

FireFly Automatrix Announces AMP-L100 Robotic Mower Advancements Ahead of GCSAA 2026

Salt Lake City, UT — January 2026 — [FireFly Automatrix](#), a leader in fully electric autonomous turf equipment, delivered a series of significant platform enhancements over the past year on its AMP-L100 robotic fairway mowers.

FireFly has seen increased adoption rates and continually strives to deliver more capabilities and features, with machines operating daily in real-world golf course conditions across North America. This growing installed base reflects a proven platform that is delivering measurable labor savings, improved consistency, and expanded operational flexibility for golf course superintendents.

Major AMP-L100 Enhancements Delivered in 2025

Throughout 2025, FireFly focused on features that reduce daily operator involvement, improve reliability, and give superintendents greater control over how and where autonomous mowing occurs. Many of these capabilities were developed in response to customer feedback from courses running AMP-L100 units.

Path Linking allows AMP-L100 robots to autonomously navigate between fairways without requiring manual repositioning. This dramatically reduces operator involvement, eliminates unnecessary stops and starts, and allows crews to manage larger mowing programs with fewer touchpoints.

SmartStart™ gives operators the flexibility to place the AMP-L100 anywhere within a connected operating area. The machine autonomously finds its way to the selected starting point and begins mowing, allowing for faster daily startups and simplified workflows, especially when managing multiple machines or staggered start times.

Exclusion Zones allow superintendents to map and save permanent areas the mower must never enter, such as bunkers, lakes, native areas, or other hazards. These zones remain enforced at all times, even if they are located inside a fairway boundary or within an active operating area.

Auto Sectioning intelligently breaks down the fairway into sections to mow and intelligently determines the order in which to mow them to minimize border following when mowing discontinuous swaths while dramatically increasing productivity. This improves cut consistency, reduces wear on turf, and provides more efficient use of machine runtime.

50/50 (Tuxedo) Fairway Patterns

The AMP-L100 offers advanced support for 50/50 fairway mowing patterns while eliminating many of the traditional challenges associated with creating and maintaining these patterns.

FireFly gives users extensive control over how and where the machine turns, allowing superintendents to choose turn styles that best match turf conditions, fairway shape, and presentation goals. Just as importantly, the AMP-L100 uses a proprietary algorithm to generate and maintain the center spline of the fairway automatically with the ability for the user to make adjustments to it and see results in real time in its QuickPlan™ app.

Instead of requiring the user to physically drive and map a center line—an often time-consuming and tedious process—the system mathematically creates a perfectly smooth, consistent center spline that never changes over time. This spline is designed to:

- Split the fairway precisely in half from edge to edge
- Always point cleanly toward the center of the tees and the center of the green
- Maintain a smooth, flowing geometry that enhances visual symmetry and striping quality

Because the center spline is algorithmically generated rather than manually driven, it remains perfectly consistent from mow to mow, eliminating subtle drift or inconsistencies that can occur with hand-mapped center lines.

The FireFly 50/50 pattern delivers tournament-quality fairway presentation with far less setup time, no repeated remapping, and a consistently clean, symmetrical look that elevates the overall aesthetic of the golf course.

Starlink Integration

Built-in Starlink connectivity improves reliability in areas with limited or inconsistent cellular coverage, enabling consistent remote monitoring, control, and data visibility. This option gives users enhanced confidence that autonomous operations stay connected, even on remote or challenging properties.

Powered Rear Roller Brushes

Powered rear roller brushes improve after-cut appearance by eliminating grass clumping while continuously cleaning the rear roller to prevent buildup that can change the height of cut.

Obstacle Detection Improvements

In 2025, FireFly delivered refinements to obstacle detection behavior focused on smoother decision-making and fewer unnecessary stops.

Major Capabilities Coming in 2026

FireFly continues to build on the AMP-L100's connected architecture, with additional high-impact features scheduled for release in 2026.

Advanced Vision-Based Obstacle Detection

A major upgrade to obstacle detection is planned for 2026, introducing vision-based capabilities that will enable:

- Detection of smaller objects
- Object classification
- Improved understanding of complex environments

Management Areas are designed for temporary or changing course conditions such as wet areas after storms, newly sodded turf, high-wear cart traffic zones, or areas under construction.

Within Management Areas, superintendents can apply specific rules, including:

- Avoiding the area entirely
- Driving through with cutting units off
- Transporting through with decks raised
- Applying reduced speeds or other behaviors

Slow Zones allow superintendents to permanently map areas where the mower should automatically reduce speed, such as drainage features in fairways, concrete cart paths, or rough transitions.

Verticutting Capability

Verticutting on the AMP-L100 enables superintendents to perform light, frequent vertical mowing passes that help manage thatch, improve turf density, and promote more upright grass growth. By integrating verticutting into an autonomous platform, courses can apply this practice more consistently and at optimal intervals, rather than scheduling it around labor availability.

This capability allows superintendents to proactively maintain healthier, more uniform fairways while reducing the need for disruptive, labor-intensive verticutting operations. Over time, this supports improved ball lie, smoother playing surfaces, and more resilient turf throughout the growing season.

Mowing Playlists

Mowing Playlists allow multiple fairways and paths to be queued and executed in sequence.

A Continuously Improving Platform

As a fully connected product, the AMP-L100 continues to improve over time through software updates and system enhancements. FireFly works closely with its customer base, leveraging superintendent expertise to guide feature development and ensure new capabilities are practical, intuitive, and valuable in day-to-day operations.

A Strong, Growing Partner for the Long Term

With a rapidly expanding installed base, a mature and continuously improving product platform, and a growing roadmap of autonomous solutions, FireFly Automatrix is positioned as a stable, long-term partner for golf courses investing in the future of turf management.

The AMP-L100 is operating today on courses across the country, delivering consistent results and evolving alongside the needs of modern golf course operations.

About FireFly Automatrix

FireFly Automatrix is a robotics technology company pioneering automation and electrification in turfgrass management since 2010. The company's product portfolio includes Precision Automated Turf Harvesters (PATH) and the Autonomous Mowing Platform (AMP), featuring all-electric, robotic mowers. Supported by proprietary software, patented mechatronic systems, and a vertically integrated ecosystem of parts, services, and analytics, FireFly's solutions address critical labor, financial, and environmental challenges. For more information about FireFly Automatrix and its leadership team, visit <https://fireflyautomatrix.com/>.

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