CHECK-LIST Homologation guide

Are my robots ready for the approval tests? Check it yourself!
Test these following points (non exhaustive list) before presenting your robots to the approval area.

Robot

- ☐ **≤ 120 cm: non deployed perimeter** (in vertical projection)
- ☐ **≤ 140 cm: fully deployed perimeter** (in vertical projection)
- ☐ **≤ 35 cm: height** (beacon support and emergency stop button excluded)
- ☐ **≥ 50 cm:** cord length **(starting system)**
- ☐ Beacon mast support (optional): convex hull at any altitude, between a 7×7 cm circle & a 10×10 cm square, solid & opaque.
- ☐ Beacon support (optional): min a Ø 7×7 cm circle to max a 10×10 cm square, Velcro rough hook side, stable, height=43 cm (±5 mm), may support 300 g
- ☐ **Obstacle avoidance system;** sufficient coverage around the robot in order to guarantee the detection in all the moves
- ☐ Ø ≥ 2 cm, height ≤ 37.5 cm and red coloured: **emergency stop button**
- ☐ A space of 100 x 70 mm is visible on one side for sticking the participation label.
- ☐ Presence of an **actuator** that can be used for one action (not necessarily to move)
- ☐ **≤ 4 bars** at any point of non-commercial compressed air systems
- ☐ **Lasers:** classes 1, 1M authorized; classes 2 accepted if the laser stays inside the playing area; higher classes forbidden. Provide the data-sheets.
- ☐ All the **Lithium** batteries in safety bags (except LiFePO4 & unmodified BMS in sturdy case); bring the chargers.
- ☐ No forbidden equipments or **dangerous** for the persons or the goods (playing areas). File the projecting parts.
- ☐ **≤ 80 dBA**, 1 m away from the robot

SIMA

I do not have a SIMA (skip the following)

- ☐ **Undeployed perimeter ≤ 70 cm and fully deployed ≤ 80 cm**
- ☐ **≤ 15 cm: height** (beacon support and emergency stop button excluded)
- ☐ **≤ 1.5 kg : weight**
- ☐ **Obstacle avoidance system;** sufficient coverage around the robot in order to guarantee the detection in all the moves
- ☐ Ø ≥ 2 cm, height ≤ 37.5 cm and red coloured: **emergency stop button**
- ☐ **≤ 4 bars** at any point of non-commercial compressed air systems
- ☐ **Lasers:** classes 1, 1M authorized; classes 2 accepted if the laser stays inside the playing area; higher classes forbidden. Provide the data-sheets.
- ☐ All the **Lithium** batteries in safety bags (except LiFePO4 & unmodified BMS in sturdy case); bring the chargers.
- ☐ No forbidden equipments or **dangerous** for the persons or the goods (playing areas). File the projecting parts.
- ☐ **≤ 80 dBA**, 1 m away from the robot

Cursor

- ☐ **≤ 10 cm x 10 cm x 4.5 cm**
- ☐ **No propulsion system**
- ☐ No forbidden equipments or **dangerous** for the persons or the goods (playing areas).
- ☐ Emergency button (if batteries)
  All the **Lithium** batteries in safety bags (except LiFePO4 & unmodified BMS in sturdy case); bring the chargers

- ☐ The robot must stand in the starting area.
- ☐ The SIMAs must stand in the starting area.

Additional constraints

Remote computing device

- Should be contained in the dedicated platform
- **Width ≤ 32.2 cm;**
- **Length ≤ 45 cm.**
- **Height ≤ 160 cm.**

☐ **≤ 5 kg :** weight

☐ Emergency button (if batteries)
Fixation: threaded rod of Ø 8 mm & butterfly nut.

Embedded beacons

☐ ≤ 10×10×8 cm, velcro soft loop side/bottom, rough hook side/top.

☐ **≤ 300 g :** weight

☐ Laser & batteries constraints are the same as for robots.

Fixed beacons

☐ ≤ 10×10×100 cm

☐ **≤ 1,5 kg : weight**

☐ Fixation: threaded rod of Ø 8 mm & butterfly nut.
Laser & batteries constraints are the same as for robots.

Good to know!

- I anticipate my passage to the approval area. I do not wait until the last minute!
- I do not hesitate to homologate my systems individually when they are ready.
- When a substantial material modification is done, I must re-homologate what is necessary.