Software Survey 2026

Team name

THMOS

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

Small Size (height < 110 cm, weight < 15 kg);Middle Size (height < 125 cm, weight < 25 kg)

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

No

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.

No

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

Yes, we used a lot motion tracking date, they r collocted using motion tracking devices

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

None

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

No

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

RL

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

RL

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)?

solidwork

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

vslam

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?

We primarily plan trajectories and motions in 3D Cartesian space. For transformation between image space and Cartesian space, we use a calibrated camera model with perspective projection and inverse projection, combined with extrinsic/intrinsic parameters and depth information to map 2D pixel coordinates to 3D world coordinates and vice versa.

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

yes

What approach are you using to localize your robot?

vslam

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

yes UDP

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

A*, yes

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

Behaviour Trees

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

mujoco, test strategy

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 ROS2 Galactic

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

no