



Product brochure

A+ Advanced Take the next step on your road to **autonomy**



Advanced software solutions

Designed for in-house engineering teams, A+ software is available in Essentials or Advanced. Both consist of preprogrammed and pretested software blocks built into Danfoss' XM100 controller hardware. Each block covers vital areas such as positioning and navigation and eliminates the need to design and develop autonomous software programs from scratch.

What's Advanced?

A paid solution, A+ Advanced includes all A+ Essentials software – plus advanced path following blocks and access to future advanced features and updates.

- Positioning blocks to locate or position a vehicle at a precise location
- Navigation blocks to plan and navigate a path for a machine to follow

A+ Advanced blocks

- **Planar Surface Segmentation** uses a LiDAR scanner to collect point cloud data and identify the dominant plane.
- **Path Recorder** records the path that a machine travels, storing the data in a JSON file AND temporary storage, that can then be used to make the vehicle follow the path that has been recorded.
- **Path Loader*** reads path data from a JSON file and writes it to data lockers for other blocks to use it.
- **Path Converter** allows users to input known paths, as an alternative to recorded paths.
- **Path Extract** allows users to access path information contained in data lockers, which can be used for debugging, verification, something else application-specific.
- **Path Follower Advanced** allows users to navigate a machine along a desired path by outputting steering commands and (optionally) propel commands.

Benefits

- Speed up development time
- Reduce development costs
- Robust, tried and tested software
- Get to market faster
- Lead your market

*requires XM100 hardware v3.21 onwards



ENGINEERING TOMORROW

Make your vehicle **autonomous** and **get to market faster**

Precision • Productivity • Safety

Increase your machine's precision, productivity, and safety – and its value, too, using A+ software solutions from Danfoss Autonomy.

Don't have autonomous engineering services in-house? The ACES can help. A dedicated team of autonomous engineering experts, they do the work so you don't have to.

Advanced

New autonomous software blocks

For more information click here: danfoss.com/en/products/dps/autonomy/

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.