2023 Western PA FLL
Tournament Series and Championship

MASTER PiECE ℠

Grand Championship Discussion

November 2023

Agenda

- Welcome

- Recap of Season to Date

- Championship Event Details

- Q&A

Western PA FLL Grand Championship
Primary Contacts

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Western PA FLL
Tournament Series and Championship
2023 Robotics Season

Just the Robot Game →

Just the Robot Game →

Educational Scrimmages

9/30 – BigSTEM Educational Extravaganza *(AM)*
BrainSTEM Barn, Baden PA (PM option will open with demand)

10/07 – SmolSTEM Studious Soiree *(AM & PM)*
BrainSTEM Barn, Baden PA (PM option will open with demand)

10/14 – Prodigious Polymath Party *(AM & PM)*
BrainSTEM Barn, Baden PA (PM option will open with demand)

10/21 – Brobdingnagian Boss Scrimmage *(AM & PM)*
BrainSTEM Barn, Baden PA (PM option will open with demand)

Plus:
- **Earn LEGOS, and**
- **"Beat the Director"**

Competitive Scrimmages

10/28 – SV Spooktacular Scrimmage *(AM)*
Seneca Valley

11/04 – SciTech Superpowered *(AM)*
Location to Be Finalized

11/11 – USC TeraBridge's Tournament *(AM)*
Upper Saint Clair High School

11/18 – Aliquippa Ultimate Event *(AM & PM)*
Aliquippa High School

Grand Championship

← Robot Game and All Three Judged Categories

December 9th
Aliquippa High School

www.pafll.com

Western PA FLL Tournament Series
Scrimmage Recap

Date	Tournament	Type	# of Teams	High Score
11/18/23	Aliquippa PM	Competitive	10	450
11/18/23	Aliquippa AM	Competitive	24	425
11/11/23	Upper St. Clair	Competitive	28	405
11/4/23	SciTech Scrimmage	Competitive	19	270
10/28/23	SV Spooktacular FLL Competitive Scrimmage	Competitive	24	310
10/21/23	Brobdingnagian Bash - PM	Educational	8	400
10/21/23	Brobdingnagian Bash - AM	Educational	14	330
10/14/23	The Prodigious Polymath Party - PM Event	Educational	8	250
10/14/23	The Prodigious Polymath Party - AM Event	Educational	11	240
10/7/23	SmolSTEM PM	Educational	6	180
10/7/23	SmolSTEM AM	Educational	11	225
9/30/23	BigSTEM Educational Extravaganza	Educational	11	165

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Western PA FLL Grand Championship
The "Basics"

Date:	**December 9th 2023**
Venue:	**Aliquippa High School**
	100 Harding Ave.
	Aliquippa, PA 15001
Contact:	**Gordon Walton**
	Tournament Director
	gwalton@pafll.com

General Schedule

Doors Open:	7:00 a.m.
Opening Ceremony	8:00 a.m.
Judge Interviews Begin	8:30 a.m.
Round 1 – Robot Game Begins	8:30 a.m.
Round 2 – Robot Game Begins	10:30 a.m.
Lunch Break	12:10 p.m.
Round 3 of Table Game Begins	1:00 p.m.
Call Back Judging Interviews	2:00 P.M.
Round 4 of Table Game Begins	3:15 p.m.
Clean Up and Prep for Awards	4:45 p.m.
Awards Ceremony	5:00 p.m.

Note: **Teams will receive an electronic schedule of their personal events** and locations (with the exception of call back judging) the week of the tournament

Western PA FLL Grand Championship
Championship Challenge Components

ROBOT GAME

Your team will have three 2.5-minute matches to complete as many missions as possible.

Your team will:
- Build the mission models and follow the field setup to put the models on the mat.
- Review the missions and rules.
- Design and build a robot.
- Explore building and coding skills while practicing with your robot on the mat.
- Compete at an event!

INNOVATION PROJECT

Your team will prepare a 5-minute presentation to explain your Innovation Project.

Your team will:
- Identify and research a problem to solve.
- Design a solution to the problem that helps others or your community.
- Create a model or prototype of your solution.
- Share your ideas, collect feedback, and iterate on your solution.
- Communicate your solution at an event.

CORE VALUES

FIRST® **Core Values** will be evaluated during the Robot Game matches and during the Innovation Project and Robot Design presentations.

Your team will:
- Apply **teamwork** and **discovery** to explore the challenge.
- **Innovate** with new ideas about your robot and project.
- Show how your team and your solutions will have an **impact** and be **inclusive!**
- Celebrate by having **fun** in everything you do!

ROBOT DESIGN

Your team will prepare a short explanation on your Robot Design, programs, and strategy.

Your team will:
- Identify your mission strategy.
- Design your robot and programs using your work plan.
- Create your robot and coding solution to match your mission strategy.
- Iterate and test your robot and programs.
- Communicate your Robot Design process, your programs, and your robot solution.

Western PA FLL Grand Championship
Key Logistics - Judging

- ❑ 12 Judging Rooms in the High School

- ❑ All Judging is in a single 30-minute Session
  (bring everything)

- ❑ 1 adult requested to attend classroom-based sessions
  (but must not participate)

- ❑ Retain copies of valuable documentation
  (materials provided to judges will not be returned)

- ❑ Good idea to arrive early to get organized

- ❑ Can wait outside judging area

FLL Rubrics

Core Values

FIRST LEGO LEAGUE CHALLENGE

Team #	Team Name		Judging Room

Instructions
The Core Values should be the lens through which you watch the team's presentations. All team members should demonstrate the Core Values in everything they do. This rubric should be used to record the Core Values observed thoughout the judging session. Core Values will also be evaluated at each Robot Game with *Gracious Professionalism®* scores, which will feed into a team's overall Core Values rank.

If the team is a candi...

☐ Breakthrou
☐ Rising All-St
☐ Motivate

BEGINNING Minimally observed across the team. 1	DEVELOPING Inconsistently observed across the team. 2	
DISCOVERY – Team explored new skills and ideas.		
☐	☐	
INNOVATION – Team used creativity and persistence to		
☐	☐	
IMPACT – Team applied what they learned to improve th		
☐	☐	
INCLUSION – Team demonstrated respect and embrac		
☐	☐	
TEAMWORK – Team clearly showed they had worked a		
☐	☐	
FUN – Teams clearly had fun and celebrated what they ha		
☐	☐	

Innovation Project

FIRST LEGO LEAGUE CHALLENGE

Team #	Team Name		Judging Room

Instructions
Teams should communicate to the judges their achievement in each of the following c
This rubric should be filled out during the Innovation Project presentation.

**Judges are required to tick one box on each separate line to indicate the level th
the team exceeds, please make a short comment in the Exceeds box.**

BEGINNING 1	DEVELOPING 2	A
IDENTIFY – Team had a clearly defined problem that was well researched.		
☐ Problem not clearly defined	☐ Partially clear definition of the problem	☐ Cle
☐ Minimal research	☐ Partial research from more than one source	☐ Cle var
DESIGN – Team generated innovative ideas independently before selecting and p		
☐ Minimal evidence of an inclusive selection process	☐ Partial evidence of an inclusive selection process	☐ Cle sel
☐ Minimal evidence of an effective plan	☐ Partial evidence of an effective plan	☐ Cle pla
CREATE – Team developed an original idea or built on an existing one with a pro		
☐ Minimal development of innovative solution	☐ Partial development of innovative solution	☐ Cle inn
☐ Unclear model/drawing of solution	☐ Simple model/drawing that helps to share the solution	☐ De hel
ITERATE – Team shared their ideas, collected feedback, and included improveme		
☐ Minimal sharing of their solution	☐ Shared their solution with user OR professional	☐ Sh AN
☐ Minimal evidence of improvements in their solution	☐ Partial evidence of improvements in their solution	☐ Cle imp
COMMUNICATE – Team shared a creative and effective presentation of their cu		
☐ Presentation minimally engaging	☐ Presentation partially engaging	☐ Pr
☐ Solution and its potential impact on others unclear	☐ Solution and its potential impact on others partially clear	☐ So im

Robot Design

FIRST LEGO LEAGUE CHALLENGE

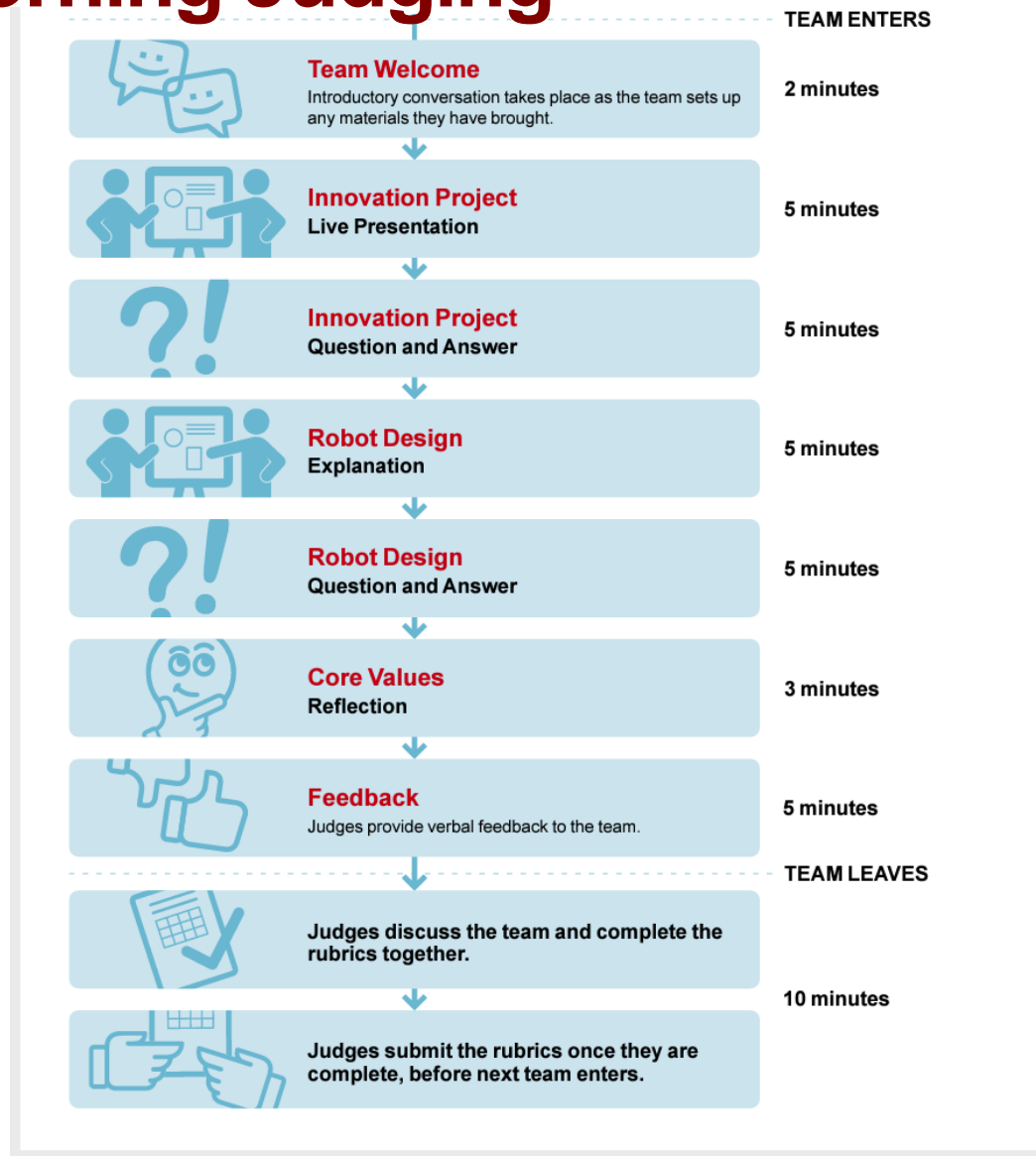| Team #	Team Name	Judging Room

Instructions
Teams should communicate to the judges their achievement in each of the following criteria.
This rubric should be filled out during the Robot Design explanation.

Judges are required to tick one box on each separate line to indicate the level the team has achieved. If the team exceeds, please make a short comment in the Exceeds box.

BEGINNING 1	DEVELOPING 2	ACCOMPLISHED 3	EXCEEDS 4 How has the team exceeded?
IDENTIFY – Team had a clearly defined mission strategy and explored building and coding skills they needed.			
☐ Unclear mission strategy	☐ Partially clear mission strategy	☐ Clear mission strategy	☐
☐ Limited evidence of building and coding skills in all team members	☐ Inconsistent evidence of building and coding skills in all team members	☐ Consistent evidence of building and coding skills in all team members	☐
DESIGN – Team produced innovative designs and a clear workplan, seeking guidance as needed.			
☐ Minimal evidence of an effective plan	☐ Partial evidence of an effective plan	☐ Clear evidence of an effective plan	☐
☐ Minimal explanation of robot and code's innovative features	☐ Partial explanation of robot and code's innovative features	☐ Clear explanation of robot and code's innovative features	☐
CREATE – Team developed an effective robot and code solution matching their mission strategy.			
☐ Limited explanation of their robot and its attachment and sensor functionality	☐ Simple explanation of their robot and its attachment and sensor functionality	☐ Detailed explanation of their robot and its attachment and sensor functionality	☐
☐ Unclear explanation of how code makes their robot act	☐ Partially clear explanation of how code makes their robot act	☐ Clear explanation of how code makes their robot act	☐
ITERATE – Team repeatedly tested their robot and code to identify areas for improvement and incorporated the findings into their current solution.			
☐ Minimal evidence of testing their robot and code	☐ Partial evidence of testing their robot and code	☐ Clear evidence of testing their robot and code	☐
☐ Minimal evidence their robot and code was improved	☐ Partial evidence their robot and code was improved	☐ Clear evidence their robot and code was improved	☐
COMMUNICATE – Team's explanation of the robot design process was effective and showed how all team members have been involved.			

Western PA FLL Grand Championship
Saturday Morning Judging

Western PA FLL Grand Championship
Saturday Morning Judging

Determining Callback Teams

Rooms 1-6: Start at 8:30 with teams every 40 minutes until 11:40

Rooms 7-12: Start at 8:50 with teams every 40 minutes until Noon

Start	End	Batch 1 Judges					
		Room 113 / Room 1	Room 111 / Room 2	Room 110 / Room 3	Room 109 / Room 4	Room 108 / Room 5	Room 107 / Room 6
8:30 AM	9:00 AM	1 / #N/A	2 / #N/A	3 / #N/A	4 / #N/A	5 / #N/A	6 / #N/A
9:10 AM	9:40 AM	13 / #N/A	14 / #N/A	15 / #N/A	16 / #N/A	17 / #N/A	18 / #N/A
9:50 AM	10:20 AM	25 / #N/A	26 / #N/A	27 / #N/A	28 / #N/A	29 / #N/A	30 / #N/A
10:30 AM	11:00 AM	37 / #N/A	38 / #N/A	39 / #N/A	40	41	42
11:10 AM	11:40 AM	49 / #N/A	50 / #N/A	51 / #N/A			

Start	End	Batch 2 Judges					
		Room 106 / Room 7	Room 105 / Room 8	Room 104 / Room 9	Room 103 / Room 10	Room 102 / Room 11	Room 101 / Room 12
8:50 AM	9:20 AM	7 / #N/A	8 / #N/A	9 / #N/A	10 / #N/A	11 / #N/A	12 / #N/A
9:30 AM	10:00 AM	19 / #N/A	20 / #N/A	21 / #N/A	22 / #N/A	23 / #N/A	24 / #N/A
10:10 AM	10:40 AM	31 / #N/A	32 / #N/A	33 / #N/A	34 / #N/A	35 / #N/A	36 / #N/A
10:50 AM	11:20 AM	43 / #N/A	44 / #N/A	45 / #N/A	46 / #N/A	47 / #N/A	48 / #N/A
11:30 AM	12:00 AM	55 / #N/A	56 / #N/A	57 / #N/A	58 / #N/A	59 / #N/A	60 / #N/A

Item of Note: Morning judging rooms will NOT have mission tables.

Western PA FLL Grand Championship
Key Locations and Logistics

Callback Discussions:

Scheduled Interviews and In-Pit Follow-ups
(Afternoon)

- ❑ Call Back Team List and Schedule Will Be Published During Lunch

- ❑ Locations for interviews are TBD but will be provided.

- ❑ Scheduled interviews will attempt to minimize conflicts with Robot game. But in event of a conflict, prioritize call backs – we will fit you in at the table.

- ❑ Callbacks are a mark of distinction but are not required to win an award.

Western PA FLL Grand Championship
Saturday Afternoon Callback Judging

Callbacks are Separated by Category

Two rooms for each callback category:

Start	End		Robot Design A	Robot Design B	Innovation Project A	Innovation Project B	Core Values A	Core Values B
			Room 113	Room 111	Room 107	Room 106	Room 102	Room 101
			With Mission Table	With Mission Table				
2:00 PM	2:07 PM		1	2	3	4	49	50
2:07 PM	2:15 PM		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
2:15 PM	2:22 PM		5	6	7	8	51	52
2:22 PM	2:30 PM		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
2:30 PM	2:37 PM		9	10	11	12	53	54
2:37 PM	2:45 PM		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
2:45 PM	2:52 PM		13	14	15	16	55	56
2:52 PM	3:00 PM		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
3:00 PM	3:07 PM		17	18	19	20	57	58
3:07 PM	3:15 PM		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
3:15 PM	3:22 PM		21	22	23	24	59	60
3:22 PM	3:30 PM		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Item of Note: Afternoon judging rooms WILL have mission tables.
Judging will be scheduled to NOT conflict with game matches, but if a conflict exists, please prioritize the judging sessions.

Western PA FLL Grand Championship
Robot Game

- Four official rounds

- Time in-between to make some refinements

- Final ranking based on highest of four rounds

Western PA FLL Grand Championship
FLL Championship Awards

Champions Award *(1st Place, 2 Runners up)*
Celebrating team that most embodies the FIRST LEGO League Challenge experience, by fully embracing our Core Values while achieving excellence and innovation in Robot Performance

Robot Design & Programming Award *(1st, 2nd & 3rd Place)*
This team uses outstanding programming principles and solid engineering practices to develop a robot that is mechanically sound, durable, efficient and highly capable of performing challenge missions.

Innovation Project Award *(1st, 2nd & 3rd Place)*
This team utilizes diverse resources for their Innovation Project to help them gain a comprehensive understanding of their problem, have a creative, well-researched solution and effectively communicate their findings to judges and the community

Core Values Award *(1st, 2nd & 3rd Place)*
This team displays extraordinary enthusiasm and spirit, knows they can accomplish more together than they could as individual, and shows each other and other teams respect at all times

Robot Performance Award *(1st – 6th Place)*
This award celebrates a team that scores the most points during the Robot Game. Teams compete in up to Four 2.5 minute matches and their highest score counts

Western PA FLL Grand Championship
Key Logistics

Volunteers: **Appreciate teams providing volunteers** (Sat)

    https://www.signupgenius.com/go/5080848A8AB2FA6F49-45823186-2023#/

Pit Area *(Friday after 8:00 and Saturday)***:**   **Aliquippa Gymnasiums**
- 8 Foot Tables!
- Cluster of 6 tables
- Power outlet close by

Robot Game Area: **6 Competition Tables in the Alumni Gymnasium**
- "On-Deck Area" for next 6 teams
- 4 team members up to the table

Practice Tables: **14 Practice Tables in the Gymnasium**
- 5 minute blocks per team
- **Bring Your Own Moveable Parts** *(Mark and and keep track of them)*
- Please reset tables when completed

Concessions / Food: **Concessions available for purchase at Gym**
Pizza is available for Pre-Order at:

(https://forms.gle/Zeoqy1tNm77MzT9KA)

Western PA FLL Grand Championship
Post Season

**Multiple Post Season
Opportunities**

PA State Wide Competition
in February/March to Determine Teams That Will Represent State at World Festival and Other Major US OPEN Tournaments

Western PA FLL Grand Championship
Make Sure You Bring…

- Print Out of Team Roster from FIRST Inspires Dashboard showing consent authorization

- Team robot, batteries and spare parts

- Computer and charger

- USB Cable

- Power strip

- Any materials the team will use for your various judging sessions

- Team Pit area decorations (optional)

- Fun, inexpensive items to trade with other teams (optional)

Final Thoughts...

❑ **All Volunteer Event**

❑ **Lets Focus on Keeping This a Fun Event for the Kids...**

You are an inspiration to them

Agenda

○ Welcome

○ Recap of Season to Date

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Q&A

Robot
Game
Mission
Video