What's New in Botball 2024

Botball Community
- The Youth Advisory Council (YAC) is up and running. Reach out on the Discord if you want to join.
  - YAC is a student organization that provides feedback directly to KIPR and helps plan and organize some student activities at tournaments and GCER.

Kit Part Changes in the 2024 Kit
- Only Wombat controllers are allowed on competition robots.
- NO Igus parts are permitted. This includes the slide, guides, screws, and chain.
- Create 2 or Create 3 are allowed.
  - Create 2: Create Brackets can only be mounted to the Create 2 for teams using the Create 2.
- No LEGO treads are allowed.
- ABS Plastic Rod is added to the kit to help replace the Igus linear slide. Please note the special rules concerning the use of plastic rods.
- Many teams, if they received a new Wombat this year, will have a new camera. Both the previous camera and this one are allowed.

Changes in Documentation and Surveys
- There will be a pre-tournament online coach survey
- There will be pre-tournament online student surveys that all team members must complete.
- Period one, two, and three documentation submissions will have new requirements (please refer to team homebase for specific details)
- Onsite Presentation will also have new requirements (please refer to team homebase for specific information)

Rule Changes
A few significant changes/clarifications were made to the rules this year.

- Team robot challenges at tournaments have new guidelines.
- Teams may not cover or hide their robots once they enter the pit area.
- The head judge MAY ask for a template for the amount of paper and foam board used on an entry.
- Robot Logistics – There are two starting boxes this year. The largest of the two is 15" tall, and the smaller is 20" tall.

Game Board Changes
On the Botball Game Board this year, there are new mechanisms and game pieces that have yet to be a part of the game in the past and that teams should be aware of.

- *Space Dock* Equipment (purple noodles) drop – Teams can release the equipment from the Space Dock at any time by flipping the *Space Dock Switch*. You can have a student drop the Equipment for practice tables when the robot flips the switch.
- The *Flag* is raised by activating the touch sensor inside the *Flag Astronaut Station.* For practice tables, you can assume that the flag would rise if a robot puts an astronaut in

the coupler and pushes it down. KIPR can provide an STL file for the touch sensor holder we will use

- Moon Base – KIPR provided templates for constructing all the plastic sign objects. You could use cardboard and the same templates if that is easier.
- Game Board dimensions are also given from center to center for couplers. This will allow teams to use PVC couplers other than the Lasco brand to construct a table to our specifications. KIPR has also provided dimensions between couplers as well as coupler sizes for dealing with different brands of couplers.
- Teams **must** place the 5 *Astronauts* inside *Area 3* before the start of the game.
- Teams **must** place the *Lava Tube Cap* somewhere in either of their start boxes before the start of the game.
- *Flags*- Teams must bring their flag that meets all rule specifications to use on the *Flag Pole.* A flag is **required** in order to get points for raising the flag.
- *Lunar Rocks- These are irregular in color, texture, and shape; teams cannot specify the color, location,* or orientation of the rocks.