

Handbook

FLL Final Central Europe

Contents

- 1 Organization of the trip 2
- 2 Search for sponsors and supporters..... 4
- 3 Schedule 6
- 4 Official language: English..... 6
- 5 Live Challenge..... 6
- 6 Awards..... 8
- 7 International Events 9
- 8 Checklists 10
- Finally: Have fun!..... 11



Dear Team,

Congratulations, you did it! You are one of the best FLL-teams of your Semi-Final and qualified for the FLL Final Central Europe (CE Final)! We are Viviana Sutedjo (formerly team GO ROBOT) and Tim Waibel (formerly team Cassapeia) and we wrote down a few tips and information from our experience. This should help you with the planning of your trip and the preparation for the upcoming tournament so you don't get surprised at the day of the final. Please consider that we only give you advices. The final information you'll get from Hands on Technology e.V.. In case of doubt, the information from HoT always applies.

Basically, many things will be just like at your previous tournaments. The most important changes are that the official language of the event will be English and that the teamwork-task gets replaced by the so called "Live Challenge". But if you read this handbook carefully and use our tips for the preparation, there should be no obstacle to a successful tournament!

But despite all the preparations and the stress with the planning, please don't forget the most important thing: Have fun! Because the most important goal of the tournament is that you have fun at everything you do. The CE Final is a great place to exchange with other teams, celebrate together and learn from each other!



1 Organization of the trip

Depending on where you come from, travelling to the CE Final venue in Bregenz will become more or less complicated. We have collected a few tips on general organization and accommodation options.

1.1 Duration of the trip

If you have the possibility of arriving on Thursday, you can go visit the city on Friday morning (together with other teams). Lake Constance and the historic old town of Bregenz are popular among tourists. Alternatively, you could do this on Sunday, even though you will probably be exhausted after two days of competition. If you like exploring the nature, we recommend hiking on - or just enjoying the view from the "Pfänder", which is a mountain near Bregenz.

1.2 School absence permission

If the event is not during school holidays, you will miss a few days of school. Therefore, you probably need an absence permission from your school's principle. Get in contact with your school as soon as possible! Usually, they are very enthusiastic about it and are happy that their students successfully engaged in an extracurricular activity and are so successful with that. But nevertheless, there are sometimes things that need to be discussed first, for example class tests during that time or school trips. Because of that it is very important to arrange things with the school's principle and the respective teachers very early and find solutions together (find a different date for the class test, directly travel to the school trip after the event,...). Most times you just need a short letter, where you or your coach explain the FIRST® LEGO® League and that you now qualified for the "FLL championship Central Europe" and that you need absence permission for the students. If you are a school team, your teacher can also take care of that.

1.3 Visa/Passports/Driver's license

If you are not from Austria, you will probably need a valid passport or ID card for entering Austria. Make sure you apply for it in time but also have a look at the website of the responsible authority shortly before your trip.

- Please also bear in mind that team members who don't own a passport of the EU-countries or Switzerland may need to apply for a visa at their embassy. This application can take several weeks!
- Depending on the country, there are several rulings about the **entering of unaccompanied minors!** Inform yourself early if you need a consent form of the parents.
- If you plan to use rental cars, make sure that all drivers have an international driving license.

1.4 Internet

If you need internet, for example for your research presentation, ask the organizer about internet at the venue. In general, we recommend you to prepare everything to be independent from the internet since the organizer also can't guarantee that the WiFi-network works during the event.

1.5 Cash

If you are from a country where you don't pay Euros (Hungary, Poland, Czech Republic and Switzerland), you may have to change money in advance. Before your journey starts, think about how much cash you need for paying the hotel or other things and for having as pocket money with

you. Most times it is easier if you select **one person who changes money for the whole group** to pay for example for dinners at restaurants.

1.6 Journey

1.6.1 By car

Travelling by car is probably the easiest way for most of the teams, as you are not restricted on your luggage, you are flexible on site and you don't have to care for anything in advance.

1.6.2 By bus

If you have a longer journey and you don't want to travel by car or you don't have enough drivers for the whole team, you may consider travelling by bus. Are there any other teams coming from your region or living on the way to Bregenz (or is your town on the way of any other team)? Even better! Renting a bus together (and ideally staying in the same hotel) is not only pretty cheap (compared to train/plain) but also very relaxing. Even the coaches can relax, because they don't have to drive by themselves. It also offers the opportunity to carry a lot of luggage and exchange with the other teams during the bus trip or party together!

1.6.3 By Train or long-distance bus

If you can't or don't want to travel by car and the organization of a bus is too time-consuming or expensive for you, you may want to travel by train or long-distance coach. The bus is probably even the cheaper way, although you are a bit restricted concerning your luggage. Some far-distance trains arrive directly at Bregenz, even though you might have to change to local public transport. The central station is located in the center of Bregenz, so the Festspielhaus and most hotels should be in walking distance.

1.6.4 By airplane

For teams with a long travel distance, travelling by plane could be the best option. As Bregenz doesn't have its own airport, you could consider Zurich and Friedrichshafen airports. Even though Friedrichshafen is pretty near, you probably won't find direct flights as it is pretty small. Zurich is around 2 hours from Bregenz, but has many flight routes. If you are considering coming by plane, we have more tips for your team. Just contact us at the e-mail address (see last page of this handbook).

1.7 Accommodation

Hands on Technology e.V. has already reserved spaces in some hotels, details and booking information can be found here: https://www.first-lego-league.org/files/inhalt/fll_de/fll/Regionen/Finale/2018_19/FLL_2018_19_Final%20CE_accommodation%20tips.pdf

- JuFa Hotel Bregenz
Mehrerauerstraße 5, 6900 Bregenz
The hotel is in walking distance to the venue (distance ca. 350m).
- Gästehaus Lamm Bregenz
Mehrerauerstraße 51, 6900 Bregenz
The hotel is ca. 1 km away from the venue.

There are many other hotels in Bregenz, including the following:

- Hotel Helvetia
Montfortstraße 13, 6900 Bregenz
The hotel is in walking distance from the venue (distance ca. 700m).
- Hotel Ibis Bregenz
Sankt Anna Straße 11, 6900 Bregenz
The hotel is in walking distance from the venue (distance ca. 600m).

2 Search for sponsors and supporters

There is another important aspect that you must consider for your planning: the financial aspect. In order to participate in the tournament, you will for example have the following costs: registration, catering, accommodation, journey, etc. Those costs have to be paid either from your team members/their parents or by sponsors. In the following chapter, we have collected some tips about how to search for sponsors:

2.1 Associations

If you want to acquire money via sponsors, we recommend doing that with an organization. Because that makes the search for sponsors easier since organizations are able to issue a contribution receipt. For some sponsors, this is a requirement for their support.

If you are a school-team, you can contact the **booster club of your school**. When you or the booster club search for sponsors, point out that the booster club is able to issue contribution receipts.

If you aren't a school team, you have different possibilities: One way is to look for an out-of-school organization (e.g. sports club, music club, ...) that accepts the donation for you. If you are planning to take part in FLL for some more years, it is worth to found an organization by yourself. Inform yourself about the foundation of an association and keep in mind that it needs some time.

2.2 Potential sponsors

For example, the following companies are suitable as sponsors:

- Companies from the IT- or Mechanical Engineering sector in general
- Companies from your region
- Banks
- Health insurance funds
- Foundations

Of course, you can also contact all other companies.

When searching for sponsors, it might be helpful to use the local press. With **newspaper articles, television and radio reports**, you can raise awareness amongst possible sponsors. Another way can be to ask at companies of parents/coaches/relatives/friends if a sponsoring is possible. It doesn't matter which sector they are in.

2.3 Ways of support

The support doesn't always have to be financial, but also some new team T-Shirts, other team clothing or giveaways can help you. Show the sponsors that you are **thankful for every kind of support**.

2.4 Give something back to the sponsors

Make offers to your sponsors how they can benefit from supporting you. Possibilities are showing presentations of the Robot-Game or the research presentation at costumer events or at stands at trade fairs (many companies like to have the robot-game as eyecatcher). Most teams also print the logos of the companies on their team clothing or on banners. Another idea is to distribute freebies at the tournament or to name the sponsors in a news article about you and the event.

2.5 After the tournament

Tell the sponsors about your results after the tournament, send them pictures and reports of the event and don't directly break tie. Take care that you leave a positive overall impression because you never know if you maybe need them again as sponsors. Therefore, we recommend designating one coach/parent before your tournament that is responsible for taking pictures/videos during the event that can be used for sponsor reports or other presentations. Often the team members profit from the contacts to the sponsors even after their FLL-time, for example because it is easier to get internships or a job as working students at the respective company. So: staying in contact is very important!

3 Schedule

In contrary to the regional tournaments, the CE Final takes place at two days (Friday & Saturday). On Friday, the tournament starts in the afternoon with the Live Challenge and practice rounds at the robot-game tables. You also have a lot of free time to exchange or play games with other teams. In the evening the **team party** takes place where you also get dinner. Therefore, you will receive more information by Hands on Technology e.V. On Saturday the event starts with the official opening. The rest of the day is like the typical schedule of the other tournaments with the award ceremony at the end.



4 Official language: English

At the CE Final teams from up to 8 different countries compete against each other. To avoid advantages in the evaluation for some teams, the official **language of the event is English**. That means for you: The moderation of the event is completely in English and also the Judges and Referees talk to you in English.

But that probably sounds worse than it actually is: You should translate your research presentation to English and also explain your robot in English. But of course you are allowed to help each other translating questions from judges (which could also show good teamwork!). You are allowed to ask an adult interpreter to translate the questions and answers. Among your team members you are of course allowed to speak your language (for example during the Live Challenge).

5 Live Challenge

One feature of the CE Final is the so called “Live Challenge”. Since a few seasons ago, this is an extra evaluated category on the first tournament day and it replaces the Teamwork-Evaluation-Game. The Teamwork-Evaluation will now be shortened to an interview during the second tournament day.

In the Live Challenge, you will get an unknown robot as well as 3 tasks in different levels. Your task is to program a robot and if necessary build attachments to fulfill as many of the tasks as possible. You get a laptop for that and you do not need to bring you own LEGO® parts.

5.1 Procedure

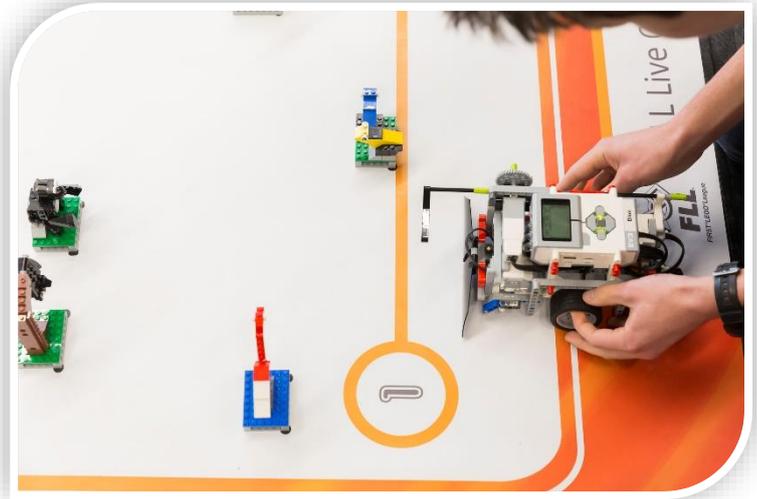
The Live Challenge always takes place in the afternoon of the first tournament day. The full evaluation takes 30 minutes and consists of:

- 10 minutes, in which the judges explain the robot and the tasks
- 20 Minutes, in which you can try to solve as many of the 3 tasks as possible with the given robot

After you have chosen your task, you will get a sheet of paper with details about your robot like motor- and sensor-ports, gear transmission ratios etc. **In the 20 minutes given to solve as many tasks as possible, the number of attempts is not limited.** For the evaluation, the number of solved tasks and the needed time are relevant.

5.2 Tips

If it doesn't work as planned, the biggest mistake you can make is to panic near the end of the evaluation time and to get angry at your teammates. If you realize you're not going to make it in time, keep on trying and don't give up before the time ends. Keep calm, keep making only constructive criticism and don't make each other responsible if something doesn't work. **See it as a chance to show the judges that you are a team even in stressful situations. And of course, it is harder to cope with those than with successes.**



Especially in bigger teams, it is not always easy to manage the team so that every member has something to do during Live Challenge. Here, you will have to be creative in the means of assigning tasks: Possible roles besides programmer are for example robot-aligner, task field resetter, time taker (who will tell you the remaining time every few minutes) or USB-cable-plugger (if needed). **Make sure everyone has a well-defined task, even if it is a very small one!**

But most important is: Have fun!

Practice

Let your coach give you some tasks, so you can practice the procedure and the role assignments of the team.

Tips for coaches

Take preferably the latest robot game mat or, if you have one, an older mat and think about how you can change those task models into new, creative tasks. Some creative tasks are for example collecting a loop, moving an object, turning a lever or even just an obstacle course the robot has to drive through. You can use models/objects of older robot games, build new ones yourself with LEGO® or use objects from your everyday life. Give the team a set of tasks with different levels of difficulty. (If you practice more than one session, you can of course just practice the remaining tasks). If you have a second EV3-set available, you can also practice the handling of an unknown and "unusual" robot by giving the team a robot with for example following features:

- Both wheels are driven by the same motor, but also turn independently from each other (with a differential gearbox, for example LEGO® part nr. 62821); at the back only one wheel which can be steered by a second motor.
- Differently sized wheels on the right and left
- Same wheel sizes, but different gear ratios from the motors to the wheels (-> they turn at different speeds with the same motor speed).
- The motors built in so that one of the motor controlled wheels are at the front and the other one at the back (this is especially suitable for an obstacle course)

6 Awards

In addition to the “usual” awards, there are special awards at the CE Finale. These are usually supported by sponsors of the FLL in Central Europe, but **don't have any influence on the overall score!** Hands on Technology e.V. describes these awards as follows:

6.1 FLL Creativity Award

This award goes to the team showing extraordinary creativity and fantasy in constructing the robot. The evaluation is based on visual, as well as on mechanical attributes. The robot is created from LEGO® in an imaginative and unique manner and is able to struggle the challenges successfully with an outstanding and creative solution. The robot is catching the attention of the judges, referees and other teams and is in the centre of attention because of its original look. It arouses the interest for robotics and its unlimited opportunities and shows the fun you may have with building, constructing and programming with LEGO® Mindstorms. The awarding is supported by the LEGO® company.



6.2 FLL Award for the best Programming

The software programming of the awarded team distinguishes itself in exceeding quality and performance (stabil and free from defects) as well as user friendliness (simple, intuitively, intelligible handling) and clear and simple structure. Evaluated is also innovative strength, which means the idea the programming is based on. Despite to that, the possibility to extend and transfer the idea to different useful applications should be taken into account (flexibility and integration). The criteria of SAP-Programming should be transferred to the challenge. The award for the best programming is supported by the software company SAP.

6.3 FLL Live Challenge

The team receives the award, which has been able to solve most of the tasks in a very short time. The FLL "Live Challenge" is part of the "Teamwork" evaluation and is rated as the Teamwork activity.

7 International Events

At the CE Final, you have the chance to qualify for different international events all over the world. These are organized by different hosts in different countries. They are no further competition level, but a closing of the season that should be an opportunity for the best teams of the world to celebrate the season together and exchange each other about the robots, projects, and other topics. This season, you can qualify for the following events:

- FLL World Festival
Detroit, Michigan, USA
24.-27. April 2019
www.firstchampionship.org
- FLL Open International
Lebanon
Beirut, Lebanon
14.-16. June 2019
www.fllopenlebanon.com
- FLL Open International Turkey
Gaziemir/Izmir, Turkey
22.-25. May 2019
www.fllopenturkey2019.org
- FLL Uruguay International Open
Montevideo, Uruguay
30. May – 01. June 2019



Since travelling to and participating in one of those events means a high organizational and financial effort. We have created another handbook that you will get after you qualified for one of those events.

There is just one thing that you should consider yet already:

Special case: school leaving examination

It may happen that older team members have their school leaving examinations during the date of the event. As soon as there is just a glimpse of a chance for further qualification, it is important to contact your teachers/students' coordinators and check if an absence permission and repeating the exam at a different date are possible. That should be done even before the CE Final, because often the time after the CE Final is too short to make a proposal for that. If you qualify for an event at the CE Final and there is no absence permission or different exam date possible, you should directly contact Hands on Technology e.V. They can try to change the ticket to go to a different event!

8 Checklists

Did you consider everything? Did you plan all important things of your trip? Did you get all necessary information from your organizer? Everything packed? We have a few checklists for you to make sure you don't forget anything!

8.1 Organization of the trip

We have...

- Registered the team for the tournament, got a confirmation and paid all registration costs
- Organized a school absence permission for all team members for the time of the trip
- Booked all flights/trains/busses
- Booked the hotel(s)
- Organized the transport on site (shuttles, public transport, (rental) cars,...)
- Covered as much as possible of the costs by sponsors

8.2 Preparation

We have...

- Practiced to answer typical questions of the judges in English
- If needed: prepared a translator (possibly technical terms about the robot/research project)
- Practiced the Live Challenge a few times to get used to the procedure (and talked about a role/task distribution)
- Practiced to present in a clear English to get understood well
- Practiced the robot-game again, adapted it to the exact measurements of the tournament tables and improved it

8.3 Information from the organizer

We know...

- the exact measurements of the robot game tables and adapted our robot-game if necessary
- if needed: if there is internet available at the tournament venue
- if a projector or other equipment (table, chairs,..) for the research presentation are available

Finally: Have fun!

We hope that with this handbook we could give you a few useful tips for your upcoming trip. Use the event to have fun together with other teams, exchange and learn from each other! Now there is just one thing left for us: To wish you good luck and even more important a lot of fun – and don't forget: **It's ok to have fun! ;)**

If you have any open questions about the CE Final, please send them directly to Hands on Technology e.V. (info@hands-on-technology.org) or to us (info.fil-handbuch@web.de). We would love to hear about your experiences at the CE Final and get some feedback if our tips were helpful. So next year, we can again support the teams not only with our advices, but also with the important details you gave us. We are looking forward to hear from you!

Have fun and good luck!

Viviana Sutedjo und Tim Waibel

