

Faculty of Sciences, University of Porto  
Department of Computer Science  
July 2018

**Author:** José Carlos Paiva

**Email:** [up201200272@fc.up.pt](mailto:up201200272@fc.up.pt)

# PROBLEM C

## WAR OF ASTEROIDS - Chapter III

---

### Description

---

#### Introduction

One way to gather information about the uncovered area of the world is to send bullets and wait its result. If you store the heading, position, and time of your shot, you can make a number of conclusions from its result.

#### Task

There will be three fake ships outside your radar, you should fire and wait the result or until it makes sense to wait. These ships do not move, fire, or activate shield. Your task is to destroy at least one of them, with a hit ratio of 90%. Shots fired before hitting a ship or after destroying a ship do not count as failures. Only shots missed after hitting a ship and before the same ship is destroyed are considered failures.

In this playground, you can use the method `state()` to access the state of your ship and the commands `steerLeft()`, `steerRight()`, `firePrimary()`, and `log(message)`. The method `firePrimary()` returns a promise, which resolves with the result, if the bullet was fired, or rejects if the recharge time has not ended or the shield was activated. Result is one of: `NO_HIT`, `HIT_ASTEROID`, `HIT_SHIP`, `HIT_SHIELD`, `DESTROYED_ASTEROID`, `DESTROYED_SHIP`.

**Important notes:** the lifetime of your bullets is 200.

Hint: use something like `firePrimary().then(...).catch(...)`. If your ... is an arrow function, you can save values like heading, position, and current time right in const declared variables right before firing, and use them inside.