

Call for Participation
RoboCup Brazil Open - @Home Virtual 2021

October 11 – October 15, 2021 (Online)

<http://www.cbrobotica.org/>

Committee members:

Executive Committee: Plinio Thomaz Aquino Jr.
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RoboCup is an international scientific initiative with the goal to advance the state of the art of intelligent robots through competitions.

The 2021 edition of the RoboCup Brazil Open will again be virtual. All categories will have new challenges, adapted so that you and your team can participate from anywhere in world, broadcast live on our Youtube channel (<https://www.youtube.com/competicaobrasileiraderobotica>).

The RoboCup Brazil Open @Home Virtual competition aims to develop service and assistive robot technology with high relevance for future personal domestic applications. It is the largest international annual competition for autonomous service robots and is part of the RoboCup initiative. A set of benchmark tests is used to evaluate the robots' abilities and performance in a virtual home environment setting. Focus lies on the following domains but is not limited to: Navigation and Mapping in virtual environments, Computer Vision and Object Recognition, Object Manipulation, Adaptive Behaviors, Behavior Integration, Ambient Intelligence, Standardization and System Integration. This year we will have 4 slots (with the possibility of more) for teams outside Brazil to participate.

This page describes the preregistration and qualification procedure for RoboCup Brazil Open @Home 2021.

Important dates:

Jul. 30, 2021 Deadline for submission of qualification material and preregistration. (Team Description Paper, Team Video, Team Website).

Aug. 15, 2021 Qualification announcement

Aug 30, 2021 Robot model reception

The qualification procedure consists of two simple steps:

Step 1) Qualification Material Submission (mandatory)

The team **MUST** send an email to the @home chair (Plinio Thomaz Aquino Jr. <plinio.aquino@fei.edu.br>) to participate in the qualification process for the RoboCup Brazil Open @Home 2021 event.

Please fill in the following information:

Team Name:

Country:



Affiliation:

Team Leader Name:

Contact information (E-mail):

Link to a team video:

Link to a team web site devoted to their efforts:

Team Description Paper (TDP) attached to the email based on the official template (<http://www.cbrobotica.org/index.php/papers-tdps/>).

The e-mail subject should be: **[@Home2021-Qualification] (YourTeamName)**.

Considerations:

- Only one platform can be specified per team.
- Only one team leader can be specified per team.
- Only one team video url can be specified per team.
- Only one contact email can be specified per team.
- All the publications and software to be evaluated for qualification ****MUST**** be in the team's website.
- The email must be encoded in UTF-8 using only the ISO-8859-1 character set.

Deadline: Sunday, July 30, 2021 23:59 BRT

Step 2) Robot Model Submission:

Qualified teams **MUST** send the robot model to be used during the competition via email to the @home Chair (Plinio Thomaz Aquino Jr. <plinio.aquino@fei.edu.br>).

Please follow the template below:

Team Name:

Country:

Affiliation:

Virtual robot model attached to the email based on the official simulator.

The e-mail subject should be: **[@Home2021-RModel] (YourTeamName)**

The Technical Committee will inspect the robot models to verify they are compatible with the simulator and that all sensing and actuation is performed at component level and not bypassed by reading the variables of simulator such as position, pixel collision, etcetera.

Deadline: Sunday, August 30, 2021 23:59 BRT

Instructions for the Qualification Material and Instructions for the Team Video: In order to proof a running virtual robot model, each team has to provide a qualification video.

As a minimum requirement for qualification, the video must show the robot(s) successfully solving a task involving the following abilities robust full-stack navigation (navigation, self localization, online mapping and collision avoidance), object manipulation, and object recognition.

Remarks:

- The shown task execution must look continuous, smooth, and robust.
- When speeding-up video, the speed factor must be indicated.
- The language spoken and shown in the video must be English. When using any other languages, translations must be included.
- We strongly suggest upload videos to Youtube.

Copyright note: When sending videos for qualification, teams implicitly grant permission to RoboCup Brazil Open @Home and the RoboCup Brazil to copy, modify, distribute, upload, publish, and use the multimedia material to promote the event and the league at convenience.

Instructions for the TDP

The TDP is an 6-pages long scientific paper, detailing information on the technical and scientific approach of the team's research, while including also the following:

- TDP
- Group's research focus and interests.

- Innovative technology and scientific contribution
- Please specify when your research is being used by other teams or research groups
- Please specify when you are using software from other teams
- Brief, general description of the system when solving a [domestic] task (portability to the real world)
- The impact of your research must be clearly visible
- Maximum length is **6 pages** (including figures and citations)
- TDP length is **6 pages** (submissions over this hard limit will be discarded).

Remark: The language for the TDP, its graphics, tables, images, and all additional content must be English. Content in other languages must be translated.

Copyright note: All TDPs sent for qualification may be made publicly available in the RoboCup Brazil Open @Home Wiki for further reference. On submitting, teams implicitly grant permission to RoboCup Brazil Open @Home and the RoboCup Brasil to copy, distribute, upload, publish, and use the manuscript to promote the event and the league at convenience.

Exceeding the number of pages will automatically void your application.

Instructions for the Web site

While the TDP goes into detail about the technical and scientific approach of the team's research, the website should be designed for a broader audience, including:

- Photos of the virtual and/or real robot(s)
- Videos of the virtual and/or real robot(s)
- Description of the approaches and information on scientific achievements
- Relevant publications (last 5 years, preferably available to download)
- Link to repositories with software for the community
- Team members

- Previous participation in RoboCup
- Participation and rankings in local RoboCup tournaments

Remark: No IP addresses will be accepted as website.

Remark: Only documented active software repositories are considered as contributions to the league. It must be clear and straightforward to other teams how to use your software.

Qualification materials will be judged by the following criteria:

- Team description paper (clarity, scientific contributions, re-usability by the league, applicability in real world)
- Performance in local tournaments and previous competitions.
- Qualification Video (number of demonstrated abilities, integration, difficulty of the task, portability to the real world)
- Website (multimedia, publications from last 5 years, downloadable content, open-source software and other contributions)
- Relevant Scientific contribution/publications (downloadable papers and open-source software)
- Novelty of approach (what you do is new for @Home)

We encourage teams to produce self-explicative videos for a general audience where complex tasks are solved. For Team Description Papers focus on the scientific contribution and avoid brief descriptions of the overall system.