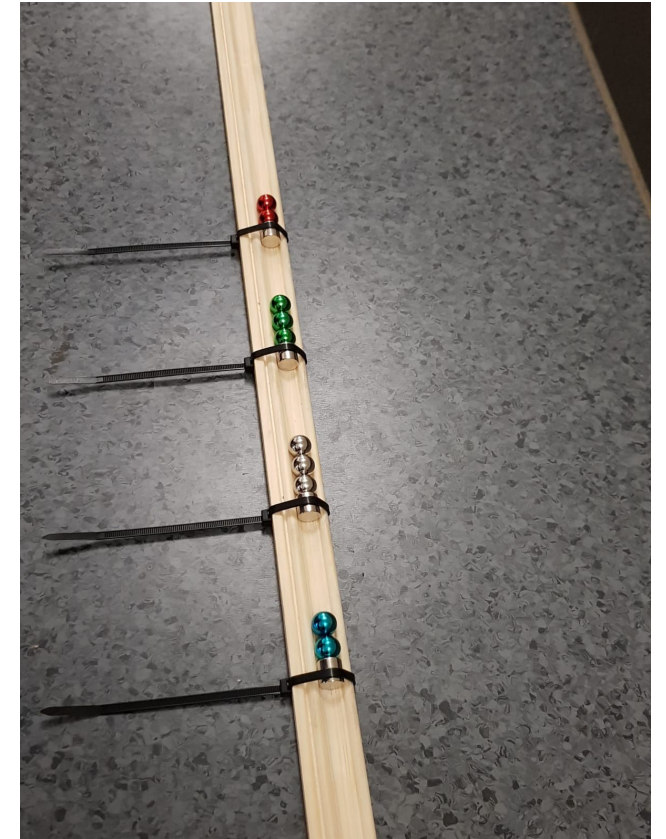
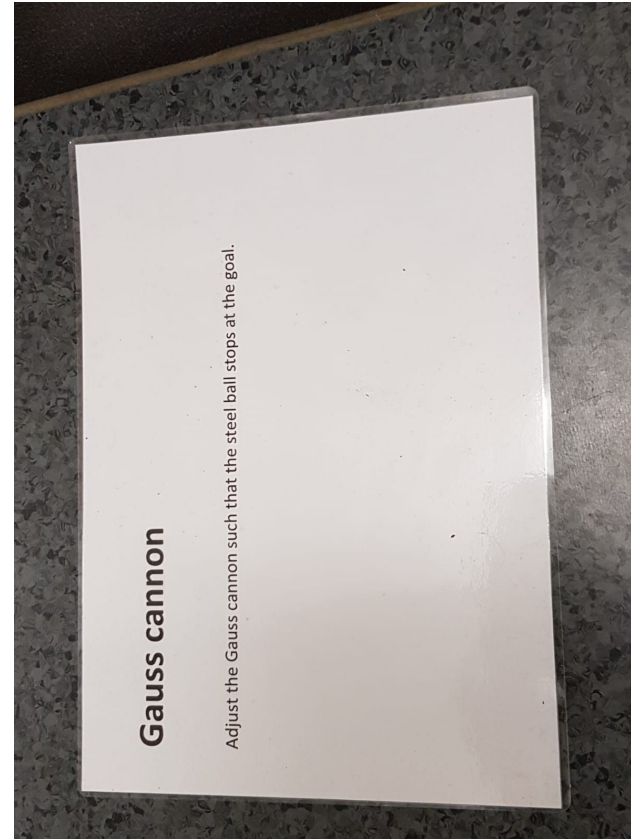
After playing games we eat lunch and after lunch we were playing with science stations such like Gauss cannon, Trebuchet, making your name in Morse code using Arduino and Nitinol turbin.



# Gauss cannon

Gauss cannon work in same way like rain gun because both of this cannons are based on magnetic energy. But rain gun shoot by energy beam and Gauss cannon shoot ball pushed by magnet.

When you push last ball it hits magnet and another ball go to magnet with more energy and this go to the last ball that shoots with massive energy into your aimed target.



# Trebuchet

Trebuchet is medieval siege weapon works like catapult but this shoots ball from pulled sack.

## Trebuchet

Adjust the trebuchet such that the cannon ball hits the goal.





# Nitinol motor

The nitinol is type of reacting with temperature metal. When you use nitinol cable to power the engine you need to place it in mug with hot water and push the wing of turbin.



## Nitinol motor

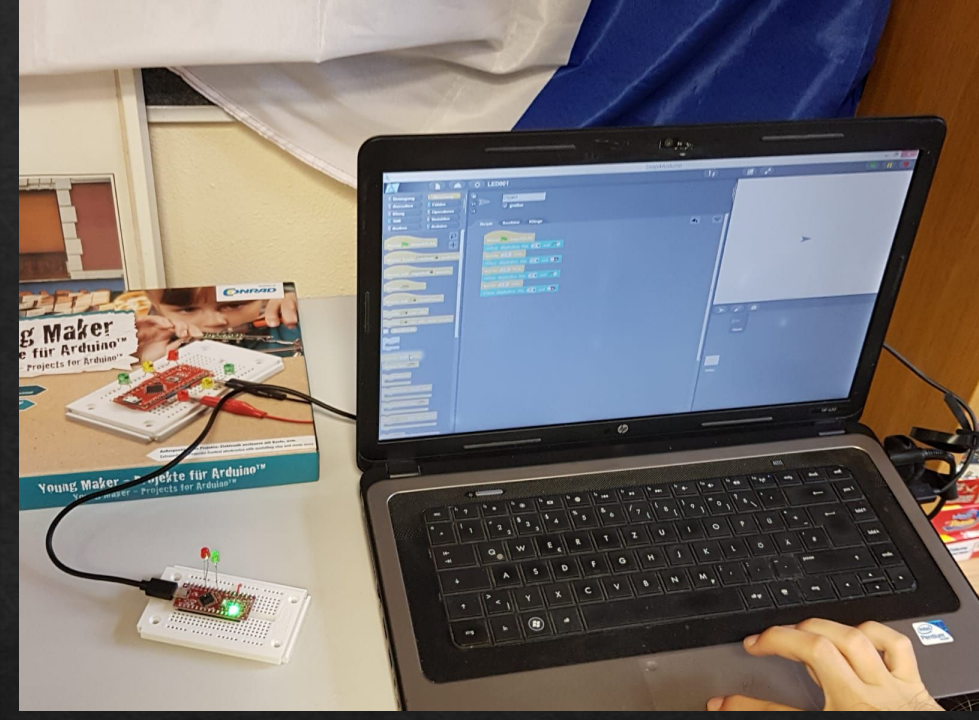
Start die Nitinol motor by pouring hot water into the cup and by slightly rotating the propeller.

Observe that the propeller can rotate clockwise and anti-clockwise.

If it doesn't work you are using too much or too little water, or the temperature is too low. In the latter case, reheat the water!

# Arduino nano and Morse Code

In this station you need to make  
commands which make light on  
arduino flashing your name in  
Morse Code.



Write your name in Morse Code.

## International Morse Code

1. The length of a dot is one unit.
2. A dash is three units.
3. The space between parts of the same letter is one unit.
4. The space between letters is three units.
5. The space between words is seven units.

|   |           |   |           |
|---|-----------|---|-----------|
| A | • —       | U | • • —     |
| B | • — • •   | V | • • — •   |
| C | • — • —   | W | • — • —   |
| D | • — • •   | X | • — • — • |
| E | • •       | Y | • — • — • |
| F | • • • •   | Z | • — • — • |
| G | • — • •   |   |           |
| H | • • • •   |   |           |
| I | • •       |   |           |
| J | • — • — • |   |           |
| K | • — • •   |   |           |
| L | • — • • • |   |           |
| M | • — • —   |   |           |
| N | • — •     |   |           |
| O | • — • — • |   |           |
| P | • — • • • |   |           |
| Q | • — • — • |   |           |
| R | • — • •   |   |           |
| S | • • • •   |   |           |
| T | • —       |   |           |
|   |           | 1 | • — • — • |
|   |           | 2 | • • — • — |
|   |           | 3 | • • • — • |
|   |           | 4 | • • • • — |
|   |           | 5 | • • • • • |
|   |           | 6 | • • • • • |
|   |           | 7 | • — • • • |
|   |           | 8 | • — • • • |
|   |           | 9 | • — • • • |
|   |           | 0 | • — • — • |

# Bowling

In the end of the first day we went bowling. While waiting on our throwing time, we made funny tower from Pringles.



# Hannover

On the second day we went to Hannover to technology university where we were met by one of teachers and robot.

Then we went to classroom on unusual informatic lesson.



# Activities



On activities we had to create game in scratch so we got instructions for three types of game.

First one was Pong , in Pong you need to use two sticks to strike. Second one was Dress up the cat - this is the easiest one and last one was the Maze in Maze - you need to build map and set in code that you can't go through it.

# Ice ring

After activities we had short brake and after we went to Ice ring for skating. The worker in food shop at the Ice ring was from Poland! Students from Greece had little problem because they had seen this for first in their lives!



# Bremen

On the third day we went to Bremen which is very old city with crazy little streets and good history. In Bremen stand a statue of donkey, dog, cat and chicken which are Musicians from Bremen but they don't play on any instruments. Buy Bremen was completely destroyed in the Allies bomber attack in 1945.



# Weserstadion

Stadium in Bremen have long history such like the matches were playing in WW II but stadium had three AAFC that were standing out the stadium. Stadium have many places were you can seat the expensive one cost 2000 Euro and cheapest one are behind goals and cost 14 Euro.

And grass cost 500.000 Euro.







## Sport day

On the fourth day was sport day it isn't many to talk so it's the chronologically listed activities:

1. Games for warm up.
2. Watching films that show how to play in headis.
3. Headis game play.
4. Free run stations such like balance footbridge.
5. Free run with pro go camera..

# FAREWELL DINNER

At the end of fourth day we all meet in old looking restaurant for dinner. In first time of dinner there been musicians that play ``international`` music and after that the folk music dancers have arrived and dance to folk music of course. At the end of the dinner we summary all week in Germany and got certificates and presents.



# Lufthansa strike

At last day in Germany we went to Hannover airport and got bad news: the Lufthansa were striking and we need to wait to tomorrow on another flight but wait were? In five stars Hotel!