



## 2025-26 Fluid Power Vehicle Challenge Program Updates

Please see the [Overview, Rules and Awards document](#) for complete details.

There will be three final competition sites: Sarasota, FL, Cedar Rapids, IA, and Rockford, IL.

- a. Sun Hydraulics will host one event at their facility in Florida: April 8-10, 2026.
  - b. IFP Motion Solutions Inc. will host one event at their facility in Iowa: April 15-17, 2026.
  - c. IMI plc will host one event at their facility in Illinois: April 22-24, 2026.
- ☒ The FPVC website has been redesigned with tabs in the top navigation bar to help you find materials more easily
  - ☒ The presentation templates for the Midway Review and Final Presentations have been updated. The Midway Review Template includes a checklist of items to report. Please do not verbally report on these items during your presentations.
  - ☒ We will be holding two calls with teams this year. Attendance on these calls is optional. It is an opportunity for teams to share questions and seek answers from one another.

### Rule Updates

*Changes in red*

#### Sprint Race

#1. Riders are allotted 5 minutes just before the sprint race to store hydraulic energy in their accumulator (charge the accumulator). The accumulator cannot have any hydraulic charge before this period.

#### Efficiency Race

#3. The vehicle must travel a minimum distance of 100 ft. Braking is not required. ~~Vehicle will go as far as it can before coming to a complete stop.~~

#8. 5 minutes will be allotted to charge the accumulator. No prior charging will be allowed. All charging will be human powered only.

#### Regenerative Braking Demonstration

#3. No fluid pressure in accumulators in advance of the demonstration and must be confirmed at zero when the regen circuit is engaged.

#11. Riders can only build pressure in the accumulator while they are braking to recover as much energy as possible as they actively advance. Pedaling is not permitted after the line to begin regeneration or after the vehicle comes to a stop.

#12. The accumulator can only be charged by kinetic energy from braking, not from pedaling or other external sources.

## Vehicle Requirements Update

#3. **Except for hydraulics, no energy for propulsion purposes can be stored while the bike is stationary. Use of stored energy for electronics and pneumatics will be for control purposes only.**  
~~Use of stored energy for electronics and pneumatics will be for control purposes only and not for propulsion of the vehicle.~~

- #15. Reservoirs, components, and plumbing must meet reasonable industry standards.
- a) No duct tape or other examples of insufficient workmanship.
  - b) **Teams must take sufficient steps to use reliable materials and building techniques to prevent leaks.**

## Award Updates

### Safety Award

To be considered for the award, teams must display a **safety mindset and** take sufficient steps to construct a safe, lightweight and reliable vehicle **for the operator**. Funds will be distributed directly to team participants.

### Midway Review Presentation and Final Presentation Awards

These awards have been combined into one award worth \$1,000.