Final mark

The final mark is composed by:

- 10% milestone 3
- 40% achievements
- 30% report
- 20% video (scientific quality)

Achievements

All achievement items are graded on 6 (half points) and averaged.

- **management** (20%):
  - *time management*: the team respects the deadlines, and plans well its usage of time (e.g., Gantt chart) to avoid rushing at the end.
  - *budget management*: the team stays within its budget limits.
  - *team management*: the tasks are equally shared within the team.
  - *process management*: the team communicates well with the coach, the experts, the workshops and the organizers.

- **functionalities** (40%):
  - *localisation & navigation*: the robot must be able to move autonomously in the arena, and to autonomously find its way back to the recycling area.
  - *obstacle avoidance*: the robot must not get stuck against any obstacles (bricks or walls) or move any obstacles in order to avoid them.
  - *being able to move bottles*: the robot must be able to purposely move bottles in the arena.
  - *being able to drop bottles in the recycling area*: the robot must be able to drop bottles (or push/pull if no container is used) into the recycling area.
  - *robustness*: all the features of the robot must be working at the start and at the end of the competition (i.e., no broken or damaged parts).

- **quality** (40%):
  - ***mechanical design***
    - *drawings*: the drawings contain all the elements required for the production of the pieces (sizes, tolerances, surface states, materials, etc.)
    - *design*: the design choices are well motivated and purposeful. The mechanical elements must be well sized to resist to the required loads.
  - ***electronics design***
    - *schematics*: the schematics are clear and all the interconnections between the electronic parts are well thought and completely documented.
    - design: the electronic elements must be well sized to resist to the required loads.
  - ***software***: the software design should be well motivated. The software should be able to deal with unexpected situations without getting stuck.
  - ***integration***
    - *software integration*: all the different software components correctly work together.
    - *mechatronic integration*: the mechanical and electronic parts are well mounted. There are no loose parts or cables. The cabling and connections are properly done.