



Eurobot and Eurobot Junior 2026 Rules

33rd edition of the robotic contest - Eurobot
OFFICIAL 1.0 version



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A. NOTICE

The rules have been split up in several documents. Most parts remain the same for the Eurobot^{Open} and Eurobot^{Open} Junior contests, but to avoid confusion, each contest has its own rules as a single document.

Thus the particular cases specific to one of the competitions appears only in the document concerning it.

You will find the Eurobot^{Open} and the Eurobot^{Open} Junior rules and other information on the Eurobot^{Open} website (www.eurobot.org/)

Please note that the version of this release is noted down at the end of this page. For any inquiry, only an OFFICIAL version should be considered.

Changes or clarifications of the rules may be made during the year. We therefore strongly encourage all participants to check our website regularly (www.eurobot.org/) as well as your NOC's own website for news. You can also follow discussions, ask questions or get further assistance on our faq (www.eurobot.org/faq/).

Any changes to the specifications will, if necessary, be set out in a supplementary document which will be available on the website of your national organising committee¹ and Eurobot (<https://www.eurobot.org/>).

The FAQ responses from a referee are official responses taken into account for match refereeing and homologation stages.

In case of doubt regarding any point of the rules or the homologation of robots, the referee committee may also be contacted at referee@planete-sciences.org.

Have a good reading!

As is the case every year, a number of parameters in these rules have been modified. As a result, please reread in detail all the parts of these rules, even those that seem familiar to you.

ATTENTION : all images and example in this document are provided as a guide to illustrate the various paragraphs. In no case can they serve as an exhaustive reference.. Only writed rules and the dimensions, colors and materials indicated in the appendix shall be taken into consideration.

¹For example: for France <https://www.coupederobotique.fr/>, for Belgium <https://sparkoh.be/projet-robotixs/>, for Switzerland <https://swisseurobot.ch/>

B. CONTEST PRESENTATION

Eurobot^{Open} and Eurobot^{Open} Junior are two international amateur robotics competitions for young people organised in clubs, groups of friends or schools. Their common aim is to enable young people to take charge of their own learning and put their knowledge, technical and social skills into practice, by taking part in a fun and friendly event. The technical challenge involves building one or more robots.

Eurobot^{Open} and Eurobot^{Open} Junior have for only ambitions those described above. As an actor of the popular education mouvement and as a youth movement, inclusiveness is a strong value for Planète Sciences and its European partners. The organizers do not (and will never) impose a team model; whether you participate to discover robotics, to practice your skills, as part of teaching or for competition, you are (and always will be) welcome.

The Eurobot^{Open} and Eurobot^{Open} Junior meetings are prepared passionately throughout the year by volunteers of all nationalities who believe in the educational values of this experience and are themselves, often, former participants.

The rules for both contest, Eurobot^{Open} and Eurobot^{Open} Junior, are based on the same concept. As organisers, we intend to provide a common platform for the Eurobot^{Open} event. This platform is dedicated to autonomous robots for Eurobot^{Open} while for Eurobot^{Open} Junior, the robots are remote controlled. In this way, the Eurobot^{Open} organiser can easily set up the Eurobot Junior contest and vice versa.

**You're currently reading version
Eurobot^{Open} and Eurobot^{Open} Junior OFFICIAL 1.0 of 2026 rules.**

This document is supplemented by the general Eurobot and Eurobot Junior rules in version 1 (latest sub-version)

C. THEME PRESENTATION

Winter is coming, and it's time for the squirrels to stock up on hazelnuts so they can spend the whole winter in their soft, warm nests.

But evil humans already took them all, put them in crates and are about to leave with them. This will make the squirrels starve for the next months!

Luckily it's coffee time for the humans thus the squirrels have only a few seconds to grab the hazelnut crates and hide it from the evil humans. But will they have enough to survive winter?

Your strategies will be:

- **Let's keep the hazelnuts warm.**
- **To find is to keep!**
- **Not too warm, not too cold.**
- **Nest, sweet nest.**
- **Munch time!**

Please note: All actions are independent from one another and no specific sequence is imposed whatsoever. No single action is mandatory. Give careful thoughts to your strategy. It is strongly recommended to design simple and reliable systems with a limited number of actions.



Figure 1: Overview of the playing area

D. PLAYING AREA

D.1. IMPORTANT INFORMATION

The organizers are committed to build the playing area with as much accuracy as possible. Nevertheless, minor tolerances may be observed depending on manufacturing constraints.

No complaints regarding dimensional deviations will be taken into account.

Teams are warned that the surface condition may differ from one playing area to another and may also degrade over time.

Graphics displayed in this document represent the Eurobot^{Open} playing area and not the Eurobot^{Open} Junior one. Thus figures show elements not useful in this version of the rules such as fixed beacon supports and remote computing device.

D.2. PLAYING AREA

The playing area is a horizontal rectangular plane of 3000 mm by 2000 mm with 70 mm height, 22 mm thick borders on each outer side. Depending on the construction process, it may consist of one or several parts (eg 3 parts of 1000 mm per 2000 mm). Please note that the joints may have imperfections, and it will not be possible to contest these imperfections during the competition.

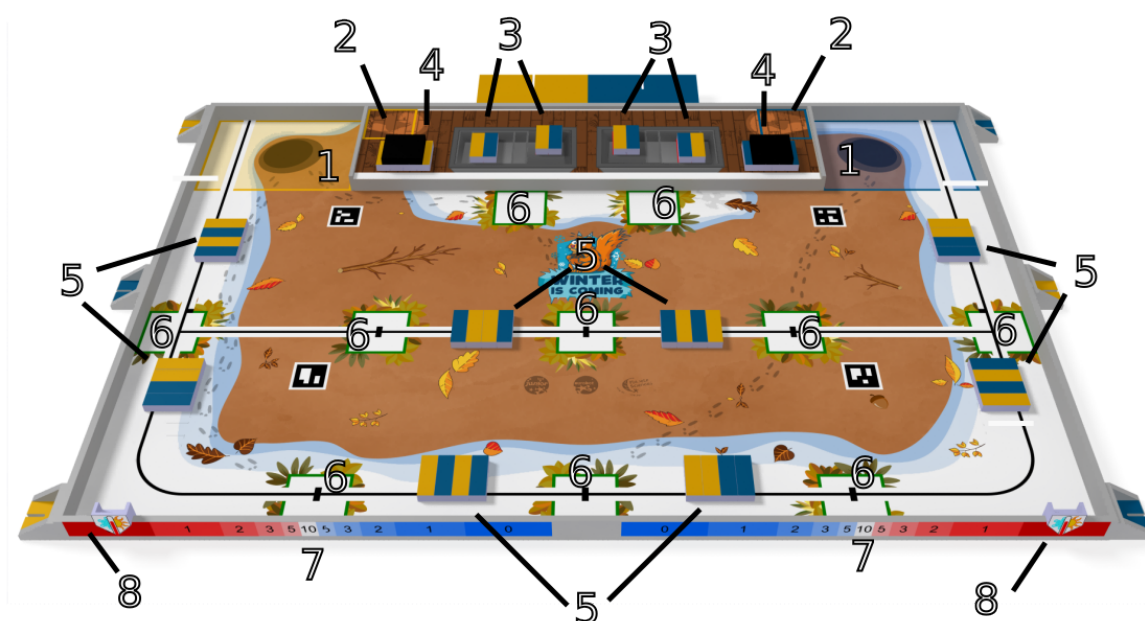


Figure 2: Detailed view of the playing area, audience point of view

- | | |
|---------------------------------------|--------------------|
| 1. Squirrels nest | 5. Collection area |
| 2. SIMA Starting areas in the granary | 6. Pantry |
| 3. Fridge | 7. Thermometer |
| 4. Loading area | 8. Cursor |

Full specifications of the playing area and game elements (dimensions, positions at the beginning of the match, colors and other references) are listed in the appendix.

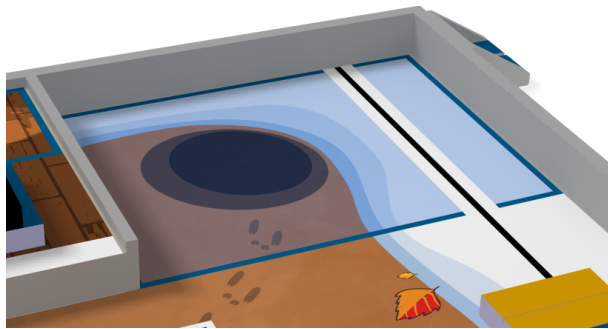
In the remainder of this document, horizontal and vertical directions are stated relative to the playing area. Notions of “left”, “right”, “front” and “back” are stated with respect to the spectator’s point of view.

D.3. STARTING AREAS

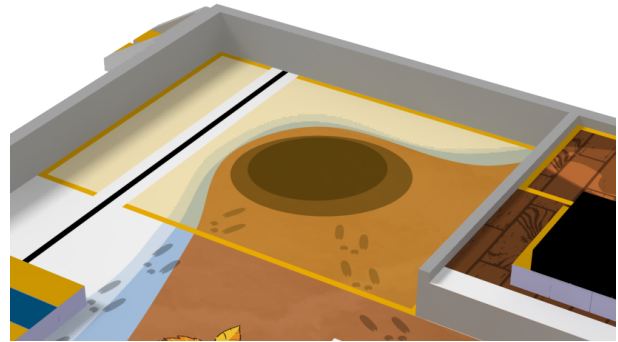
D.3.a. DESCRIPTION

Each team has one starting and finishing area.

The "squirrel nests" are the team's starting and finishing areas. They are the surfaces of 45 cm by 60 cm delimited by a line on the table, which is itself included in this area and of the team's color; they are placed in the rear corners of the table.



(a) Team blue starting and finishing area



(b) Team yellow starting and finishing area

Figure 3: Detailed view of the blue and yellow teams areas

D.3.b. CONSTRAINTS

At the end of the setup time, the vertical projection of the robots must not exceed the limits of their starting area.

Make sure your robot can fully enter its starting area.

The colored lines and the border of the table next to the area are also included in the starting area.

D.4. DESCRIPTION AND LAYOUT OF THE PLAYING ELEMENTS

The hazelnut crates: The hazelnut crates are wood pieces of 150 mm x 50 mm x 30 mm. They are painted in the teams' colors on their two largest, opposite sides (one face blue and one face yellow). The other four sides are free of color.

There are 48 crates and they are placed on one of the "team" sides in the different collection areas and fridges. A vinyl wrap is glued around each hazelnut crate as centrally as possible. This vinyl contains two zones in the team colors, including a 40 mm aruco tag with the values 36 for blue and 47 for yellow.

The empty crates: The empty crate are wood pieces of 150 mm x 50 mm x 30 mm. They are completely painted in black.

There are 6 of them and they are placed in loading area.

A vinyl wrap is glued around each empty crate as centrally as possible. This vinyl includes two 40 mm aruco tags with the value 41.

Thermometers: The thermometers are vinyl stickers stuck to the outside of the front border of the table. They are divided into 11 numbered zones along their width, which are used to count points.

The cursor: The cursor is an element provided by the organization. A team may bring its own cursor as long as it respects the maximum dimensions of the official cursor (100 x 100 x 45 mm), does not have a propulsion system, and the temperature reading is unambiguous.

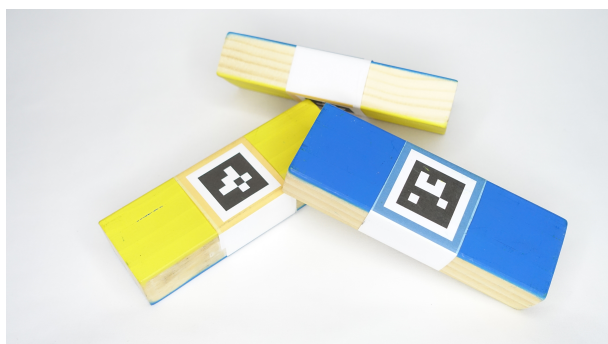
The granary: The granary is an elevated area at 55mm height in the central rear position of the table. Its surface is 450 mm by 1800 mm and is delimited by the side ledges. It includes 4 zones named **fridges** of 100 mm by 150 mm surrounded by a red line which is itself included in this area, containing 2 crates (1 of each color) and distributed in the granary. Its access is restricted to the SIMA.

Loading area: The loading areas are located at the front edge and on each side of the granary. They each contain a stock of 7 crates arranged in 2 tiers: 4 hazelnut crates in the team's color are on the ground and 3 empty crates on top.

The pantries: The pantries are areas distributed on the table and surrounded by a green line which is itself included in the area. Its surface is 200 mm by 200 mm.

Collection area: Areas distributed on the table and surrounded by a red line which is itself included in the area. Its surface is 15cm by 20cm. They contain 4 crates, 2 of each color in random order.

The little squirrels: Built by the team, the squirrel is a small independent mobile actuator (SIMA) activated during the match. It will initially be placed in the SIMA starting areas.



(a) The hazelnut crates



(b) The empty crates

E. ACTIONS

E.1. LET'S KEEP THE HAZELNUTS WARM!

The evil humans have collected all the hazelnuts and crated them, which is good for us, but they're about to leave with them, which is not good at all for us! Mommy squirrel will have to grab the crates left by the humans to hide them wherever possible before they come back.

E.1.a. DESCRIPTION AND LAYOUT OF THE PLAYING ELEMENTS

This is the main action of the rules. For this action hazelnut crates are used with the pantries and the squirrel nests (starting area).

E.1.b. ACTIONS AND CONSTRAINTS

Actions:

- The goal is to collect as many hazelnut crates as possible and deposit them in a pantry or in the squirrel nest.

Constraints:

- A hazelnut crate is considered placed in a zone if all or part of its vertical projection is in this zone and if it is in flat contact with the floor of the table.
- A hazelnut crate placed in the squirrel nest is valid for the team regardless of its color and it cannot be stolen by the opposing team. It is possible to put a maximum of 6 crates in the nest. Excess hazelnut crates will not be counted.
- A hazelnut crate placed in the pantries is valid for the team if its upper face is the team's color or on a free of color face. There is no limit to the number of hazelnut crates placed in these zones. The opposing team may steal the hazelnut crates.
- Each pantry brings a bonus at the end of the match. For a zone to bring bonus to a team, the team must have an absolute majority of valid hazelnut crates of its color in the zone. In the event of a tie, there is no bonus on the zone in question.
- An element still under control by a robot or a SIMA at the end of the match will not be counted.
- An empty crate is not considered for this action.

E.1.c. POINTS

- **2 points** per hazelnut crate in nest.
- **3 points** per hazelnut crate valid in a pantry.
- **5 points** per zone granting a bonus for the teams

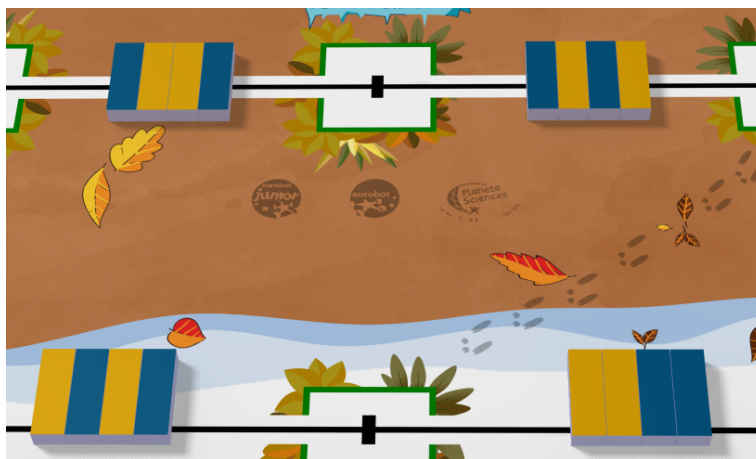


Figure 5: Hazelnut crates in a stock at the start of the match.

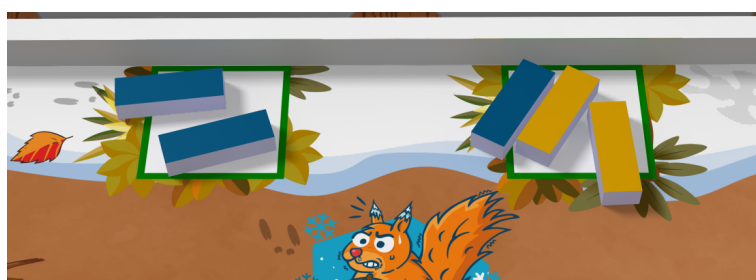


Figure 6: Various areas of bonus for the blue and yellow teams.

E.2. TO FIND IS TO KEEP!

The evil humans have already put a few hazelnut crates in their granary, but a brave ninja squirrel has managed to reach the granary. All that's left is to take the crates out again to have even more reserves for the winter. But we're still going to leave them the empty crates as a souvenir, they just shouldn't have picked them up.

E.2.a. DESCRIPTION AND LAYOUT OF THE PLAYING ELEMENTS

This action involves one SIMA as well as the granary and loading area.

E.2.b. ACTIONS AND CONSTRAINTS

Actions:

- The team can release one SIMA in the granary and have it empty the fridges and take the crates out of the granary, but fill the fridges with the empty crates.
- The SIMA are small independent mobile actuators (SIMA) designed by the team. For ease of identification, a harmonization of design and colors between the SIMA and the robot is desired.

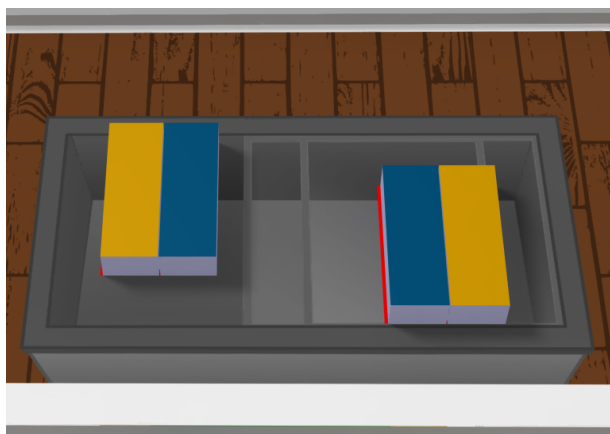
Constraints:

- During the preparation only one SIMA will be deposited in the starting area of the SIMA inside the granary and must be contained within the limits of the area of 20 cm by 20 cm. The colored lines, the border of the table (on its 22 mm thickness) and the ledge (on its 15 mm thickness) around the area are also included in the starting area.
- The SIMA will have the whole match time to achieve its objectives.
- Only the SIMA is allowed to move on the granary. The robot is still allowed to retrieve the game elements by overflowing into the granary. The robot is still not allowed to interact with opposite SIMA.
- At the start of the match each fridge has 2 hazelnut crates (1 of each color in random order). The goal is to empty these fridges and put out the hazelnut crates from the granary so that the robots can recover them. A fridge is considered empty if no more vertical projection of hazelnut crates intersects this area at the end of the match.
- At the start of the match each loading area contains 3 empty crates. The goal is to fill the fridge with these empty crates. A fridge is considered full if the vertical projection of at least one empty crate intersects this area at the end of the match.
- An element still under control by a SIMA or the robot at the end of the match will not be counted.
- An empty fridge or full with empty crates brings points to both teams.

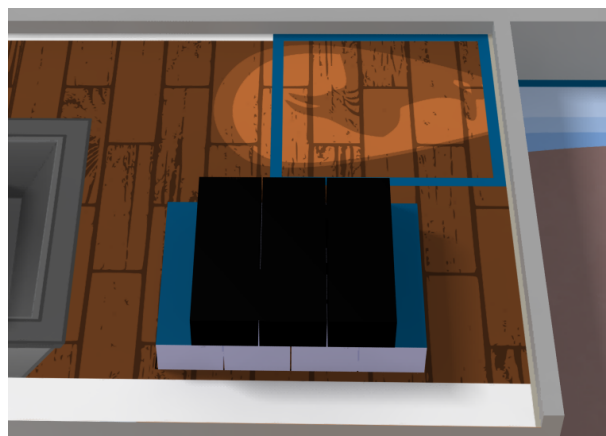
E.2.c. POINTS

Points for this action are scored for both teams.

- **2 points** per fridge empty of hazelnut crates at the end of the match
- **5 points** per fridge full of empty crates at the end of the match



(a) Hazelnut crates in a fridge at the start of the match.



(b) Hazelnut crates in the loading area at the start of the match.

Figure 7: Hazelnut crates position.

E.3. NOT TOO WARM, NOT TOO COLD

To keep hazelnuts fresh for as long as possible, it's important to store them in the best possible conditions. You need to adjust the temperature of the pantries as best you can, because yes, our little squirrels can do it (but don't ask us how...).

E.3.a. DESCRIPTION AND LAYOUT OF THE PLAYING ELEMENTS

This action involves the thermometers and the cursors.

E.3.b. ACTIONS AND CONSTRAINTS

Actions:

- Place the temperature cursor as close to the center of the thermometer of the teams as possible.

Constraints:

- At the start of the match, the team must place its thermometer cursor in a 0 zone of the team thermometer, without overflowing into another area.
- The robot will have to move the cursor to the center of the thermometer.
- If the opposing robot or SIMA moves the team's cursor significantly, then the team automatically wins the maximum points for the action.

E.3.c. POINTS

- **X points** for the area reached by the cursor, the number of points depends on the number indicated in the area in which the cursor points.

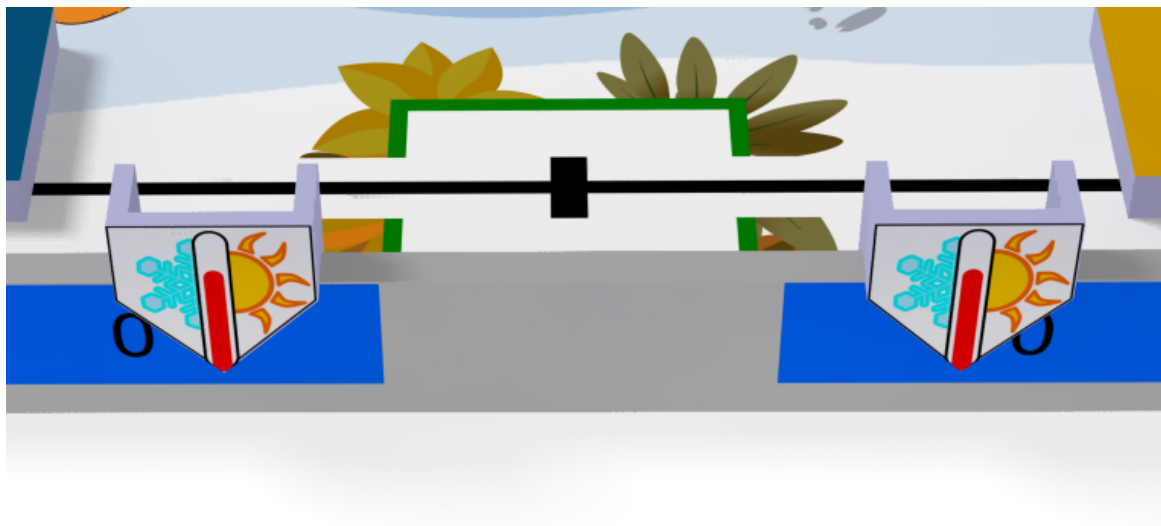


Figure 8: Thermometer and cursor in starting position.

E.4. NEST, SWEET NEST

Once the hazelnut harvest is over, it's time for mommy squirrel to return to the warmth of their nest, away from humans and the coming winter. But be careful, winter will be cold and mommy squirrel is sensitive to the cold!

E.4.a. DESCRIPTION AND LAYOUT OF THE PLAYING ELEMENTS

This action involves the robots and the nest (SIMA are excluded from this action).

E.4.b. ACTIONS AND CONSTRAINTS

Actions:

- At the end of the match the robots must be stopped in their nest.

Constraints:

- To be considered partially in the zone, the main robot must have a part of its vertical projection in the arrival area.
- To be considered completely in the zone, the main robot must have all of its vertical projection in the arrival area.

E.4.c. POINTS

- **5 points** if the team's main robot is partially in its own valid area.
- **5 additional points** if the team's main robot is completely in its own valid area.

E.5. MUNCH TIME!

That's it, the humans are gone! It's time to enjoy the hazelnut reserves — our hungry little squirrels will munch them without wasting any time.

E.5.a. DESCRIPTION AND LAYOUT OF THE PLAYING ELEMENTS

This action involves the SIMAs and the pantries.

E.5.b. ACTIONS AND CONSTRAINTS

Actions:

- The team can release one or more SIMAs and have them reach the pantries.
- All SIMAs (including the ninja SIMA) must participate in this action
- Squirrels must eat their hazelnut reserves to survive the winter.
- The SIMA are small independent mobile actuators designed by the team. For ease of identification, a harmonization of design and colors between the SIMA and the robot is desired.

Constraints:

- During the preparation the SIMAs (except the ninja SIMA) will be deposited in the starting area on the table (the nest) and all must be contained within the limits of the area. The colored lines and the border of the table (on its 22mm thickness) around the area are also included in the starting area.
- A team can put up to 6 SIMAs on the table (in addition to the SIMA in the granary), they must all be contained within their starting area and must rely exclusively on the table. If a SIMA moves outside the starting area (and outside of the granary) before the 85th second, it will be removed from the table and will no longer be considered in the match.
- The SIMA is validated as being in the zone if all or part of its vertical projection is in a pantry at the end of the match.
- The SIMAs must keep **an actuator moving and visible to the public** after the end of the match; while standing still to be considered eating. This actuator is not taken into account for the SIMA vertical projection. The SIMA don't have to be in zone to validate this point.
- The actions of "going to the zone" and "eating nuts" are independent of each other.

E.5.c. POINTS

- **5 points** per pantry occupied by the team
- **10 points** if all SIMA eat the hazelnuts.

F. POINTS

LET'S KEEP THE HAZELNUTS WARM!

- **2 points** per hazelnut crate in nest.
- **3 points** per hazelnut crate valid in a pantry.
- **5 points** per zone granting a bonus for the teams

TO FIND IS TO KEEP! Points for this action are scored for both teams.

- **2 points** per fridge empty of hazelnut crates at the end of the match
- **5 points** per fridge full of empty crates at the end of the match

NOT TOO WARM, NOT TOO COLD.

- **X points** for the area reached by the cursor, the number of points depends on the number indicated in the area in which the cursor points.

NEST, SWEET NEST.

- **5 points** if the team's main robot is partially in its own valid area.
- **5 additional points** if the team's main robot is completely in its own valid area.

MUNCH TIME!

- **5 points** per pantry occupied by the team
- **10 points** if all SIMA eat the hazelnuts.

G. APPENDIX

G.1. GENERAL DRAWINGS

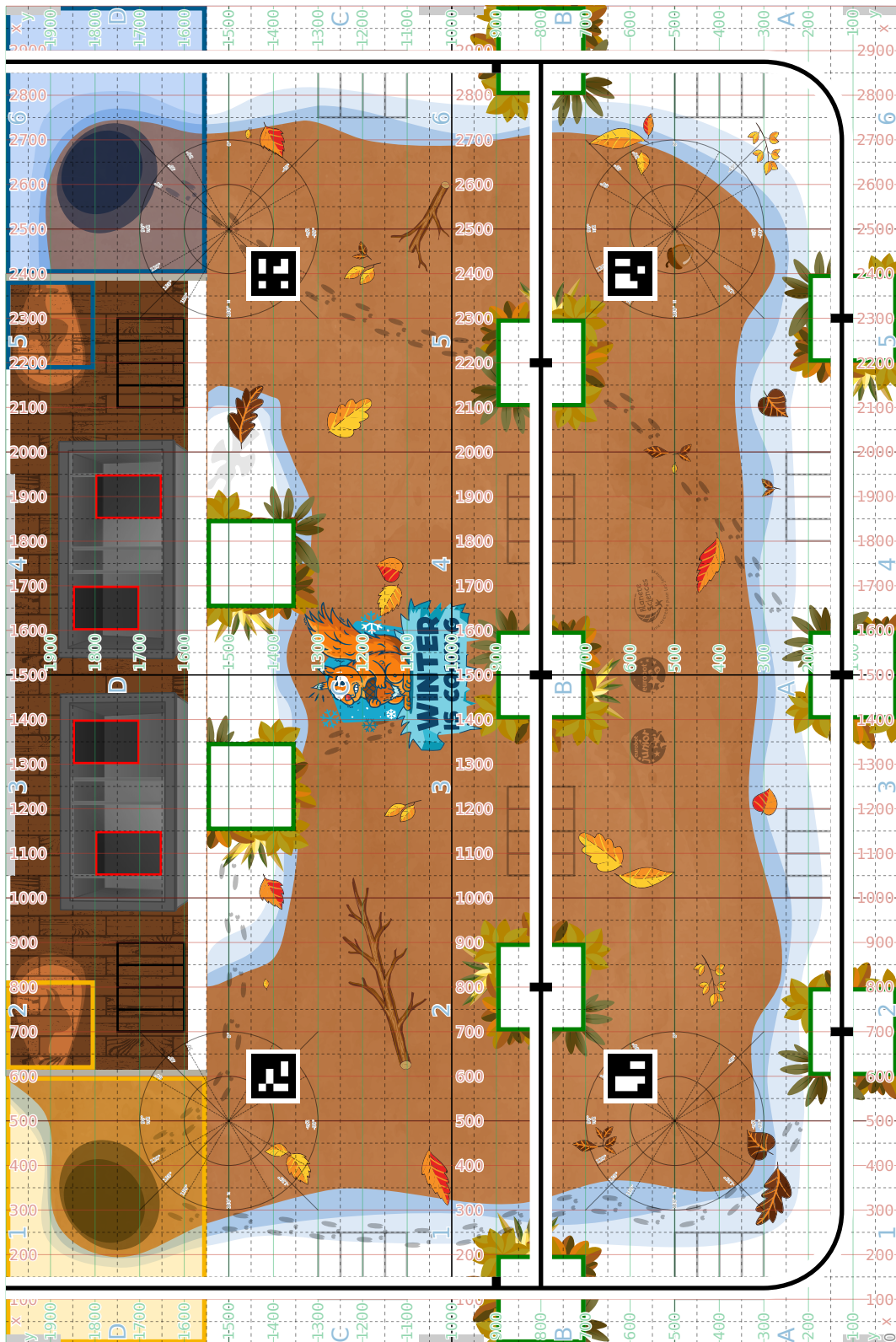
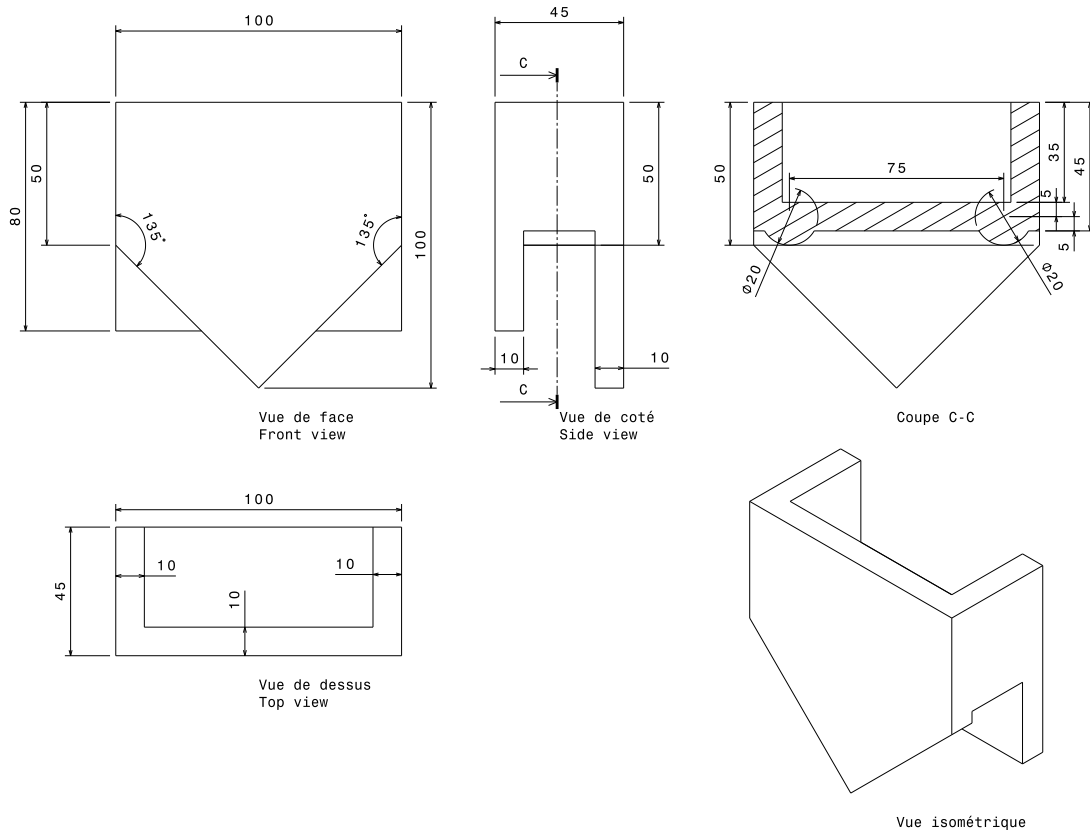
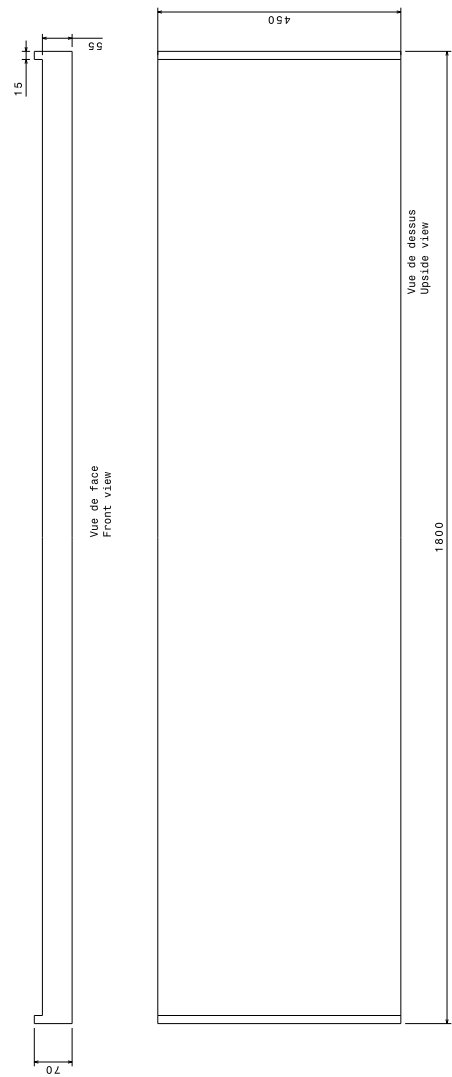


Figure 9: Top view of the playing area.

G.1.a. THE CURSOR



G.1.b. GRANARY



G.2. MATERIAL REFERENCES

Elements	Material or reference	Comments
Hazelnut box	Wooden pieces, 150 mm x 50 mm x 30 mm, painted in the team colors on 2 of these larger opposite sides, the other side stay clean, with a vinyl on which are the tags aruco 36 and 47. Their weight is not defined and depends on the organisation.	Giant Jenga TM piece, rounded edges may vary.
Empty crate	Wooden pieces, 150 mm x 50 mm x 30 mm, painted in black, with a vinyl on which are the tags aruco 41. Their weight is not defined and depends on the organisation.	Giant Jenga TM piece, rounded edges may vary.
The cursor	3D printed element	
Ledge	15 mm side ledge	
Game floor	Printed monomeric gripping vinyl	Ordering information will be provided by Planète Sciences

The material's density can change from one country to another. It is highly recommended that the teams try different types of materials since the weight may differ significantly.

G.3. COLOUR REFERENCES

Colors	References	CMYK	RGB
Team blue	RAL 5017 Mat	100% , 60% , 0% , 10%	0, 91, 140
Team yellow	RAL 1023 Mat	0% , 25% , 100% , 0%	247, 181, 0
Empty crate	RAL 9017 Mat	50% , 30% , 50% , 100%	42, 41, 42
Borders and non-colored elements	RAL 7032 Mat	15% , 10% , 25% , 20%	181, 176, 161

RAL hues can vary from a printed soil mat to another.