# Programming

New Austrian Coding School

week 8 - recap exercise

Derek's robotic company wants to release their brand new robomime$^{tm}$. It looks cute and it does everything you tell it to. What else can a consumer ask for? You just have to get your robomime$^{tm}$ app, click on the tricks you want and press go. Your robomime$^{tm}$ will receive them and start performing them for you.

Everything is almost finished... Except for the communication part.

## Part 1

Develop the *Sensor* of the robomime$^{tm}$ so that when it receives the encrypted tricks from the app, it returns a list of String representing the tricks.
Have in mind the following:

- Use the *robomime.txt* file to simulate the wireless communication.
- Reuse the *FileReader* class.
- Create meaningful unit tests.

Three possible decryption strategies:

- If the line contains any ! symbol, remove them.
- If the line contains any & symbol, remove them and reverse the text.
- If the line contains any # symbol, remove them and also remove all *robomime* words.

Hints:

- *Use polymorphism with an interface to simplify the solution.*
- *Every line in robomime.txt is one trick polluted with many unnecessary symbols.*
- *Each symbol belongs to one decryption strategy. You only decrypt using the right strategy for that line.*

## Part 2

The robomime$^{tm}$ also keeps statistics of its own usage. Develop the *Archive* of the robomime$^{tm}$ so that when it receives a list of String representing the tricks it displays the number of unique tricks it received and also their names. Create meaningful unit tests.

```
Number of unique tricks: 5
Tricks: [touch the mirror, climb a ladder, grab a rope, robot dance, struggle against the wind]
```