

AERO

**OPERATING-ROOM FOOT CONTROLS HAVE TO
BE RELIABLE, CLEANABLE, AND CONFIGURABLE
AERO WAS ENGINEERED TO BE ALL THREE.**



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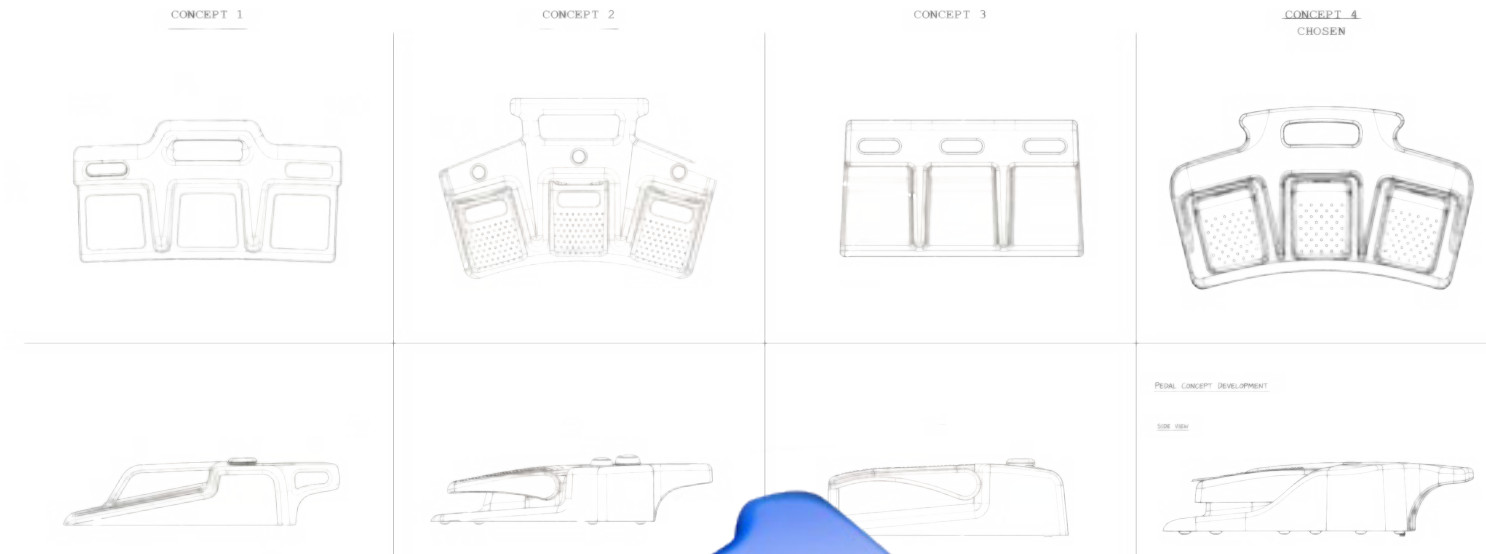
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The Challenge



PEDAL CONCEPT DEVELOPMENT



Our previous medical channel, the Crescent, carried limits that years of field feedback made plain. Liquid pooled on the base plate and worked past it, and units came back corroded. The aggressive surface texture trapped surgical debris and resisted cleaning. Button placement was tight, the battery needed tools to reach, and the cordset's integrated housing put a material handling burden on the OEM's line. Customers also pushed for a smaller overall footprint, with a more efficient use of space on the floor and in storage. AERO was built to answer all of it.



The Crescent remains an active part of the Linemaster product line and continues to serve customers across a range of medical applications. The Aero was developed to meet evolving demands in surgical environments, expanding what Linemaster offers rather than replacing what already works.





Toolless Battery Access



Powder Coated Toe Loop Option

What We Built

AERO is a configurable platform optimized for customization. Each OEM shapes one proven base into the control their system needs: single to quadruple pedals, linear and aquiline inputs, and custom button placement and color. From there, every choice answers something the Crescent could not do.



For Reliability

The wear plates are validated well past a million cycles, the springs are redundant, and the flip up pedal can carry redundant hall sensors with signal comparison. The electronics are self-calibrating, the materials resist corrosion and chipping, and the actuation runs on smooth bearings tuned to keep the foot from tiring through a long procedure.

For the OEM's Bottom Line

A doghouse cord harness sits outside the switch, which removes the bulky integrated housing and the palletizing burden it caused. The buttons are connectorized, serviceable, and route through the channel after assembly. Thread inserts replace self tapping screws, and a slip fit, center punch retained pin replaces the press fit design, both cutting the risk of damage during assembly.

For Cleaning

The pedal flips up on a patented rolling hinge, so the surface beneath it can be cleaned and fluid sheds instead of pooling. The surface texture is reduced, and the channel overlaps the base plate, so there is no exposed paint to chip and no seam to collect liquid. The battery compartment opens without tools, with either a texture round or hexagonal cap options, both designed for gloved hands.

Rolling Hinge Design



The series carries a design patent, and the flip up rolling hinge carries a utility patent.

A powder coated toe loop option is also available, making the toe loop easy to locate and attach to the switch while softening sharp edges and reducing the risk of injury during use, a refinement driven by direct field feedback.

Regulatory & Quality

AERO is tested to IEC 60601, third edition, comes in IP68 sealed configurations, and is UL tested. Because it has already been reviewed across multiple OEMs' FDA submissions, it is familiar to reviewers, which can help smooth your own regulatory path.

IP68 Sealed



IEC 60601 & UL Tested





Why It Matters

AERO is how we work: a platform refined over years of field feedback, configured to each OEM, and built to be cleaned and trusted in the room that allows no margin for error.

Bringing a medical device to market and need a foot control that fits your system, cleans without a fight, and is already familiar to regulators? AERO is where to start. Let's talk through your application.

The Result

The proof is in where AERO ended up. It is in use across soft tissue ablation, cut and coagulation, bone shavers, pumps, ultrasounds, and X-ray imaging. Returns on record have traced to pairing or setup due to user error, not the control itself, and the wear plates are validated well past a million cycles.

What the field tells us

The customer feedback has been anonymous and, more tellingly, behavioral. Adoption was slow at first, then grew as OEMs saw the value of starting from a proven base instead of a clean sheet. The teams that adopted AERO have gone on to expand it onto additional consoles, which is the clearest signal a control has earned its place in the system.

What it comes down to, by stakeholder:



For OEM Engineers:

A configurable base that fits the application without a clean sheet design.



For Quality and Regulatory:

A device reviewers already know, tested to 60601 and sealed to IP68.



For the Surgeon:

A control that is easy to clean and comfortable to use through a long procedure.



For the OEM's Bottom Line:

Simpler cord handling and serviceable parts.

Applications

- Soft tissue ablation
- Bone shavers
- imaging equipment
- Ultrasonic aspiration
- Pump controls
- Pulse field ablation
- Light source control
- Small joint tools
- many others

50+ PLE'S

A Product Line Extension is a path to a custom foot control that starts with a proven Linemaster standard design, then modifies it to meet your brand and specification requirements, allowing you to reduce development time, lower costs, and shorten lead times compared to a fully custom build.





FOR MORE INFORMATION ON THE AERO FAMILY

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