Software Survey 2026

Team name

Warthog Robotics

Which division(s) are you applying for? If your used software differs between divisions, please fill out the survey once per division.

Large Size (height < 190 cm, weight < 80 kg)

Is your software fully or partially OpenSource? If so, where can it be found?

It is partially open source and can be found at https://dev.azure.com/warthogrobotics

Are you using any software developed by other teams? If so, list every component that you are reusing and the team that originally developed it.

We are using Booster's RoboCup Demo as the base for our software development

Are you using any datasets in your research? If you are using your own datasets, are they public?

Not yet

Please list the scientific publications your team has made since the last application to RoboCup (or if not applicable in the last 2 years).

This is our first year in this league, we still don't have any publications with humanoid robots, but our publications in other leagues are listed here: https://wr.sc.usp.br/o-que-fazemos/#pesquisa

Are there any other contributions you would like to share with the RoboCup community?

N/A

Which approach are you using to generate the robot walking motion?

We are using the skill provided by Booster

Which approach are you using to generate other motions of the robot (e.g. kicking, standing up)?

We are mostly using the skill provided by Booster and developing our own kick procedure that allows the robot to correct itself during the kick movement if the ball or any other game element moves

Do you have a kinematic or dynamic model of your robot? If so, how did you create it (e.g. measure physical robot, export from CAD model)?

Not yet

What approaches are you using in your robot's visual perception?

We are using the one provided by Booster that is based on Yolo v8

Are you planning with objects in Cartesian or image space? If you are using Cartesian space, how do you transform between the image space and cartesian space?

The approach uses field markings, such as lines crossing, and field dimensions to convert the values

Do you have some form of active vision (i.e. moving the robots camera based on information known about the world)?

The robots move their heads when the environment changes and it need more information to locate themselves. The main focus right now is only to keep track of the ball.

What approach are you using to localize your robot?

We are using the solution provided by Booster

Is your team performing team communication? Which communication protocol are you using?

Not yet

What approach are you using for navigation? Are you avoiding obstacles?

We are using the solution provided by Booster

How is the behavior of your robots structured? (e.g. Behaviour Trees)

Behavior Tree

Are you simulating your robot? If so, which simulator are you using and for what purpose do you use simulations?

Not yet, we still don't have the IT infra for that

What operating system is running on your robot and which middleware are you using (for example Ubuntu 22.04 and ROS2 Galactic)?

Ubuntu 22.04 and ROS 2

Is there anything else you would like to share that did not fit any previous question?

N/A