# FIRST Games Staff Picks

Created as an activity for the *FIRST* Robotics Competition at Home Challenge: Game Design Competition





**FIRST** TECH CHALLENGE





Alex Herreid

*FIRST* Robotics Competition Software Engineer & *FIRST* Robotics Competition Game Design Committee Member

Giant yoga balls from *FIRST* Overdrive in 2008

Robot's had to handle a large, heavy game object and be able to both acquire and control the ball, not just shoot it. Robot's had to either throw the ball over a bar, or be able to release it so it would roll under on its own and reacquire it on the other side. They could not carry it under the bar or it would not score points!













*FIRST* Robotics Competition Systems Engineer & *FIRST* Robotics Competition Game Design Committee Member

One of my favorite game elements was the human player strategy component that the Vault added in the 2018 FRC game, *FIRST*<sup>®</sup> POWER UP<sup>SM</sup>

I enjoy games with a depth of strategy to analyze. The traditional role of the human player involves introducing game pieces into the field. The Vault added a unique strategic depth to the Human Player role. With the Vault, Human Players did more. They were scoring the game pieces and choosing when to activate power ups on the field to help their alliance. Power ups were not only dependent on when they were activated but also the quantity of power cubes in their shelf. The human players had more choices to make, and the strategy was on more than just the robots!











*FIRST* Robotics Competition Mechanical Engineer & *FIRST* Robotics Competition Game Design Committee Member

One of my favorite game dynamics was the balance between cycling and full-court shooting in the 2013 FRC game, Ultimate Ascent

I think it's great when a game encourages diversity of robot strategy and design. In the 2013 game, the rules and game piece dynamics allowed teams to try shooting the frisbees all the way across the field, from the feeder station to the goal. This was a big mix-up from the more traditional strategy of cycling to shoot from much closer.

Both strategies came with advantages and disadvantages. 7 out of the 8 alliances that made it to Championship division finals made frequent use of full-court shooting, but in the end cycling prevailed, as seen in <u>this match</u> video.











Chris Rake

### FIRST Vice President of Programs

## The bridge from FRC 2012 Rebound Rumble

The audience held their collective breath, will two robots balance? Then when three robots balanced we lost our minds!













*FIRST* Robotics Competition Senior Systems Engineer & *FIRST* Robotics Competition Game Design Committee Member

One of my favorite game elements is magnet balls used in the 2011-2012 FTC Game "Bowled Over!"

I love game pieces or field elements that have hidden characteristics that can't be observed by a robot operator or casual spectator but can easily be observed by a carefully designed robot. In Bowled Over!, 12% of the racquet balls on the field had magnets inserted into them – robots that correctly identified which balls had magnets could get a bonus by placing them into an off-field goal that would illuminate when a magnet-equipped ball was present.













Fiona Hanlon

FIRST Robotics Competition Program Specialist & FIRST Robotics Competition Game Design Committee Member

2016 FIRST Robotics Competition Stronghold - Defenses

I thought the Defenses from 2016 was a super interesting dynamic and brought a new and unique challenge to teams. The different defenses gave teams options for specific components to design their robot to and some of these even put additional constraints on teams.











### FIRST Lego League Community Engagement Manager

2017-2018 FTC Relic Recovery – the Relic Honorable Mention – FLL Chicken

It was an unusual shape, which I think created an extra challenge and it also really aided the storytelling of the game. I kind of dig the unusual game pieces and anytime we can sneak in a little bit of humor, I think our games are better for it.

The game animation can be found <u>here</u>.

Honorable mention:

I LOVE the FLL chicken and really wish the older programs would consider doing something as a nod to it. He's appeared in a few different FLL Challenges – although oddly not ANIMAL ALLIES – and teams get kind of excited whenever he returns in one form or another.















Kelly Carlson

*FIRST* Robotics Competition Mechanical Engineer & *FIRST* Robotics Competition Game Design Committee Member

One of my favorite game dynamics was robots-lifting-robots in the 2012-2013 FTC Game "Ring It Up"

I love it when robots have to work together to complete a task, and I think that Ring It Up took it to another level when FTC robots had to support each other to score points!













Krista Pratt

### FIRST Robotics Competition Logistics Manager

### 2012 FRC Rebound Rumble – Coopertition Bridge

This is my favorite game to date. It was easy to explain to anyone not familiar with *FIRST* Robotics Competition. The best part was the Coopertition bridge where a red alliance robot and blue alliance robot had to work together to balance on the same bridge to score the Coopertition point.











*FIRST* Robotics Competition Senior Electrical Engineering Manager & *FIRST* Robotics Competition Game Design Committee Member

I've always been a big fan of dynamic field elements, and my favorite example is probably the Rack from 2007's RACK 'N' ROLL.

Dynamic game elements add an aspect of unpredictability to game play and scoring, which I really like. All the pegs of the Rack could move, and moving one had some impact on all the others. The <u>Game Animation</u>, and <u>this match</u> from the Newton Division Finals at the FIRST Championship highlight this well.









