

# The 2017 Robot Game

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# Agenda

- Missions
- Match & Scoring Mechanics
- Be aware of these rules
  - Significant changes for Hydro Dynamics
  - Frequently violated rules
- Suggestions
- Questions

# Missions (1)

- **M01** - Pipe Removal: **20**
- **M02** - Flow: **25**
- **M03** - Pump Addition: **20**
- **M04** - Rain: **20**
- **M05** - Filter: **30**
- **M06** - Water Treatment: **20**
- **M07** - Fountain: **20**
- **M08** - Manhole Covers: **15 each with 30 bonus**

# Missions (2)

- **M09** - Tripod: **15 or 20**
- **M10** - Pipe Replacement: **20**
- **M11** - Pipe Construction: **15 or 20**
- **M12** - Sludge: **30**
- **M13** - Flower: **30 with 30 bonus**
- **M14** - Water Well: **15 or 25**
- **M15** - Fire: **25**

# Missions (3)

- **M16** - Water Collection:
  - At least 1 Rain: **10**
  - Big Water: **10 each with 30 bonus**
  - Target must stay east of Off-Limits Line
- **M17** - Slingshot: **20 with 15 bonus**
- **M18** - Faucet: **25**
- **Penalties** - 5 each (6)

# Match and Scoring Mechanics

- Before the match:
  - The referee will have the kids verify the table is set up per rules
  - The two students at the table will perform sensor calibration, robot setup, and program selection, and arrange objects for storage
- After the match, the referee will review the table's current position with the students and will mark the score sheet
- After discussion (if necessary), students will sign the score sheet. Questions or disputes to be handled by the head referee (or designee in case of conflict of interest) if needed.
- Students take the score sheet to the scorers' table

# Significant Rules Changes

- Transported (D10) wording changed to include “anything”
- “In” (D07) **may** have been changed (penultimate diagram). Stay tuned; I’ll post an update to my website when this is clarified.
- Robot restricted to 12” at launch (R13)
- Mission models that were launched from Base are not confiscated after an Interruption (R14 & Update 1)
- Pay attention to the underlined text and the asterisks in the Mission rules; they are important for understanding the mission scoring.
- Assume that **every** rule has changed from previous years. Students need to focus on **this year's** rules.

# Frequently Violated Rules

- Electronic equipment allowed (R02 – R05)
  - Including bringing computers or phones to a match
- Wires are part of the robot & must be in base when Launching the robot (R13)
- Can't touch jigs or robot during Launching (R13)
- Interrupting (D09) a robot just after Launching (R13)
- Taking apart or connecting mission models (R11)
- Touching the field after the match before the referee has gone over the results with the students and they've signed the score sheet



# Resources

- Hydro Dynamics challenge:  
<https://www.firstinspires.org/resource-library/fll/hydro-dynamics-challenge-updates-and-resources>
- FLL forums:  
<https://forums.usfirst.org/forum/general-discussions/first-programs/first-lego-league>
- KC Head Referee
  - Web site:  
<https://sites.google.com/view/kcflref/home>
  - Email: kcFLLref@gmail.com

# Suggestions

- Make sure your students know the rules:
  - Quiz them, and make them answer their own questions
  - don't build a reliance on the coach or mentors.
  - This helps them focus on solving real problems, not imaginary missions or self-imposed problems
- Understand rules precedence (GP5) – 1) Updates, 2) Missions & Field Setup, 3) Rules text, 4) Local Head Ref
- Read and understand all updates
- Have the kids perform experiments to determine solutions. Don't let them guess or make assumptions.
- Tournament tables and Models are NOT exactly like yours; students need to be prepared for this.

# Questions?