

















CHECK-LIST Approval 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 #1




- ☐  ≤ 120 cm: **non deployed perimeter** (in vertical projection)
- ☐  ≤ 130 cm: **fully deployed perimeter** (in vertical projection)
- ☐  ≤ 35 cm: **height** (beacon support and emergency stop button excluded)
- ☐  ≥ 50 cm: **cord length (starting system)**
- ☐  $\varnothing \geq 2$ cm, height ≤ 37.5 cm and red coloured: **emergency stop button**
- ☐  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 $\varnothing 7 \times 7$ cm circle to max a 10×10 cm square, Velcro rough hook side, stable, height=43 cm, may support 300 g
- ☐  **Obstacle avoidance system**; sufficient coverage around the robot in order to guarantee the detection in all the moves
- ☐  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 authorised ; 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 & Mindstorm); bring the chargers.
- ☐  No forbidden equipments or **dangerous** for the persons or the goods (playing areas). File the projecting parts.

Robot #2




- ☐ I do not have a second robot (skip the following)
- ☐  ≤ 120 cm: **non deployed perimeter** (in vertical projection)
- ☐  ≤ 130 cm: **fully deployed perimeter** (in vertical projection)
- ☐  ≤ 35 cm: **height** (beacon support and emergency stop button excluded)
- ☐  ≥ 50 cm: **cord length (starting system)**
- ☐  $\varnothing \geq 2$ cm, height ≤ 37.5 cm and red coloured: **emergency stop button**
- ☐  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 $\varnothing 7 \times 7$ cm circle to max a 10×10 cm square, Velcro rough hook side, stable, height=43 cm, may support 300 g
- ☐  **Obstacle avoidance system**; sufficient coverage around the robot in order to guarantee the detection in all the moves
- ☐  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 authorised ; 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 & Mindstorm); bring the chargers.
- ☐  No forbidden equipments or **dangerous** for the persons or the goods (playing areas). File the projecting parts.






Additional constraints

- ☐  The robot(s) must stand in the starting area.
- ☐  ≤ 205 cm: **sum of the non-deployed perimeters** of the two robots
- ☐  ≤ 220 cm: **sum of the deployed perimeters** of the two robots

Embedded beacons

- ☐  $\leq 10 \times 10 \times 8$ cm, velcro soft loop side/bottom, rough hook side/top.
- ☐  ≤ 300 g: weight.
- ☐  Laser & batteries constraints are the same as for robots.


Fixed beacons

- ☐  $\leq 10 \times 10 \times 51$ cm
- ☐  $\leq 1,5$ kg: weight
- ☐  Fixation: threaded rod of $\varnothing 8$ 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 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-approve what is necessary.


Central tracking device

- ☐  Dimensions (6 cm allowed in any direction around the platform, except towards the opponent side), fixation (threaded rod of $\varnothing 8$ mm & butterfly nut, and safety cable with a ring), weight (≤ 2 kg).

The lighthouse

- ☐  Should be contained in the dedicated platform and with good visibility from the audience.
 - **Width** ≤ 22.2 cm;
 - **Length** ≤ 45 cm;
 - **Height (not deployed)** ≤ 30 cm (and during the match, can be deployed up to 90 cm)
- ☐  Height of the light source when the lighthouse is deployed ≥ 70 cm.
The light source **sweep** is effective over at least 180° with respect to the front of the table.
- ☐  ≤ 3 kg: weight
- ☐  Emergency button (if batteries)
Fixation : threaded rod of $\varnothing 8$ mm & butterfly nut.

Score display

- ☐  The score display is visible and easy to read. It is installed on the robot(s) or on the lighthouse.

