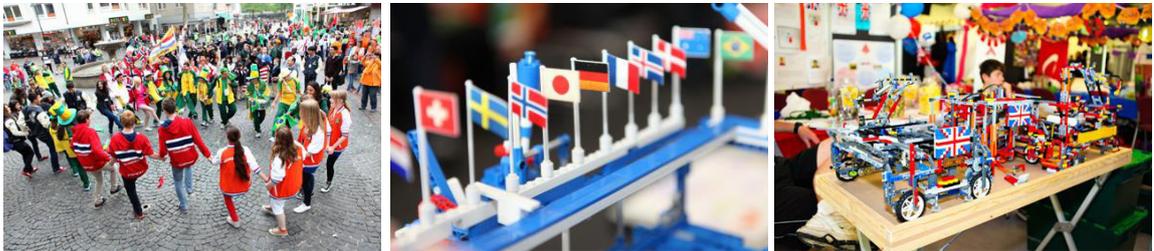


FIRST® LEGO® LEAGUE OPEN INVITATIONAL CENTRAL EUROPE

FÖNIX HALL IN DEBRECEN, HUNGARY, 16-19 MAY 2018

TEAM GUIDE



The *FIRST*® LEGO® League Open Invitational Central Europe 2018 is proudly organized by HANDS on TECHNOLOGY in cooperation with National Instruments Hungary and the City of Debrecen.

CONTENT

1. Organisational information	3
1.1 Tournament date, location and contact	3
1.2 Admission to the tournament for teams	3
1.3 Tournament Program	3
1.4 Check-in	6
1.5 Food and Beverages	7
1.6 The Pit Area	7
1.7 Inspect the Project room & practice the presentation	8
1.8 Practice the Robot Game	8
1.9 Delivery of freight in advance	8
1.10 Tournament language	8
1.11 Consent and Release Agreement	8
1.12 Ambulance WoMen	9
1.13 Lost and Found	9
1.14 WLAN	9
1.15 Cloak room	9
1.16 Spectators / Visitors	9
1.17 Smoking	10
1.18 PublicTransportation	10
1.19 Bus shuttle service	11
1.20 Accomodation	11
1.21 Sightseeing	11
2. Information about the evaluation	12
2.1 Evaluation categories	12
2.2 The judging sessions	12
2.3 Robot Game evaluation	14
2.4 HYDRO DYNAMICS SM Global Challenge and resources	15
3. The Awards	16
4. Attachements	18
FLL Open Invitational 2018_Consent and release agreement	
Robot_Design_Executive_Summary	
Core Values Poster instructions	
Rubric_Core Values	
Rubric_Project	
Rubric_Robot Design	

1. ORGANISATIONAL INFORMATION

1.1 Tournament date, location and contact

Date

May 16 - 19, 2018

Location

Főnix Hall, Kassai út 28, 4028 Debrecen, HUNGARY

The Főnix Hall in Debrecen is the second largest arena in Hungary. The multi-purpose arena holds 8,500 people. The arena was named after the Phoenix, a mythical firebird which is the symbol of Debrecen. Read more about the Főnix Hall at their web page www.fonixcsarnok.hu/.

Contact

Email: info@fllopen2018.org

Mobil: +49 152 318 33845 (Susanne Voigt)

Web page: www.fllopen2018.org | Facebook: #fllopen2018

1.2 Admission to the tournament for teams

Registered teams (team members and coaches) have full access to all parties, catering facilities and areas designated for teams. The registration includes the following:

- Admission to venue from Thursday (May 17) until Saturday (May 19)
- Welcoming Party on Wednesday, May 16 (food and drinks included)
- Opening Ceremony
- Friendship Night on Thursday, May 17 (food and drinks included)
- Science Night on Friday, May 18 (food and drinks included)
- Closing & Award Ceremony on Saturday, May 19
- Lunch, drinks and cake on Thursday, Friday and Saturday
- Re-useable water bottle

1.3 Tournament Program

Please take a good look at the **overview schedule**. We will publish a detailed schedule with the exact times for each team prior to the event.

Especially note the **Coach Meeting** on Thursday, May 17th starting at 10:50. At this meeting the coach will have the opportunity to meet tournament organizers, the head referee, get an overview on the event schedule, ask judging and robot game related questions, and other questions you might have about the tournament. Therefore we ask all coaches to join this meeting.

Wednesday, May 16

- 15:30 - 20:00 Welcoming Party
- All teams meet at 15:30 at the meeting point in the **Great Forest Park** (address: Debrecen, Nagyerdei park 1 - see map).
 - After the welcoming, all teams, registered visitors (Premium Ticket) as well as all volunteers can go to the **Aquaticum Mediterranean Aqua Park** (see picture) and have a nice hydro adventure. Therefore please bring swimming gear, flip flops and towels. Even if you are not going into the water please change your clothes (shorts, shirts).
 - In the Aquaticum we will offer food and drinks.
- 20:30 Bus shuttle for teams staying at hotels outside Debrecen (of the recommended accomodations)



Thursday, May 17

- 09:00 Doors of the Főnix Hall open for all
- 09:00 - 12:00 Registration
- 09:00 - 15:00 Pit Set-up
- Robot practice matches
- 10:00 - 15:00 Project practice (*subscribe to a list at the registration desk*)
- 10:50 - 11:30 Coach Meeting
- 11:30 - 14:00 Lunch
- 12:30 - 15:30 Calibrating rounds (designated time for each team)
- 16:00 - 17:30 Opening Ceremony
- The opening ceremony will begin with a parade of the teams. For this, we ask all teams to line up with their country in a designated area (beginning with „A“ and ending with „Z“). You will receive detailed information about the process of the parade prior to the event.

- To make it as colourful as possible, please bring flags, team items, mascots, ... to present yourself to the audience while walking in.
- 18:00 – 21:00 Friendship Night
- After the Opening everybody leaves the Főnix Hall.
 - Teams and registered visitors (Premium and Tournament Ticket) will go to **Lovarda** (address: Debrecen, Kassai út 26). It is a 3 minutes walk from the Főnix Hall.
 - We will offer food and drinks.
 - After dinner, teams can perform (dance, song, etc.) and present their country. If your team wants to perform please email to service@filopen2018.org until April 26.
 - Besides the Friendship Night, we will have the Volunteer and Guest Dinner at the same time at Lovarda.
- 21:30 Bus shuttle for teams staying at hotels outside Debrecen (of the recommended accomodations)

Friday, May 18

- 09:00 Doors of the Főnix Hall open for all
- 09:30 - 13:40 Robot Game (round 1)
- 09:30 - 16:00 Judging sessions (Project, Core Values, Robot Design)
- 11:30 - 14:00 Lunch
- 14:00 - 17:10 Robot Game (round 2)
- 17:45 Bus shuttle from the Főnix Hall to the Kőlcsey Centre
- 18:00 - 21:00 Science Night
- Teams and registered visitors (Premium and Tournament Ticket) can use the bus shuttle from the Főnix Hall to the **Kőlcsey Centre** (address: Debrecen, Hunyadi utca 1-3.)
 - We will offer food and drinks.
 - At the Science Night you can experience interesting exhibited tools which are connected to technology, innovation and you can try other funny things. The exhibitors will be available till 20:00.
 - Besides this a DJ will be present and provide good dancing music for you.
- 21:15 Bus shuttle for teams staying at hotels outside Debrecen (of the recommended accomodations)

Saturday, May 19

08:30	Doors of the Főnix Hall open for all
09:00 - 12:00	Robot Game (round 3)
09:00 - 12:00	Pit Visits & Judges Consideration
11:30 – 14:00	Lunch
12:30	Announcement Robot Game Quarter Final
13:00 - 13:10	Robot Game quarter final (8 best teams)
13:20 - 13:30	Robot Game semi final (4 best teams)
13:40 - 14:00	Robot Game final
14:30 - 16:00	Closing and awarding ceremony
16:00 - 17:00	Clean up your pit and say goodbye
17:30	Bus shuttle for teams staying at hotels outside Debrecen (of the recommended accomodations)

1.4 Check-In

When you arrive at the Főnix Hall on Thursday, May 17th, please go to the registration desk first and check-in your team. Please check-in no later than 12:00 noon.

If not having done so via email in advance, please hand in the **FLL Open Invitation-al 2018 Consent and release form** of all team members when checking-in. For more info, please see (point 1.11).

At the registration desk you will receive a **welcoming bag** with the following content:

- Wristband
 - In your welcoming bag we will provide one coloured wristband for each registered team member and coach to carry. The wristband is personal and is your ticket to participate in events and as payment for traveling on the shuttle busses, for food and drinks and admission to the tournament venue, Lovardo and Kölcsey Centre. Thus, the wristband is valuable and important, so please take good care of it. If you lose your wristband, please report it to the volunteer at the information desk immediately.
 - With the colour of the wristband we also identify people who have food allergies/needs. We are checking in advance with the coaches, if there are any allergies/needs for team members and coaches. Allergies and other food requirements reported to service@fllopen2018.org by April 26 will be taken into account.
- Blu Tack
 - In the welcoming bag you will also find a package of Blu Tack, which you can use to hang things to the walls of your Pit. Please note: No other adhesive material is allowed.
- Papers
 - like the schedule, the program book, the wifi access code,
- Refillable Water Bottles

- You can refill the water bottles at the designated water stations at the Főnix Hall, but also straight from the tap in the restrooms (tap water in Hungary is drinkable).

1.5 Food and Beverages

Registered teams can join the catering throughout the whole tournament. This catering includes:

- Wednesday, May 16
 - Dinner and soft drinks at the Welcoming Party
- Thursday, May 17
 - Lunch, drinks and cake
 - Dinner and soft drinks at the Friendship Night
- Friday, May 18
 - Lunch, drinks and cake
 - Dinner and soft drinks at the Science Night
- Saturday, May 19
 - Lunch, drinks and cake
- Refillable water bottle

Food will be served in a catering tent next to the building.

Besides the food and drinks included in the registration fee, we offer **2 snack bars** at Főnix hall, where you can purchase food and drinks at your expenses. Payment is only possible in cash. The currency in Hungary is the Hungarian Forint (HUF).

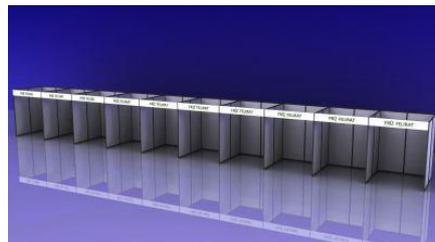
1.6 Pit Area

Each team will have a Pit Area of 4 square meters (2 x 2m and 2,38m in height). We will provide:

- 1 table (160 x 80cm)
- 2 chairs
- blu tack
 - If you want to decorate the walls of the stand, you need to do it with a special material called **blu tack**. We will provide it in the welcoming package. This is the **ONLY** type of material allowed. Duct tape, scotch tape, velcro, dual-lock etc. is not allowed!
 - If you want to hang banners with eyelets, we can provide suitable **hooks**. Please send an email to service@fllopen2018.org **by May 6**, if you need hooks and how many you need.
- Electrical connection (socket types C and F / standard voltage 230 V / standard frequency 50 Hz.)

Do not forget to bring own adapters, if needed.

Please note: Teams are responsible to decorate their own pit in the way that represents their team the best. It is not possible, to bring tents and to roof the stand. Because of fire regulations, those items cannot get set up there.



Throughout the whole tournament, we provide no insurance for team materials.

1.7 Inspect the Project room & practice the presentation

Teams have the opportunity to inspect the Project room and practice the presentation on Thursday from 10:00 to 15:00. If your team wants to make use of this opportunity, it needs to subscribe to a list at the registration desk. The maximum length of the practice session is 15 minutes per team.

1.8 Practice the Robot Game

Throughout the tournament we offer 8 practice tables where teams can practice the Robot Game. There is no subscription list for the practice tables. Please be fair and do not block the table longer than 15 minutes.

1.9 Delivery of freight in advance

It is possible to ship freight of your team to Debrecen in advance. If you want to make use of that service, please email service@filopen2018.org.

1.10 Tournament language

The official tournament language is English. Teams are allowed to bring translators to the evaluation sessions.

1.11 Consent and Release Agreement

Attached to this document you find the *FIRST*[®] LEGO[®] League Open Invitational's 2018 Consent and Release Agreement for the event. Each participant or participant's parent/guardian must fill one out prior to sending their child to Debrecen. The coach is responsible for submitting one form of each participant.

Please have the Consent and Release Agreement filled out and send it back via mail to service@filopen.org **until May 6.**

1.12 Ambulance WoMen

In case of an emergency, please talk to the volunteers at the registration desk. We have ambulance WoMen available throughout the whole tournament.

1.13 Lost and Found

Please bring found items to the registration desk immediately.

1.14 WLAN

At the Főnix Hall we offer wireless LAN for free. We will provide the WLAN access on the spot, which will be in your welcoming bag.

1.15 Cloak room

At the Főnix hall you can leave your jackets, bags, etc. at a secured cloak room. Furthermore, we provide **one box** (65 x 35 x37 cm) **per team** at the cloak room, where you can put belongings in. Those boxes will be stored over night in a locked room.

1.16 Spectators / Visitors

The tournament is open to the public.

For supporters, who want to follow the teams closely, various „visitor tickets“ are available for purchase on www.filopen2018.org.

Visitors (children and adults) that have purchased the **Premium Ticket** in advance, will follow the team throughout the whole event - except they cannot be part of the competitions itself. The ticket includes the same days, catering services and extra parties as described in 1.2 and 1.5.

Guests (children and adults) that have purchased the **Tournament Ticket** in advance can not join the Welcome Party on Wednesday and will not receive lunch and cake on Thursday.

The third option is the **Entrance-only-ticket**. Visitors, who have not registered in advance, can purchase this ticket for 1500 HUF / 800 HUF (for kids) at the entrance. They will have access to all areas in the venue, but no access to the catering areas.

All information about the registration for visitors can be found at <https://www.filopen2018.org/visitors/get-involved.html>.

1.17 Smoking

Smoking at the tournament venue is strictly prohibited.

If you fail to comply with this rule, it may have severe consequences to yourself and to the event. If smoke should trigger the fire alarm, the tournament will be suspended, as the whole venue will have to be evacuated. The person/persons, who triggered the alarm, will be fined HUF 350.000,00 by the authorities. Smoking is only allowed outside 10 meters of the building, at the designated place.

1.18 Public Transportation

In Debrecen there is a well developed bus network and two tram lines (line 1 and 2).

Journey planer

The easiest way to find your way is to use the Journey planer at www.dkv.hu/fooldal, where you can enter your starting point and your destination. The system offers different journey options and a map.

Tickets

In Debrecen, you can buy tickets on the bus and on the tram from the driver (please not though, that drivers in most cases can not speak English very well). You can also buy tickets at the train station, or at „The Forum“ (huge shopping mall at the city center) at Inmedio newspaper shop (on the 1st floor). Some tram stops have a ticket machine. There you can pay with credit card or cash in HUF.



There are of course also different ticket options.

- **1 day ticket 1 200 HUF**
 - Valid for scheduled bus, trolleybus and trams operated along the entire length of the lines
- **3-day ticket 2 500 HUF**
 - Valid for scheduled bus, trolleybus and trams operated along the entire length of the lines.
- **7-day ticket**
 - Valid for scheduled bus, trolleybus and trams operated along the entire length of the lines.
- **Small group ticket 2 000 HUF**
 - Valid for scheduled bus, trolleybus and trams operated along the entire length of the lines.
 - With a small group ticket, during a period of validity, a maximum of 5 people can travel together on a vehicle.

1.19 Bus shuttle service

We offer a bus shuttle twice a day for teams staying in a recommended accommodation outside of Debrecen.

The service includes a drive to the Főnix Hall in the morning and a drive back in the evening. The detailed planning for the shuttle will be sent to you via email prior to the event.

1.20 Accommodation

Please make sure to arrange your hotel and travel arrangements. We kindly ask all teams and guests to arrange their own accommodation themselves.

At www.fllopen2018.org we have prepared a list of recommended accommodations for you.

1.21 Sightseeing

If you have time, experience Debrecen and its attractions. At <https://www.fllopen2018.org/aboutus/city-of-debrecen.html#2> we provide some suggestions, what you could do in your free time.

The Debrecen tourist service office will run sightseeing tours on Tuesday afternoon, Wednesday morning and Thursday morning at your expenses.

Besides this you can purchase souvenirs at the venue at your expenses.

We will provide further information concerning the tourist tours as soon as possible via email.

2. INFORMATION ABOUT THE EVALUATION

2.1 Evaluation categories

Teams are evaluated by judges in 3 categories:

- Robot Design
- Project
- Core Values

Furthermore, the teams are evaluated by referees in the category:

- Robot Game

2.2 The judging sessions

The judging sessions will take place on **Thursday, May 17.**

General notes on the judging sessions

- We do not require any kind of **Team Information Sheet**, which needs to be handed over to the judges.
- Teams should **arrive** in front of the respective judging room **10 minutes prior** to the start of the judging session. Please wait in front of the room until you are asked to enter.
- It is the responsibility of each team to get to their judging session on time; there are no announcements in the pits calling teams to judging sessions. A missed assessment cannot be made up later.
- A single judging session will take **20 minutes**.
- Adult intervention during the judging sessions is not allowed and will adversely affect the team's eligibility for awards.
- Coaches, spectators, as well as a translator (if needed) are allowed during the judging session. Photography and video is permitted only from spectator seating area.

Judging continues on **Saturday morning**, with the possibility of judges visiting teams in the Pit Area or watching teams in the competition area.

Robot Design evaluation

Setup of the evaluation room:

- competition table with the HYDRO DYNAMICSSM Challenge Set
- small table to place the laptop on

Process of the evaluation session

- Give a short presentation of your robot and the software.
- The entire presentation, including the trial run, should not take longer than 4 minutes.
- Please read the **Robot Design Executive** (see attached) for some tips to create such a presentation.
- It is not required to provide a written version of the Robot Design Executive Summary to leave with the judges.
- After your presentation, judges will ask you questions. For this purpose the judges will divide into a hardware and a software group. Please be prepared to also divide your team in these groups in order to answer the questions.

Please bring the following material:

- your robot
- your laptop / tablet in order to show the programming
- Make sure computer batteries are fully charged and all electrical plugs are sockets type C and F compliant. If not, please bring your own adapters. The standard voltage is 230 V and the standard frequency is 50 Hz.

Project evaluation

Setup of the evaluation room:

- power strip (socket type C and F)
- tables and chairs
- projector with HDMI- and VGA cables

Process of the evaluation session

- Setup the equipment needed for the presentation (no longer than 2 minutes).
- Present your Project (max. 5 minutes). Please be aware, that judges will stop longer presentations.
- Afterwards, judges will ask questions regarding your project.

Please bring / provide the following material:

- your laptop / tablet (if needed for the presentation)
- other equipment you need
- Bring your own converter to fit the PC/Mac/tablet to the HDMI- or VGA cable, if your device is not set up for one.
- Any videos etc. the team is planning to use during the presentation must be downloaded and available offline on a PC or tablet. This is to guarantee a smooth presentation.

Core Values evaluation

Process of the evaluation session

- Present your **Core Values poster** (5 minutes)
 - The poster is designed to help the Core Values judges to learn more about your team and its unique story.
 - Attached to this team guide you can find **Core Values Poster instructions document**. Please be aware, that the poster needs to be in English!
- Perform a teamwork activity (5 minutes)
- Answer the questions of the judges (5 minutes).

Please note: Along with the formal judging session, teamwork may also be observed during all other times of the event. Judges often walk through the Pits and the Competition Area, and other individuals (such as referees, organisers and other volunteers) may report observed team behaviors back to the judges.

Only the coaches, the translator(s) and supporters of the respective team are allowed during the judging session.

2.3 Robot Game evaluation

The Robot Game is assessed by referees at the Robot Game competition tables in the competition area.

Each team will perform in **3 Robot Game matches** on **Friday, May 17th** to score as high as possible. Only the best match counts.

General notes on the Robot Game evaluation

- Teams must be present at the competition area **10 minutes prior to their match!**
- Before the team is allowed to perform, the robot needs to be checked and approved by the Robot Checkers at the **Robot Check** area. The check is obligatory prior to each match.
- It is the responsibility of each team to get to their Robot Game match on time; there are no announcements in the pits calling teams to the Robot Game match. A missed match cannot be made up later!
- The coach(es) is/are permitted to join the team on the competition floor, but will have to stand outside the marked area. No active directing from coaches is permitted!
- You can bring a box and use it to carry your robot to competition area.
- During a match, only 2 team members are allowed at the competition table, when the robot is running. Team members may switch at any time.
- At the end of the match, the field condition will be reviewed by the referee with the team. This is the only time, the team can call a

scoring decision into question. Adult intervention is unacceptable. The table review is an agreement between the referee and the team members at the table (not the coaches!).

- If the team members at the table do not agree with the decision of the referee, adhere to the following procedure:
 - Do not leave the playing field
 - Only team members speak to the referee and explain their opinion.
 - Finally please accept the decision of the Head Referee and leave the field.
 - The decision of the Head Referee is final, there is no appeal.

Final Robot Game matches

The top 8 teams from Friday qualify for the **Robot Game quarter final** on **Saturday, May 18**. From there the top 4 teams qualify for the **semi final**. And at least the top 2 teams compete against each other in the **Robot Game final**. The final includes two matches.

Robot Game Calibrating Rounds

Each teams can calibrate their robot on Thursday, May 17th in the tournament competition environment, without having their score affect their outcomes; they allow the referees to practice and discuss what they learned. Typically practice rounds:

- Run with teams, referees, scorekeepers, other volunteers and with live scoring as if they were real rounds.
- Don't count.

Your team will be able to do 1 practice round with a length of 20 minutes at one of the eight competition tables. The exact time for your calibration round will be available in the detailed schedule, which will be sent to you prior to the tournament.

2.4 HYDRO DYNAMICSSM Global Challenge and resources

At the FLL Open Invitational Central Europe teams perform the HYDRO DYNAMICSSM Challenge.

Information and resources at: <https://www.firstinspires.org/resource-library/fll/hydro-dynamics-challenge-updates-and-resources>.

3. THE AWARDS

The following awards will be presented at the event:

Champion Award (rank 1-3)

This award recognizes a team that embodies the FLL experience, by fully embracing our Core Values, while achieving excellence and innovation in both the Robot Game and Project.

Robot Awards

Mechanical Design (rank 1-3)

This award recognizes a team that designs and develops a mechanically sound robot that is durable, efficient and highly capable of performing challenge missions.

Programming (rank 1-3)

This award recognizes a team that utilizes outstanding programming principles, including clear, concise and reusable code that allows their robot to perform challenge missions autonomously and consistently.

Strategy & Innovation (rank 1-3)

This award recognizes a team that uses solid engineering practices and a well-developed strategy to design and build an innovative, high performing robot.

Robot Performance (rank 1-3)

This award recognizes a team that scores the most points during the Robot Game. Teams have a chance to compete in at least three 2.5 minute matches and their highest score counts.

Project Awards

Research (rank 1-3)

This award recognizes a team that utilizes diverse resources to formulate an in-depth and comprehensive understanding of the problem they have identified.

Innovative Solution (rank 1-3)

This award recognizes a team's solution that is exceptionally well-considered and creative, with good potential to solve the problem researched.

Presentation (rank 1-3)

This award recognizes a team that effectively communicates the problem they have identified and their proposed solution to both the judges and other potential supporters.

Core Values Awards

Inspiration (rank 1-3)

This award celebrates a team that is empowered by their FLL experience and displays extraordinary enthusiasm and spirit.

Teamwork (rank 1-3)

This award recognizes a team that is able to accomplish more together than they could as individuals through shared goals, strong communication, effective problem solving and excellent time management.

Gracious Professionalism® (rank 1-3)

This award recognizes a team whose members show each other and other teams respect at all times. They recognize that both friendly competition and mutual gain are possible, on and off the playing field.

Additional Awards

In addition to the FLL Core Awards, the following awards will also be presented:

Judges Awards

- Against all odds
 - This award goes to the team that improvises and overcomes a difficult situation while still making a respectable showing, with an attitude that shows, “We can overcome incredible odds if we never give up, no matter what!
- Rising star
 - This award recognizes a team that the judges notice and expect great things from in the future.

SPECIAL Recognition Awards:

- Outstanding volunteer award
 - The FIRST LEGO League program would not exist without its volunteers. This award honors an extraordinary volunteer(s) whose dedication to FIRST LEGO League has a positive impact on the team experience.
- Young adult coach/mentor award & Adult coach/mentor award
 - Coaches and mentors inspire their teams to do their best, both as individuals and together. This award goes to the coach or mentor whose leadership and guidance is clearly evident and best exemplifies the FIRST LEGO League Core Values.

We recommend teams to prepare their presentations according to the official Rubrics used for judging. Please find the Rubrics attached to this document.



CONSENT AND RELEASE AGREEMENT

Participant Name: _____

If Participant is under 18 year of age, Parent/Guardian Name: _____

Participant Date of Birth if under 18 years of age (MM/DD/YYYY): _____

Participant Address: _____

Participant Email (if Participant is under 18 years of age, Parent/Guardian Email): _____

Participant Team Number: _____

The Participant identified above ("Participant") desires to participate (as a team member, coach, mentor, judge or in some other manner) in the FIRST® LEGO League Open Invitational Central Europe 2018 operated by HANDS on TECHNOLOGY e.V. As a condition of allowing „Participant“ to participate in the event HANDS on TECHNOLOGY e.V requires that the Participant (by his or her Parent/Guardian if under 18 years of age) agree to the terms of this Consent and Release Agreement.

1. Participant (and the Parent/Guardian of a Participant under 18 years of age) understands that participation in the event will expose Participant to risks of injury including, without limitation, injury from: building, lifting, and using electrical/mechanical robots and robot components; using tools; other participants; dancing and other associated activities. Participant (and the Parent/Guardian of a Participant under 18 years of age) understands that HANDS on TECHNOLOGY e.V does not select, employ, supervise or otherwise exercise authority or control over the coaches, mentors, and other participants in the event. Participant, if 18 years of age or older, acknowledges and agrees that he/she is primarily responsible for his/her safety. The Parent/Guardian of a Participant under 18 years of age acknowledges and agrees that the Parent/Guardian is primarily responsible for the Participant's safety and that the Parent/Guardian will monitor, as appropriate considering the age of the Participant and other factors, the Participant's participation in the Program.

2. In consideration for HANDS on TECHNOLOGY e.V allowing the Participant to participate in the event, Participant (and the Parent/Guardian of a Participant under 18 years of age for and on behalf of the Participant and the Parent/Guardian) assumes all risk of such participation and hereby releases HANDS on TECHNOLOGY e.V and (except as expressly provided below) all of HANDS on TECHNOLOGY e.V directors, officers, employees, volunteers, and agents from any and all claims for any injury of any kind to the Participant (and the Parent/Guardian) or other damages that may occur as a result of the Participant's participation in the event, including without limitation any injuries or other damages that may be caused by the negligence of HANDS on TECHNOLOGY e.V or negligence of any of HANDS on TECHNOLOGY e.V directors, officers, employees, volunteers, or agents (including, without limitation negligently failing to adequately investigate or screen coaches, mentors, volunteers, etc.), and agrees not to file any lawsuit or otherwise make any claim against HANDS on TECHNOLOGY e.V or any of HANDS on TECHNOLOGY e.V directors, officers, employees, volunteers, or agents for any such injury or other damages. The Participant (and the Parent/Guardian of a Participant under 18 years of age) does not hereby release any claims against any individual person who intentionally causes injury to the Participant.

3. Participant (and the Parent/Guardian of a Participant under 18 years of age) understands that photographs, videotapes, and other recordings will be made of participants at the event, including the Participant. Participant (and the Parent/Guardian of a Participant under 18 years of age) consents to those photographs, videotapes, and other recordings and the use thereof (i) as part of a record of the event and (ii) to promote the event.

4. Participant (and the Parent /Guardian of a Participant under 18 years of age) understands the consent hereby given extends to any and all sponsors of the event and such sponsors may use such photographs, videotapes and other recordings for their own respective advertising, publicity, commercial or other business purposes in all markets. Participant (and the Parent/Guardian of a Participant under 18 years of age) has read this document and understands that this Consent and Release Agreement includes a waiver of the right to make injury claims that is intended to be legally binding. By signing below, Participant (and the Parent/Guardian of a Participant under 18 years of age) agrees to this Consent and Release Agreement.

Signature (of Participant if 18 years of age or older or Parent/Guardian if Participant under 18)

Printed name of person signing

Date



Robot Design Executive Summary (RDES)

To help the Robot Design Judges quickly and consistently learn about your robot and the design process used, we are requiring a short presentation. An “executive summary” is often used by engineers to briefly outline the key elements of a product or project. In other words, the purpose of the RDES is to give the Robot Design Judges an outline of your robot and all that it can do. The RDES is intended to help your team consider in advance the most important information to share with the Judges. What you chose to share will enable the Judges to effectively evaluate your team and provide more helpful feedback.

Your team is free to determine how much time you invest, but realistically it should only take a few hours to develop and practice the RDES. The RDES is NOT intended to be as extensive or time consuming as your Project.

Your team will present your RDES at the beginning of your Robot Design judging session. The entire presentation, including the trial run, should not take any longer than **four (4) minutes**. Following your Robot Design presentation the Judges will pose questions for your team to answer. You are not required to provide a written version of the RDES to leave with the Judges.

Basic Outline: The RDES should include the following elements: *Robot Facts*, *Design Details*, and a short *Trial Run*.

Robot Facts: Share with the Judges a little bit about your robot, such as the number and type of sensors, drivetrain details, number of parts, and the number of attachments. The Judges would also like to know what programming language you used, the number of programs and the amount of memory used by each program, and your most consistently completed mission.

Design Details:

1. **Fun:** Describe the most fun or interesting part of robot design as well as the most challenging parts. If your robot has a name, who chose the name and why. If your team has a fun story about your robot please feel free to share.
2. **Strategy:** Explain your team’s strategy and reasoning for choosing and accomplishing missions. Talk a little bit about how successful your robot was in completing the missions that you chose. Judges may like to hear about your favorite mission and why it is your favorite.
3. **Design Process:** Describe how your team designed your robot and what process you used to make improvements to your design over time. Briefly share how different team members contributed to the design and how you incorporated all the ideas.
4. **Mechanical Design:** Explain to the Judges your robot’s basic structure, how you make sure your robot is durable and how you made it easy to repair or add/remove attachments. Explain to the Judges how the robot moves (drivetrain), and what attachments and mechanisms it uses to operate or complete missions.
5. **Programming:** Describe how you programmed your robot to ensure consistent results. Explain how you organized and documented your programs, as well as, mention if your programs use sensors to know (and ensure) the location of the robot on the field.
6. **Innovation:** Describe any features of your robot design that you feel are special, different or especially clever.

Trial Run: If a Robot Game table is available, demonstrate the operation of your robot for the Judges performing the mission(s) of your choice. Please do not do an entire robot round; time will be needed for Judges to ask questions of your team.



Core Values Judging and Poster

Your Core Values judging session will have the following format:

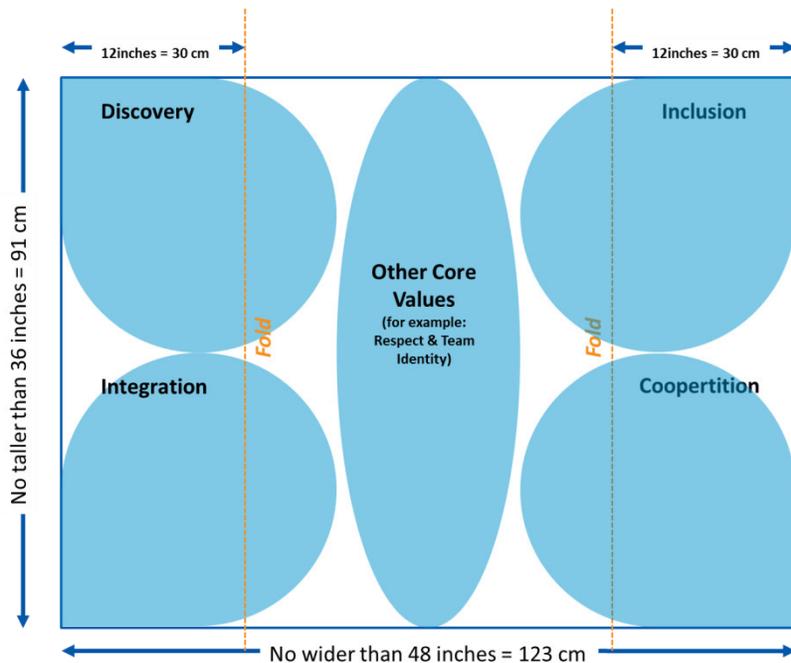


Core Values Poster

To help the Core Values Judges learn more about your team and its unique story, we are requiring every team to create a simple Core Values “tri-fold” or poster. The topics highlighted on the poster are typically the most challenging for Judges to explore during judging sessions. The poster is intended to help your team consider in advance how best to present its strengths so that the Judges can consider all teams equally and have the most information possible to provide meaningful feedback. Feel free to use creativity and originality!

Important rules and guidelines are listed below:

- 1. Time Investment:** While your team is free to determine how much time to spend, please know that realistically for most teams it should only take a few hours from the initial brainstorming discussion to the completion of the poster. This poster is NOT intended to be on the same scale or an extension of your Project presentation. Remember the Judges are more interested in your team’s story than fancy graphics.
- 2. General Layout:** The poster layout should follow the design below. The overall size of the poster should be no more than the measurements shown, and it may be smaller, especially if required for travel needs. The poster may also be rolled or assembled on site.



- 3. Defined areas:** There are four areas on the poster where specific information should be provided. These are the MOST IMPORTANT areas of the poster and should be the main focus of your work.
- In the “Discovery” area of the poster, provide examples from the season about things your team discovered that were not focused on gaining an advantage in the competition or winning an award. Tell the Judges how you balanced all three parts of *FIRST LEGO League* (Core Values, Project and Robot Game) especially if you really wanted to focus on only one sometimes!
 - In the “Integration” area, provide specific examples of how your team applied Core Values and other things you learned through *FIRST LEGO League*, to situations outside of *FIRST LEGO League*. Let the Judges know how you integrated new ideas, skills and abilities into your everyday life.
 - In the “Inclusion” area, describe how your team listened to and considered ideas from everyone and made each team member feel like a valued part of the team. Share with the Judges how you worked together and accomplished more than you could have by working alone.
 - In the “Coopertition” area, describe how your team honors the spirit of friendly competition. Include on your poster information about how your team provided assistance to and/or received assistance from other teams. Share with the Judges how your team members help each other, and help other teams to prepare for a potentially stressful *FIRST LEGO League* competition experience.
- 4. The Middle:** The area in the middle of the poster is for your team to highlight anything else you would like to share with the Judges about the remaining Core Values criteria. Maybe consider sharing examples of Team Spirit, Respect and Teamwork. You may also include examples of how your team has fun or shares with others how amazing science, technology, engineering and math can be.



Core Values

Team Number _____
Judging Room _____

Directions: For each skill area, clearly mark the box that best describes the team's accomplishments. If the team does not demonstrate skill in a particular area, then put an 'X' in the first box for Not Demonstrated (ND). Please provide as many written comments as you can to acknowledge each team's hard work and to help teams improve. *When you have completed the evaluation, please circle the team's areas of strength.*

		Beginning	Developing	Accomplished	Exemplary	
Inspiration	Discovery	Balanced emphasis on all three aspects (Robot, Project, Core Values) of FIRST LEGO League; it's not just about winning awards				
	N	emphasis on only one aspect; others neglected	emphasis on two aspects; one aspect neglected	emphasis on all three aspects	balanced emphasis on all three aspects	
	D					
	Team Spirit	Enthusiastic and fun expression of the team identity				
	N	minimal enthusiasm AND minimal identity	minimal enthusiasm OR minimal identity	team is enthusiastic and fun; clear identity	team engages others in their enthusiasm & fun; clear identity	
	D					
Integration	Integration	Application of FIRST LEGO League values and skills outside FIRST LEGO League (ability to describe current and potential examples from daily life)				
	N	team does not apply values and skills outside FIRST LEGO League	team able to describe at least one example	team able to describe multiple examples	team able to describe multiple examples, incl. individual stories	
	D					
	Teamwork	Effectiveness	Problem solving and decision making processes help team achieve their goals			
		N	team goals AND team processes unclear	team goals OR team processes unclear	clear team goals and processes	clear processes enable team to accomplish well defined goals
		D				
Efficiency		Resources used relative to what the team accomplishes (time management, distribution of roles and responsibilities)				
N		limited time management AND unclear roles	limited time management OR unclear roles	excellent time management and role definition allows team to accomplish most goals	excellent time management and role definition allows teams to accomplish all goals	
D						
Kids Do the Work	Kids Do the Work	Appropriate balance between team responsibility and coach guidance				
	N	limited team responsibility AND excessive coach guidance	limited team responsibility OR excessive coach guidance	Good balance between team responsibility and coach guidance	team independence with minimal coach guidance	
	D					
	Gracious Professionalism®	Inclusion	Consideration and appreciation for the contributions (ideas and skills) of all team members, with balanced involvement			
		N	unbalanced team involvement AND lack of appreciation for contributions	unbalanced team involvement OR lack of appreciation for contributions	balanced team involvement AND appreciation for contributions of most team members	balanced team involvement AND appreciation for contributions of all team members
		D				
Respect		Team members act and speak with integrity so others feel valued-- especially when solving problems or resolving conflicts				
N		not evident with majority of team members	evident with majority of team members	almost always evident with all team members	always evident, even in the most difficult situations	
D						
Coopertition®	Coopertition®	Team competes in the spirit of friendly competition and cooperates with others				
	N	not evident with majority of team members	evident with majority of team members	almost always evident with all team members	always evident, even in difficult situations--and team actively helps other teams	
	D					
	Strengths:					
		Inspiration	Teamwork	Gracious Professionalism®		

Directions: For each skill area, clearly **mark the box that best describes the team's accomplishments**. Teams should demonstrate everything at the level; if they are missing part, mark the level below. If the team does not demonstrate an area, put an 'X' in the first box for Not Demonstrated (ND). Please provide as many written comments as you can to acknowledge each team's hard work and to help teams improve. *When you have completed the evaluation, please circle the team's areas of strength.*

		Beginning	Developing	Accomplished	Exemplary
Research	Problem Identification *	Clear definition of the problem being studied			
	N D	unclear; few details	partially clear; details missing	mostly clear; detailed	clear; very detailed
	Sources of Information	Quality and variety of data/evidence and sources cited			
	N D	minimal quality; variety limited	quality OR variety need improvement; did not include professional(s)	sufficient quality and variety; included professional(s)	extensive quality and variety; included multiple professionals
	Problem Analysis	Depth to which the problem was studied and analyzed by the team, including extent of analysis of existing solutions			
N D	minimal study; no analysis	minimal study; some analysis	sufficient study and analysis	extensive study and analysis	
Comments					
Innovative Solution	Team Solution*	Clear explanation of the proposed solution and description of how it solves the problem			
	N D	difficult to understand	some parts confusing	understandable	easy to understand by all
	Innovation	Degree to which the team's solution makes life better by improving existing options, developing a new application of existing ideas, or solving the problem in a completely new way.			
	N D	existing solution/application	solution/application contains some original element(s)	original solution/application; potential added value	original solution/application; demonstrated added value
	Solution Development	Systematic process used to select, develop, evaluate, test, and improve the solution (Implementation could include cost, ease of manufacturing, etc.)			
N D	process AND explanation need improvement	process OR explanation need improvement	systematic process included evaluation	systematic process included evaluation; implementation considered	
Comments					
Presentation	Sharing*	Degree to which the team shared their Project before the tournament with others who might benefit from the team's efforts			
	N D	shared with family / friends	shared outside family / friends (such as classmates)	shared with one audience who may benefit OR one professional	shared with multiple audiences who may benefit OR multiple professionals
	Creativity	Imagination used to develop and deliver the presentation			
	N D	minimally engaging OR unimaginative	engaging OR imaginative	engaging AND imaginative	very engaging AND exceptionally imaginative
	Presentation Effectiveness	Message delivery and organization of the presentation			
N D	unclear OR disorganized	partially clear; minimal organization	mostly clear; mostly organized	clear AND well organized	
Comments					
Strengths:		Research	Innovative Solution	Presentation	

*Required for Award Consideration

Directions: For each skill area, clearly mark the box that best describes the team's accomplishments. If the team does not demonstrate skill in a particular area, then put an 'X' in the first box for Not Demonstrated (ND). Please provide as many written comments as you can to acknowledge each team's hard work and to help teams improve. *When you have completed the evaluation, please circle the team's areas of strength.*

		Beginning	Developing	Accomplished	Exemplary
Mechanical Design	Durability	Evidence of structural integrity; ability to withstand rigors of competition			
	N	quite fragile; breaks a lot	frequent or significant faults/repairs	rare faults/repairs	sound construction; no repairs
	D				
	Mechanical Efficiency	Economic use of parts and time; easy to repair and modify			
	N	excessive parts or time to repair/modify	inefficient parts or time to repair/modify	appropriate use of parts and time to repair/modify	streamlined use of parts and time to repair/modify
D					
Mechanization	Mechanization	Ability of robot mechanisms to move or act with appropriate speed, strength and accuracy for intended tasks (propulsion and execution)			
	N	imbalance of speed, strength and accuracy on most tasks	imbalance of speed, strength and accuracy on some tasks	appropriate balance of speed, strength and accuracy on most tasks	appropriate balance of speed, strength and accuracy on every task
	D				
Programming	Programming Quality	Programs are appropriate for the intended purpose and would achieve consistent results, assuming no mechanical faults			
	N	would not achieve purpose AND would be inconsistent	would not achieve purpose OR would be inconsistent	should achieve purpose repeatedly	should achieve purpose every time
	D				
	Programming Efficiency	Programs are modular, streamlined, and understandable			
	N	excessive code and difficult to understand	inefficient code and challenge to understand	appropriate code and easy to understand	streamlined code and easy for anyone to understand
D					
Automation/Navigation	Automation/Navigation	Ability of the robot to move or act as intended using mechanical and/or sensor feedback (with minimal reliance on driver intervention and/or program timing)			
	N	frequent driver intervention to aim AND retrieve robot	frequent driver intervention to aim OR retrieve robot	robot moves/acts as intended repeatedly w/ occasional driver intervention	robot moves/acts as intended every time with no driver intervention
	D				
Strategy & Innovation	Design Process	Ability to develop and explain improvement cycles where alternatives are considered and narrowed, selections tested, designs improved (applies to programming as well as mechanical design)			
	N	organization AND explanation need improvement	organization OR explanation need improvement	systematic and well-explained	systematic, well-explained and well-documented
	D				
	Mission Strategy	Ability to clearly define and describe the team's game strategy			
	N	no clear goals AND no clear strategy	no clear goals OR no clear strategy	clear strategy to accomplish the team's well defined goals	clear strategy to accomplish most/all game missions
D					
Innovation	Innovation	Creation of new, unique, or unexpected feature(s) (e.g. designs, programs, strategies or applications) that are beneficial in performing the specified tasks			
	N	original feature(s) with no added value or potential	original feature(s) with some added value or potential	original feature(s) with the potential to add significant value	original feature(s) that add significant value
	D				
Strengths:		Mechanical Design	Programming	Strategy & Innovation	

Comments:

Comments:

Comments: