

EuroCore Coopetition Service Guidebook

Introduction

This guidebook aims to introduce teams to the EuroCore Coopetition Service. The testing period, scheduled from the 7th of June to the 21st of June, is meant for teams to test this service and collect feedback. As coopetition designers and developers of this service, we intend to iterate on this EuroCore Coopetition Service after the Testing Period, fixing any bugs or adding additional features teams might find relevant during the latter phase.

As explained in the Coopetition Rulebook, the EuroCore Coopetition Service is a subsystem of the EuroCore, primarily designed for the euRobin Coopetition, and thus not the EuroCore. Since the EuroCore is not yet available, the EuroCore Coopetition Service will act as the platform provider, fostering collaboration between teams and enabling software module transferability. This service allows teams to share their software, data, and expertise, as well as provide detailed descriptions of their teams and robotic platforms. Additionally, it plays a crucial role in orchestrating the Coopetition by systematically tracking the teams' overall performance.

Platform

1. Registration

The teams must access the following link and complete the registration process, as depicted in Figure 1.

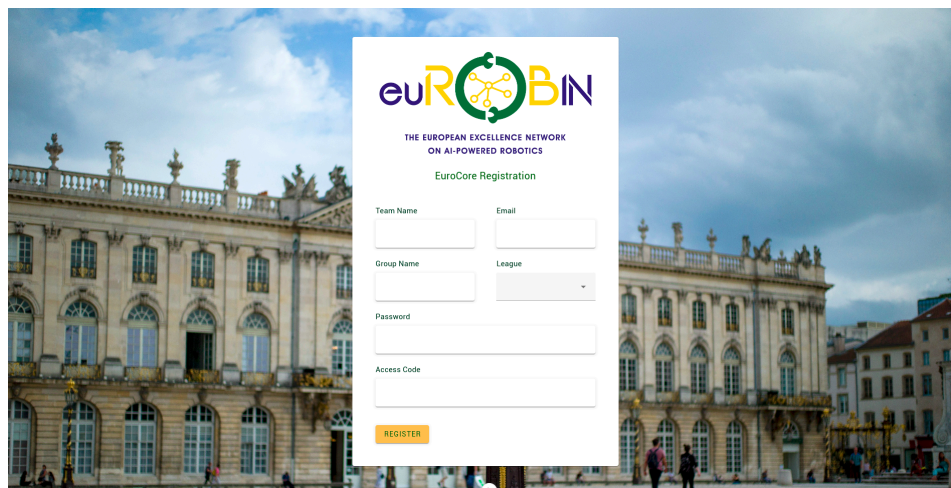


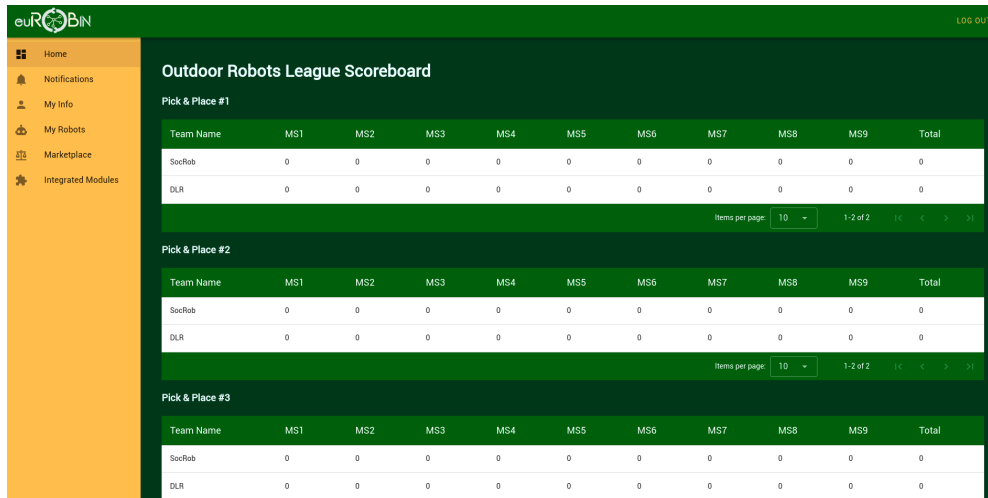
Figure 1. Registration page

An additional code is required to complete the registration (**PYVMX2G7**), preventing outsiders from registering on the platform. Once the registration is complete, teams are

directed to the EuroCore Cooperation Service “Backoffice”.

2. Home Tab

On this page, teams can find the information regarding the overall scores for the league they are competing in, as illustrated in Figure 2. In the Marketplace phase, this page is not so important, becoming more relevant in the On-Site Competition phase.



Outdoor Robots League Scoreboard

Pick & Place #1

Team Name	MS1	MS2	MS3	MS4	MS5	MS6	MS7	MS8	MS9	Total
SocRob	0	0	0	0	0	0	0	0	0	0
DLR	0	0	0	0	0	0	0	0	0	0

Pick & Place #2

Team Name	MS1	MS2	MS3	MS4	MS5	MS6	MS7	MS8	MS9	Total
SocRob	0	0	0	0	0	0	0	0	0	0
DLR	0	0	0	0	0	0	0	0	0	0

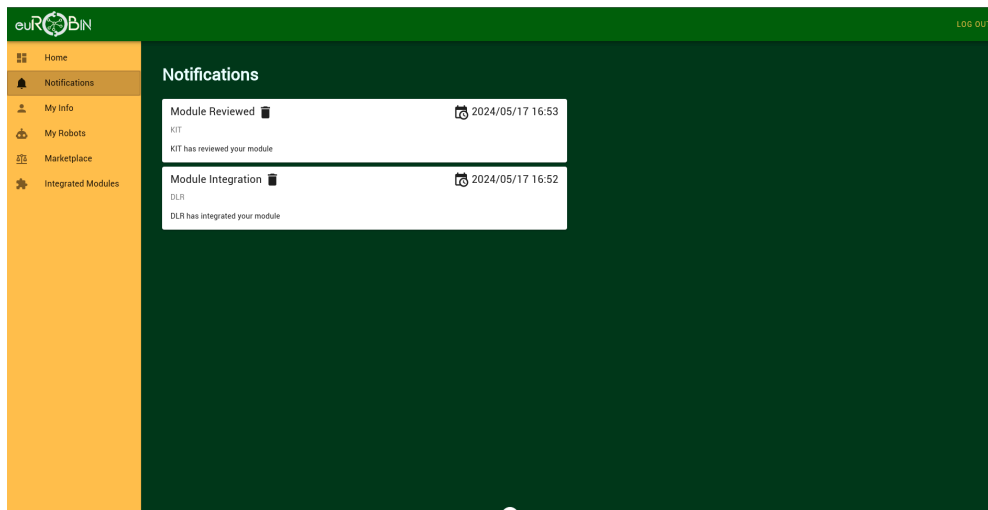
Pick & Place #3

Team Name	MS1	MS2	MS3	MS4	MS5	MS6	MS7	MS8	MS9	Total
SocRob	0	0	0	0	0	0	0	0	0	0
DLR	0	0	0	0	0	0	0	0	0	0


Figure 2. Homepage

3. Notifications Tab

This page is dedicated to inform every team of possible events concerning modules integrations, reviews, scores updates, and so on. Figure 3 illustrates this page design.



Notifications

Module Reviewed  2024/05/17 16:53
KIT
KIT has reviewed your module


Module Integration  2024/05/17 16:52
DLR
DLR has integrated your module

Figure 3. Notifications page

4. My Info Tab

On this page, teams can find all the information filled in the registration as well as some additional fields (depicted in Figure 4). Teams should fill in the missing information and correct any misspelled information.

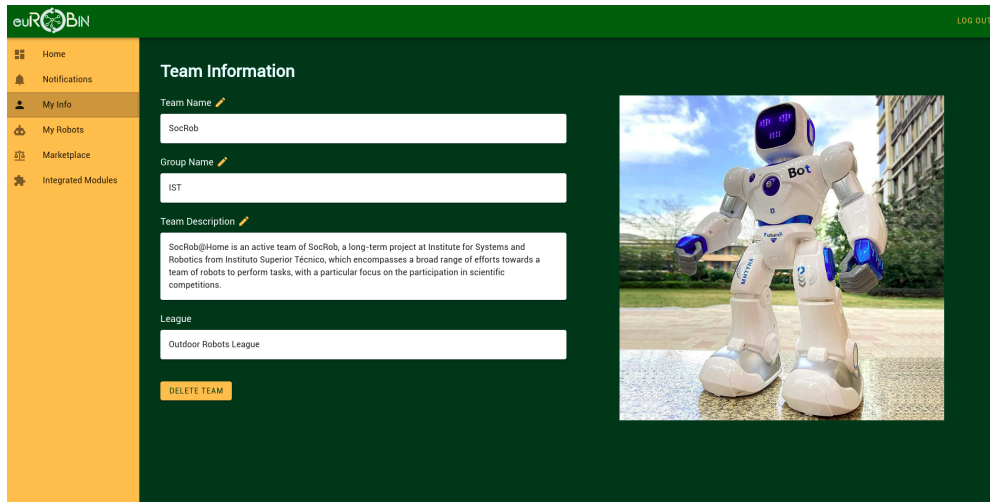
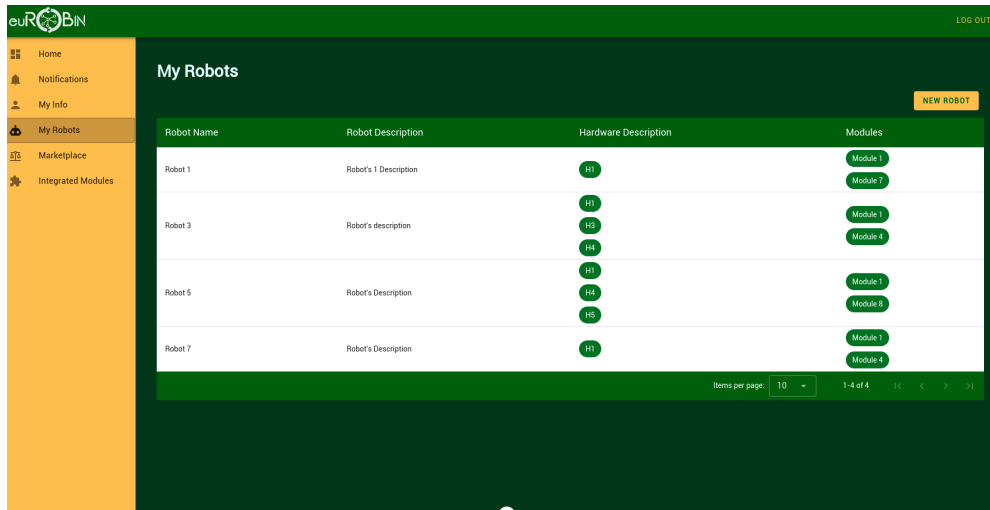


Figure 4. Teams information page

5. My Robots Tab



Robot Name	Robot Description	Hardware Description	Modules
Robot 1	Robot's 1 Description	H1	Module 1 Module 7
Robot 3	Robot's description	H3 H4	Module 1 Module 4
Robot 5	Robot's Description	H4 H5	Module 1 Module 6
Robot 7	Robot's Description	H1	Module 1 Module 4

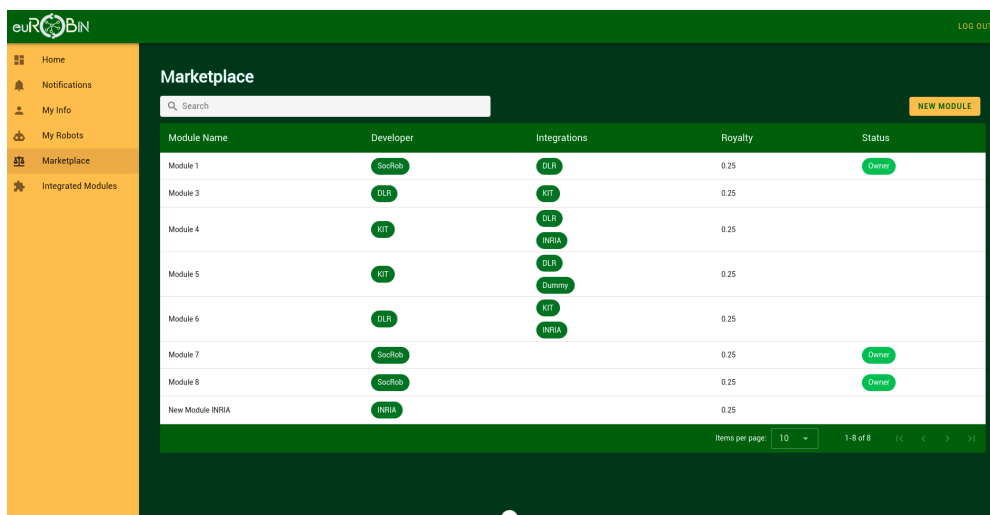
Figure 5. My Robots page

This page, illustrated in Figure 5, is meant for teams to upload information about their robots, i.e. name, description, hardware components, and software modules. The description field should include a list of the capabilities and functionalities of the robots.

Teams can only “link” modules to a robot if the same modules are already available in the marketplace, whereas hardware components work as a list, and teams can add as many elements as they need.

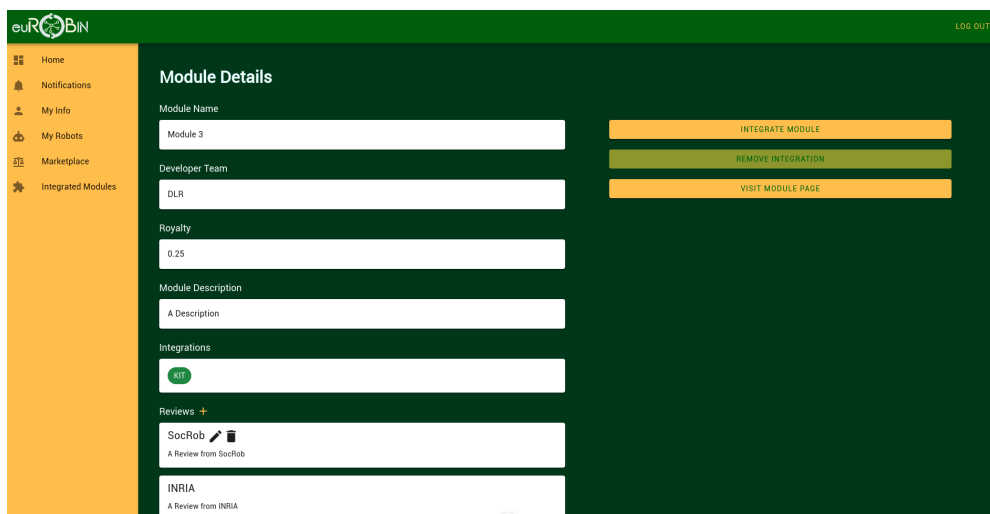
6. Marketplace Tab

On this page, teams can make their modules, such as software modules, data, and services, available to other teams. Instead of uploading these modules directly to the platform, teams provide links to the resources. For example, a software module can be linked to a remote repository or a dataset can be linked to a Roboflow universe page.



Module Name	Developer	Integrations	Royalty	Status
Module 1	SocRob	DLR	0.25	Owner
Module 3	DLR	KIT	0.25	
Module 4	KIT	DLR INRIA	0.25	
Module 5	KIT	DLR Dummy	0.25	
Module 6	DLR	KIT INRIA	0.25	
Module 7	SocRob		0.25	Owner
Module 8	SocRob		0.25	Owner
New Module INRIA	INRIA		0.25	

Figure 6. Marketplace



Module Details

Module Name: Module 3

Developer Team: DLR

Royalty: 0.25

Module Description: A Description

Integrations: KIT

Reviews +

- SocRob: A Review from SocRob
- INRIA: A Review from INRIA

Actions: INTEGRATE MODULE, REMOVE INTEGRATION, VISIT MODULE PAGE

Figure 7. Module Details page

Teams can browse other teams' modules in this tab, as depicted in Figure 6. If a team decides to integrate a module, they will be redirected to the Integrated Modules Page.

Additionally, teams can add reviews to modules, which is crucial for assessing module quality and addressing any specific issues, as shown in Figure 7. Teams must ensure that their modules are always up to date, particularly the links connecting the EuroCore Coopetition Service Modules to the actual assets.

7. Integrations Tab

As shown in Figure 8, this page lists all the modules a team has chosen to integrate. By selecting a module, the team must specify in which milestones the module is being used, as illustrated in Figure 9.

Module Name	Developer	Royalty
Module 3	DLP	0.25
Module 4	MT	0.25

Figure 8. Integrated Modules Page

While this is not crucial during the Testing Period, it becomes significantly important during the Coopetition, as it allows the Coopetition designers to track module transferability.

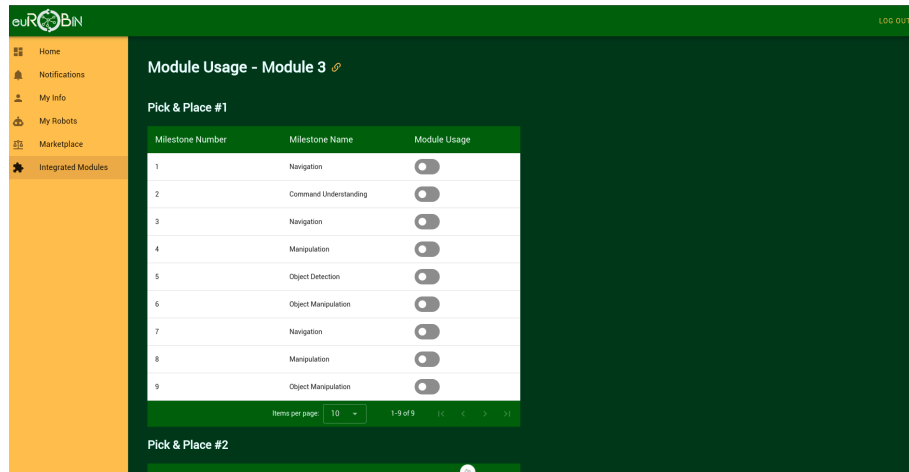


Figure 9. Module usage specification within the integrated modules page

Feedback

Teams should test all the features mentioned above and report any errors encountered. Additionally, teams are encouraged to provide suggestions for improving user experience. Feedback should be sent to rodrigo.serra@tecnico.ulisboa.pt and andre.s.silva@tecnico.ulisboa.pt with the subject line "**EuroCore Coopetition Service Feedback**".

Additional Notes & Future Work

Regarding future work, the EuroCore (EuroCore Coopetition Service) should include the following options and features:

- Module quality regulation
- Module quality marker
- Automatic tracking of module transferability, eliminating the need for teams to do this manually
- Linking modules to other European projects
- Incorporating a league for Developer teams, who participate exclusively by contributing modules, data, and services

The Marketplace should continue to operate beyond the Coopetition, independent of the EuroCore Coopetition Service. Although not yet available, the EuroCore will eventually host this marketplace, and the EuroCore Coopetition Service will use this infrastructure for future competitions. This will ensure that modules remain accessible to project partners at all times, even after the competitions take place.