JESUS, LUÍS AND PEREIRA, SABRINA APRESENTAM

# From Scratch to TI-Innovator Rover!

AN EVOLUTION AFTER A FIRST CONTACT WITH THE PROGRAMMING

# Programming in the Portuguese Curriculum

## The reality in 2019

As of September 2018, the Portuguese Ministry of Education has made programming teaching compulsory in all elementary schools. The students of the 2nd and 3rd cycles started to take classes in robotics and programming, and the subject was included in Information and Communication Technologies Classes, which was reformulated and made compulsory under the Autonomy and Curriculum Flexibility plan.

According to the Directorate-General for Education (DGE) this initiative of the Government "aims to give more autonomy to schools that want to adapt to the jobs of the future."

However, it should be noted that programming education already existed in Portugal, but implemented autonomously by schools in their curricular flexibility. Namely in the school where this project was implemented, 1st Cycle students have robotics and programming classes.

# Why did we choose the Rover?

This activity seeks to bridge the gap between what students learn in their first contacts with SCRATCH programming and how the code can be translated into something concrete with Rover.
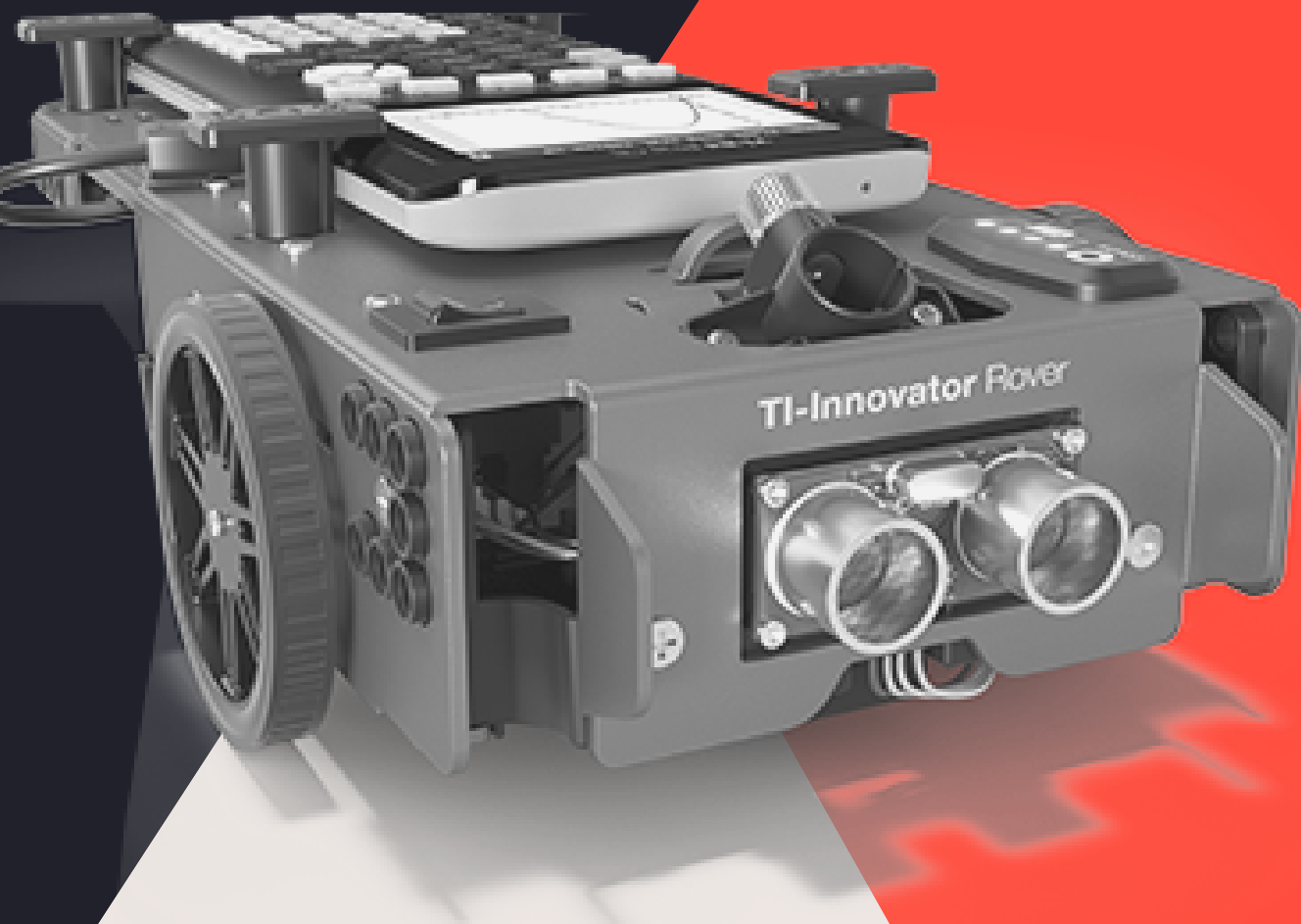
The project was implemented in the first cycle, level of education for which the Rover was not thought but that can be adapted in order to give to the children of younger age unique experiences of programming / logical reasoning.
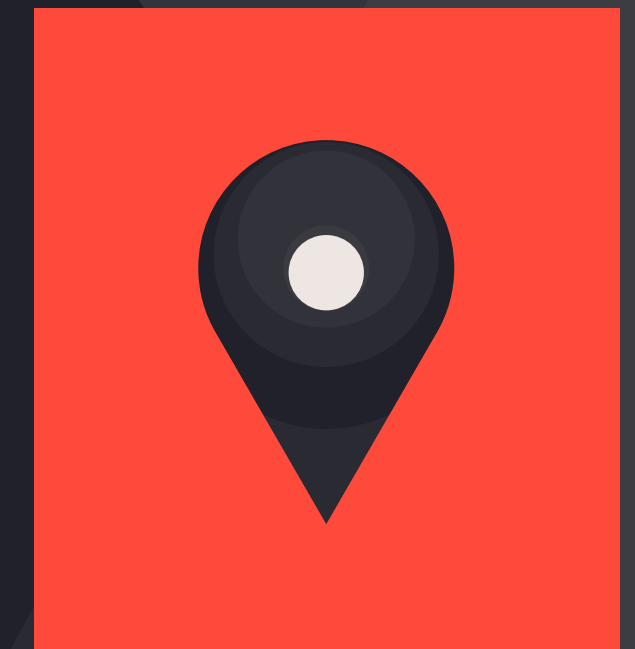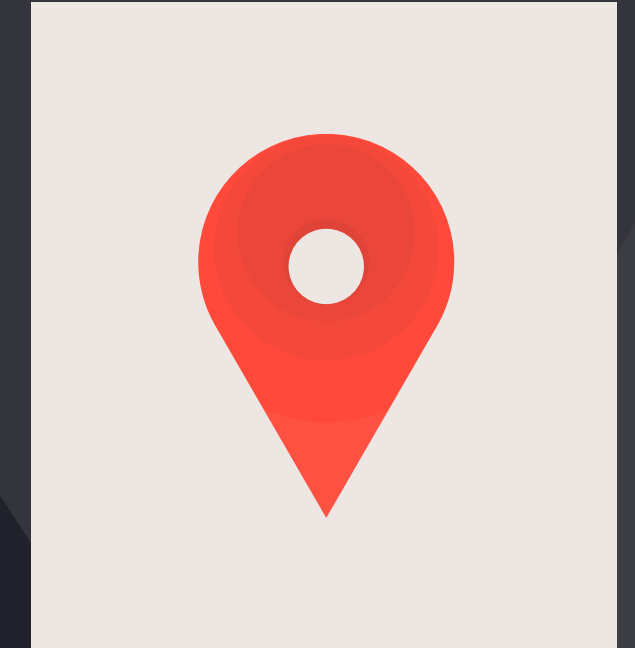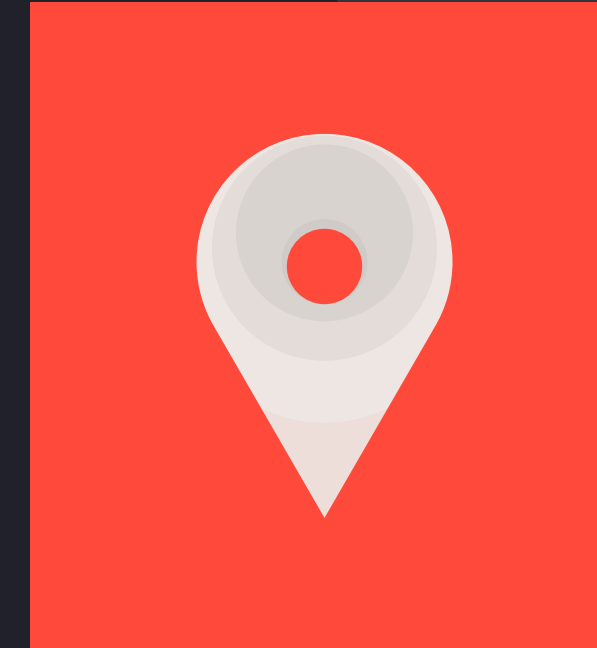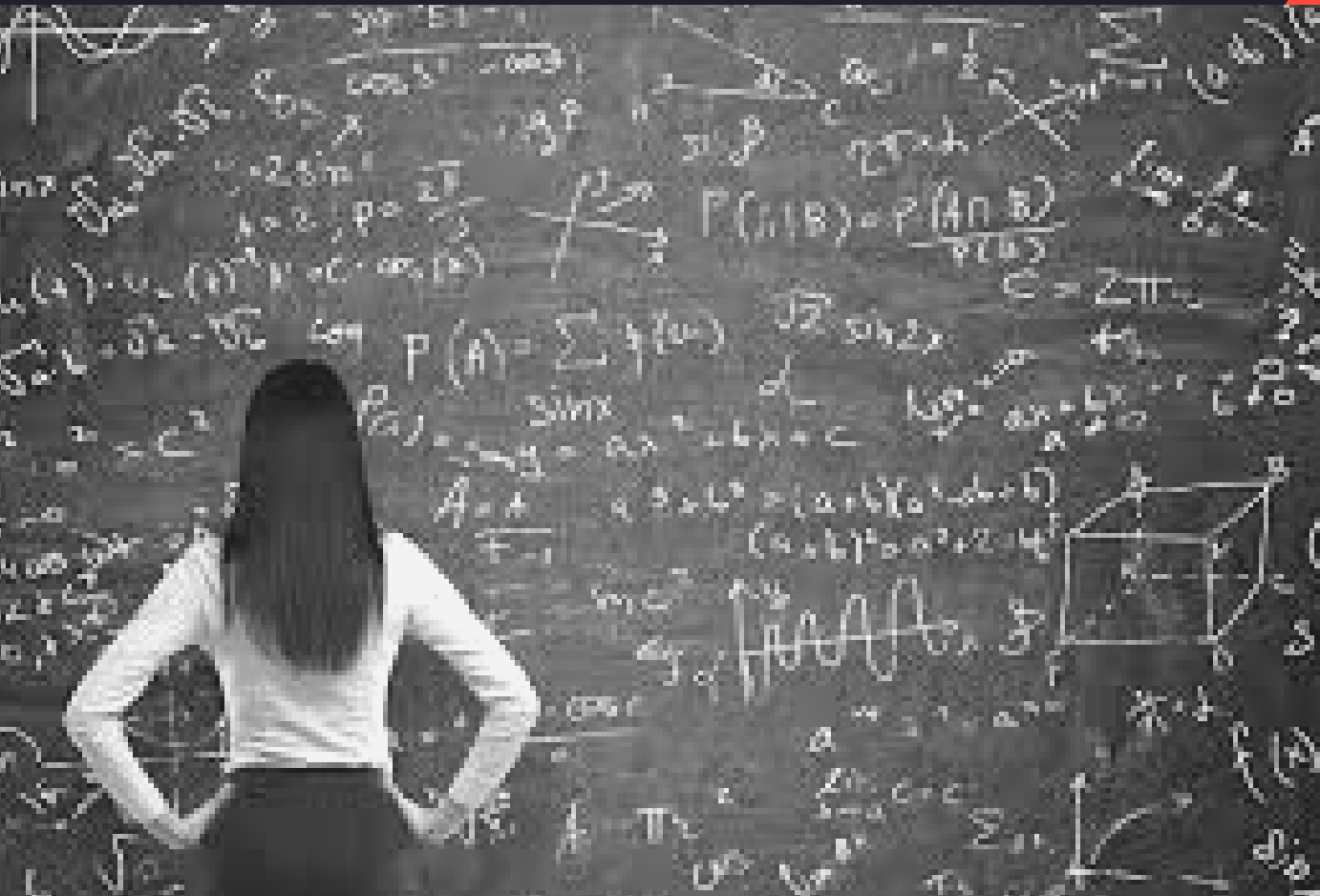
# Lets deactivate the bomb?

**Can you solve the code that allows the disabling of the bomb and save the World?**

The students will be presented with a series of tasks that, when completed successfully, will allow them to discover the code that will take the Rover to the bomb. If the code is correct, Rover will safely travel the route to the bomb and be able to deactivate the bomb, saving the Planet.

TI-Innovator *Rover*
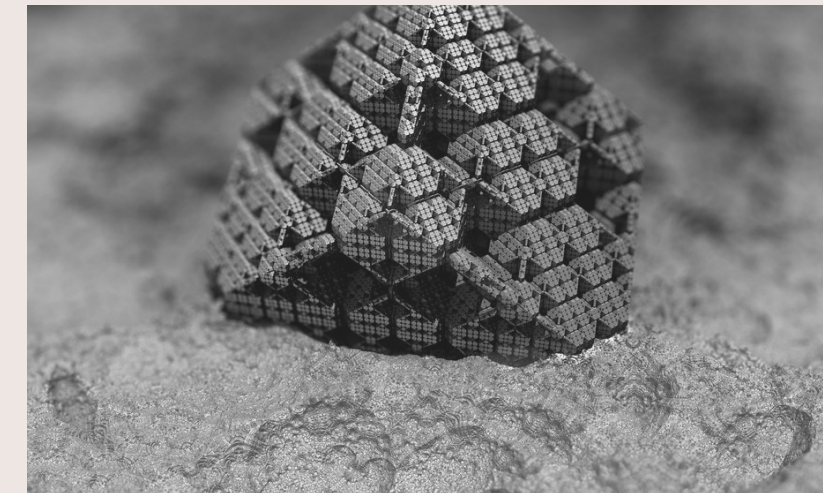
# LOGISTICS: NECESSARY MATERIALS



### *TI-Innovator Rover e calculators*

Several TI-Innovator Rover with attached calculator will be needed.



### *Cards with clues*

Cards will be provided to the teams with the clues that they will have to unveil to find the correct code to place on the Rover.



### *Map with path to the Bomb*

There will be a map with obstacles to overcome (three-dimensional) and with the position of the Bomb to deactivate.

# LETS START?

Students, after unraveling the clues, will unlock a code. If this code is correct, when inserted into Rover, it will advance the map correctly. The exercise ends when the course is completed to the end (reaching the bomb). If the code is not correct, students will be able to review their clues in an attempt to be successful and re-enter a new code in the Rover to deactivate the bomb.

# The people behind the idea!

**Luís Jesus**

TIC Teacher
Centro Escolar Nossa Senhora
do Pranto - Ílhavo (Portugal)

**Sabrina Pereira**

Implementation of Technology
and Educational Support - Tetri

SHARING INSPIRATION | 2019

SHARING INSPIRATION 2019