RoboCupJunior Soccer TDP form

Welcome to the RoboCupJunior Soccer Technical Documentation Form!

This form will guide your team through writing a clear, complete report of your robot and your work.

1.
   Who fills this out?

   • Every team member must help—your work here counts toward your competition score.

   • If a section doesn't apply to your robot, just write "N/A."

2.
   Why does it matter?

   • It help us to do more efficient interviews

   • Future teams will learn from your design and ideas.

3.

Tips for success:

   • Keep notes, photos, and sketches as you build during the year—they make writing this form much faster.

   • Write in short, clear sentences—focus on the key facts.

4.
   What happens next?

   • Your completed form is private until competition time.

   • After the event, it will be published alongside your poster.

Helpful links
• Past years' reports: https://github.com/robocup-junior/awesome-rcj-soccer
• RoboCupJunior Discord: https://discord.gg/eA4fwnN5
• RoboCupJunior Forum: https://junior.forum.robocup.org/
• Scoring rubrics (read before you start): https://robocup-junior.github.io/soccer-rules/2025-soccer-draft-rules/scoring.html

munakou.aegis@gmail.com アカウントを切り替える

ファイルをアップロードしてこのフォームを送信すると、Google アカウントに関連付けられている名前、メールアドレス、および写真が記録されます

* 必須の質問です

For any question while filing this form or in general about RCJ use our Discord server or the RoboCupJunior Forum

RCJ Discord

What is your team's name? *

回答を入力

What league do you participate in? *

○ Open League

○ Lightweight League

Where are you from? *

回答を入力

If other teams have questions about your robot, now or in the future, what email *
address(es) can we publish along with this document for people to reach you?

(You can put in multiple email addresses, like multiple team members, an email for the whole team or both. Feel free to share other ways of communication like Discord handles)

回答を入力

Team Social Media Links (if you have any)

回答を入力

Upload a photo of your whole team with your mentor and robots

Note: This is not mandatory and will be published along with your TDP if you choose to upload something

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

What are the names of the team members and their role(s)? *

example:
John Doe: Circuit and PCB design
Jane Doe: Programming
...

回答を入力

How often did your team meet? *
(e.g. 90 minutes once per week or a day every weekend.)

回答を入力

Where did you meet to work on your robot? *
(e.g. a robotics room at school, at some other place, one of your homes, school library etc.)

回答を入力

When did your team start working on this year's robot? *

回答を入力

Which RoboCupJunior competitions have you competed in and in which leagues? *
Example:
German Open 2023: 1v1 Soccer Entry Standard Kit
German Open 2024: Lightweight League
European Championship 2024: Lightweight League
...

回答を入力

Which parts of your work received the most contribution from your mentor? *

Example:
We couldn't manage to get our I2C compass to work, so our mentor helped us fixing the code

回答を入力

How did you manage the workload? *
Tools you used to break the work down, assign the work and communicate.
Example:
We communicated through a WhatsApp group and assigned the tasks using monday.com.
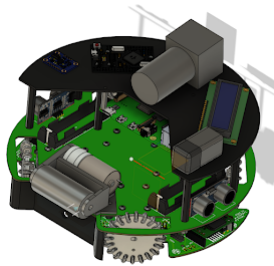We also used GitHub for issues and code.

回答を入力

Which AI tools did you use? *
It's not only fine to use AI for some of your work, it is also recommended to learn to use it well.
Think of things like your code, your poster, your mechanical and electronic designs to remember what you used.
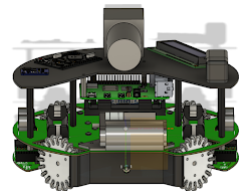
回答を入力

Robot 1
The photos of the first robot

Robot 1 Overall View *
Your entire robot in one photo

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。
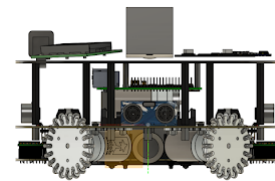
⬆ ファイルを追加

Robot 1 Front view *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加
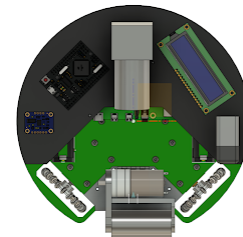
Robot 1 Back view *

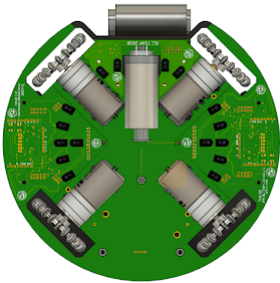サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

Robot 1 Top View *

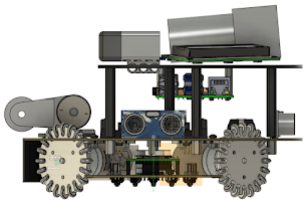サポートされているファイルを 1 個アップロードします。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

Robot 1 Bottom View *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。
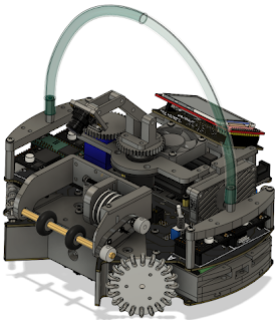
⬆ ファイルを追加

Robot 1 Right View *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

Robot 1 Left View *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

How do you find your position inside the field and how do you use that position to *
move your robots around?

回答を入力

Robot 2
The photos of the second robot

Robot 2 Overall View *
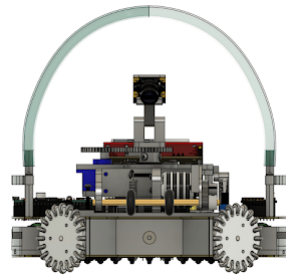Your entire robot in one photo

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。
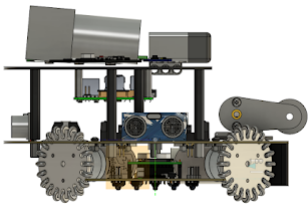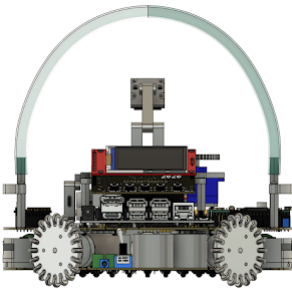
⬆ ファイルを追加

Robot 2 Front view *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

Robot 2 Back view *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

Robot 2 Top View *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加
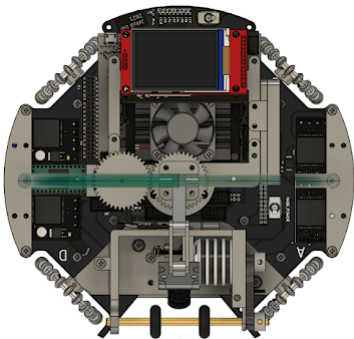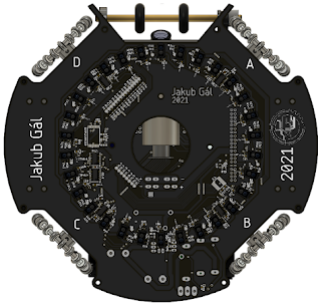
Robot 2 Bottom View *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

Robot 2 Right View *
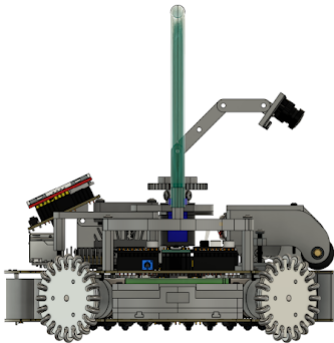

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

Robot 2 Left View *

サポートされているファイルを 1 個アップロードします（image）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

How did you design the mechanical parts of your robots? *

Explain which programs you used and how you came up with this design.
Explain what different things you considered to come up with the design.
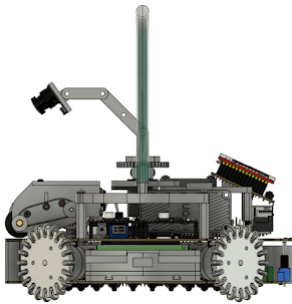Explain what you needed to change to make the design better.

回答を入力

How did you build your design? *

Explain which machines you used to build the design.
Explain what services of companies you used to have parts manufactured (e.g. PCBs and mirrors are often made externally)
Explain any changes you needed to make to your design to make it work.

回答を入力

How many motors have you used and why? *

This part is for describing how many motors your team used and why you chose this many motors for your robots' movement. If you have built your own wheels, it's also recommended to explain why and how you designed the wheels. Please mention any part numbers of parts you used here as well as in the Bill of Materials (BOM) form.

回答を入力

If your robot has a **kicker**, explain how you designed and built the **mechanics** of the kicker

回答を入力

If your robot has a **dribbler**, explain how you designed and built the **mechanics** of the dribbler.

回答を入力

CAD design files

Upload all the design files you have of your robot to a GrabCad/GitHub repo and put the link down here. the link must be accessible for anyone when you submit this form. The link will not going to be shared with other teams before the competitions and it's **not mandatory** to provide these files. However, based on the rubrics, you will get **extra points for sharing design files.**

回答を入力

Mechanical Innovation *

Think about the parts of your robot's mechanical system that you are most proud of and try to explain what innovations you came up with that makes you proud. Explain those innovations with as much details as you want.

回答を入力

## Photos of your mechanical designs highlights

Add up to 5 photos from your mechanical design that you are most proud of. It can be a CAD design screenshot, or a real photo from the finished part.

最大 5 個のサポートされているファイルをアップロードします（image）。1 ファイルあたりの最大サイズは 10 MB です。

⬆ ファイルを追加

Provide us with a block diagram of your robot's electronics

This part is like a whiteboard drawing that shows others how your electronics are built. You don't need to go too much into details. Imagine you are drawing this on a whiteboard to explain to a friend what different electronics parts your robot has. The following photo is an example of what you need to make.
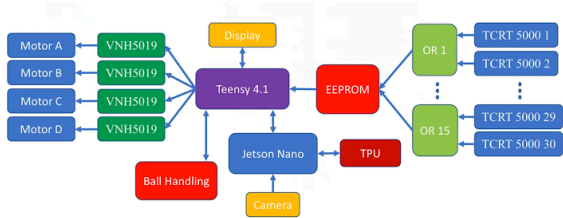
サポートされているファイルを 1 個アップロードします（PDF、document、drawing、image、または presentation）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

How does your power circuits work? *

What voltage levels does your robot use and how do you create them (Linear regulators, buck/boost converters etc...)
Example: Our robot has a 14.4V battery pack that is regulated to 5V for our Arduino and used directly by the motor drivers.

回答を入力

How do you drive your motors? Explain the circuits you use for that *

回答を入力

What kind of micro controller or board do you use for your robot? Why did you decide to use this part for your robot? If you have more than 1 processor, explain each one separately. *

回答を入力

How does your ball detection sensors and/or camera[s] work? *

回答を入力

How does your line detection circuits work? *

回答を入力

What sensors do you use for navigation and how are these sensors connected to your processor? What sensors do you use to find your position in the field? What about the direction your robot faces? *

回答を入力

How do you drive your kicker system? How does the circuit make the kicker work? *

回答を入力

How does your dribbler system work? What components and circuits did you use to drive it? *

回答を入力

Schematics of your robot

If you designed schematics (circuit diagrams) for your robot, upload a PDF or picture of the schematics here

Not mandatory but helps community to grow and will get you some extra points for documentation that counts into final score.

最大 5 個のサポートされているファイルをアップロードします。1 ファイルあたりの最大サイズは 10 MB です。

⬆ ファイルを追加

PCB of your robot

If you designed a PCB for your robot, upload a PDF or picture of the PCB here

Not mandatory but helps community to grow and will get you some extra points for documentation that counts into final score.

最大 5 個のサポートされているファイルをアップロードします。1 ファイルあたりの最大サイズは 10 MB です。

⬆ ファイルを追加

Innovations *

What part of your electronics are you most proud of? Explain these parts in details and explore any innovation you came up with make this designs work

回答を入力

Photo of your circuit boards highlights *

Add up to 5 photos from your finished and soldered circuits that you are most proud of. It can be a CAD design screenshot, or a real photo from the finished part.

最大 5 個のサポートされているファイルをアップロードします（image）。1 ファイルあたりの最大サイズは 10 MB です。

⬆ ファイルを追加

How do you use your processor to move your motors? *

回答を入力

How do you find where the ball is? How do you read the data from the ball detection sensors or camera? *

回答を入力

How does your algorithm work to catch the ball? Is there a difference between your robots in how they move towards the ball? Explain the differences. *

回答を入力

How does your robot find the lines to stay inside the field? What algorithms do you use to avoid going out of bounds? *

回答を入力

What algorithms do you use to score goals? How do you use your kicker and dribbler to handle the ball? *

回答を入力

What algorithms do you use to avoid the opponent team scoring? How do your robots defend your own goal? *

回答を入力

Do your robots communicate with each other? How do you use this communication to your advantage?

回答を入力

Innovations *
Tell us about any specific code or algorithm you build that you are the most proud of. Explain how you came up with this innovation and how it helps you win more games.

回答を入力

GitHub link
Give us a link to your GitHub repo containing all your firmware/software.
Consider making one if you don't have one.
(Based on the rubrics document, you can get extra points if you publish your code)

回答を入力

Bill of Materials (BOM) *
List all **the main parts** (e.g. your processor, motors, wheels, sensors, cameras, major electronics and mechanical parts) used in your robots with their count and unit price

Use the following template for the parts:

[Template Link @David]

サポートされているファイルを 1 個アップロードします（PDF、document、またはspreadsheet）。最大ファイルサイズは 10 MB です。

⬆ ファイルを追加

How much did it cost you to build your robots? *
Please provide three numbers, one for the final components which went into your robot, one for money you spend for trial and error building your robots and finally the cost of getting the environment ready to build your robots (building the field, the carpet, soldering iron, oscilloscope, etc). Please provide the currency you used in your calculations and the exchange rate to US Dollars at the time of filling this form.

Example:
Robots (cost of components that are in your robots right now): 3000 Euro each
Experiments (failed builds, broken hardware etc.): 2000 Euro
Environment (fields, balls, etc.) : 1000 Euro
1 Euro= 1.14 USD

回答を入力

How did you gathered the funds to build the robots? *
Example:
30% sponsors
20% school
50% parents

回答を入力

How affordable was it to compete in RoboCupJunior Soccer? *

    1   2   3   4   5   6   7   8   9   10

Very Expensive ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ Very Affordable

Have you checked all of your answers? *
○ Yes!

We publish TDPs and posters during or after the competition as described in the beginning *
○ Yes, we acknowledge everything submitted in the above form can be published.

次へ   フォームをクリア

Google フォームでパスワードを送信しないでください。

Google フォーム