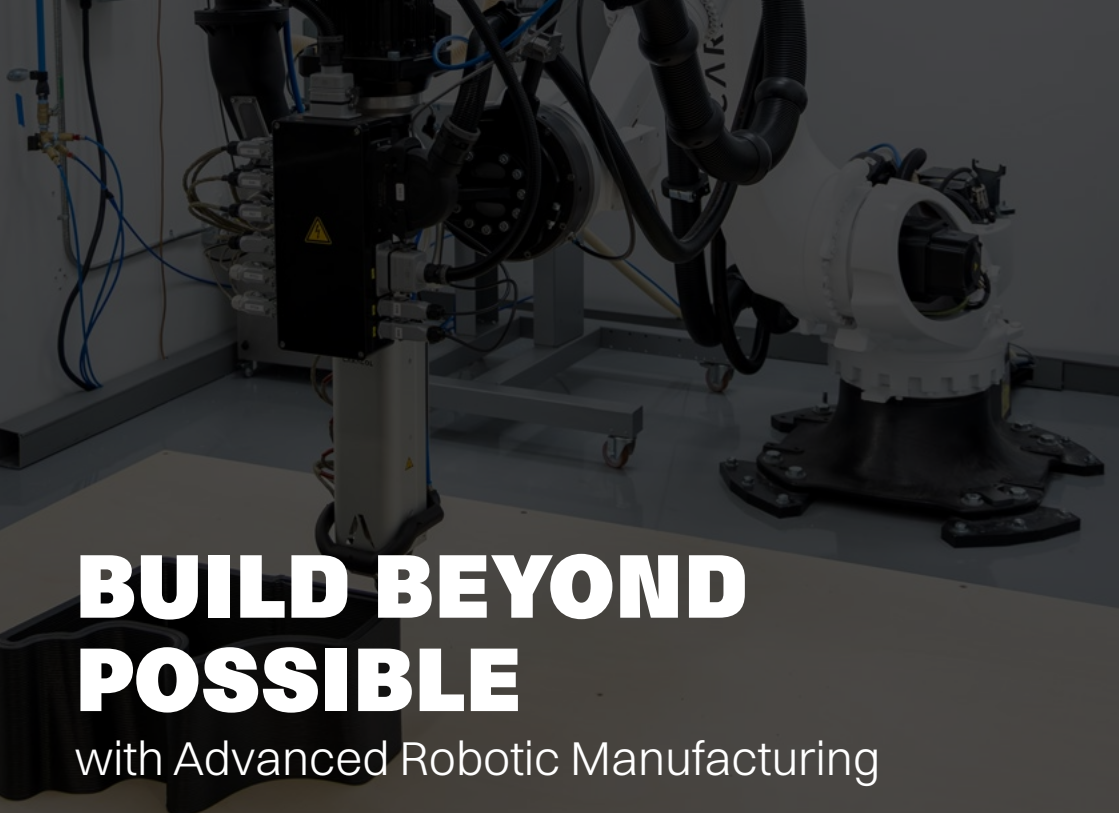


SERVICES & TRAINING

FOR ROBOTIC LFAM

**From part engineering to scaling production,
all the support and expertise you need.**

CARACOL



Robotic Advanced Manufacturing Ecosystem

Tangible benefits for your industrial production

Caracol designs and delivers its technologies as a fully integrated ecosystem: robotic hardware, software, materials, and process knowledge developed together and validated as a single system.

This gives manufacturers something that isolated technologies cannot:

**BUILD BEYOND
POSSIBLE**

with Advanced Robotic Manufacturing

Caracol is a leader in advanced manufacturing, developing robotic platforms for complex industrial production with composites and metals.

Application-first approach

Since 2015, Caracol has built its tech around one principle: provide the tools for companies to solve their real production needs, so they can produce complex, high-performance applications while cutting costs, lead times, waste, and providing greater flexibility in their parts engineering and value chains.

The company's mission is to change the manufacturing paradigm, making it more efficient, flexible, and sustainable.



One point of accountability

Work with one partner for all your needs: hardware, software, materials, process definition, and performance. Eliminates integration gaps, reduces complexity, and ensures clear results.



Part industrialization

From design through to part production engineering, you'll acquire comprehensive expertise in automation tools, managing shared data, defined parameters, and end-to-end process traceability.



On-demand & localized production

With predictable processes and qualified materials, produce closer to your point of use. This enables on-demand manufacturing, lowers logistics impact.



Scalable and repeatable models

Standardized processes, material specifications, and data allow similar production cells to replicate your manufacturing needs across multiple sites, globally.

Application development: our framework

**From concept
to industrialization.**

Caracol helps guide you through a proven methodology to ensure every project is optimized for performance, scalability, and economic viability.

Opportunity & Feasibility

Analysis of requirements and technical assessment to align the project with your industrial objectives.

Validation & Testing

A multi-step validation process, from Proof of Concept (POC) to Prototyping, supported by our internal materials lab to verify mechanical and thermal properties.

Design & Development

Our engineers refine the design for additive manufacturing (DfAM), evaluating geometry and structural needs to maximize part performance.

Production & Industrialization

Definition of the optimal process parameters and platform configuration (Heron AM or Vipra AM) for serial production.

Why partner with Caracol?

**Leverage our integrated competencies across
the value chain to gain a competitive edge.**

CERTIFIED QUALITY

Production and processes managed according to AS/EN 9100, ISO 9001 and ISO 14001 standards for mission-critical reliability and efficiency.

ADVANCED MATERIAL SCIENCE

Internal expertise to qualify high-performance polymers, composites, and metal alloys tailored to specific applications.

TECHNICAL DE-RISKING

A structured approach that validates the technology's viability before internal adoption or large-scale deployment.

SCALABLE PRODUCTION

A global decentralized network that enables localized manufacturing, reducing logistics costs and environmental impact.

MULTI-INDUSTRY EXPERTISE

Deep domain knowledge in Aerospace, Marine, Energy, and Transportation to navigate regulated market requirements.

Training & technical support

The path to operational autonomy

Investing in a Caracol platform is the beginning of a strategic partnership. Our training and support ecosystem is designed to transform operators into experts and ensure your manufacturing remains seamless, safe, and scalable.

Startup training

Included with every platform purchase. All the know-how needed to get your team operational right after installation, no waiting around.

Academy training

One intensive week (40 hours) at Caracol's facility to **fully internalize the methodology and process know-how behind every project**. A look into how Caracol engineers and industrializes an LFAM project. What you take home is a real grasp of the Design Guidelines, hands-on command of Eidos, a structured method for assessing feasibility, time producing on an actual robotic system, and the alignment between design, production, and commercial thinking.

On-Demand training

Tailored support for any of the challenges you are facing, with three ways to work together:

- **You design, we support:** you've studied the guidelines and want a check that you're on track. A session to set direction, a review of your 3D files, a slicing session to finish print-ready.
- **We do it together:** we engineer the parts live, answer questions as they come, explain each call. The fastest route to autonomy.
- **We deliver:** our Application & Engineering team handles it all and hands back files ready for production.

Our training programs:	STARTUP (Heron AM & Vipra AM)	ACADEMY (Heron AM – Heron AM Hybrid)	ON-DEMAND (Heron AM & Vipra AM)
BEST TIME TO TRAIN	During platform installation	30 days after the machine is installed	On request
DURATION	• Online Video Training (for Engineering) • 2/3 days in person (for Operators)	40 hrs	40 or 80 hrs based on your needs (extendable)
FOCUS	Basic training on all key skills needed to produce with our machines: • CAD engineering • Slicing software, • Machine operations, • Printing	360° advanced training on LFAM, learning with Caracol's experts: • Feasibility Study • CAD engineering • Slicing / path planning software • Advanced Machine Operations and Maintenance • Manufacture on-site at Caracol	Support clients in managing a whole project from design and engineering to production: • CAD/DfLFAM engineering • Material selection • Slicing/ Programming • Printing
WHERE	• Online (for Engineers) • On site (for Operators)	On-site at Caracol (We host clients at our production hub for a 360° experience)	Online / optional on-site
TARGET	Designers Engineers Operators	Operators Engineers PM Sales	Designers Engineers Operators



After-Sales Support

Reliability as a standard, not an option.

Installing your machine is only the beginning of our journey together. We provide dedicated support to ensure your manufacturing success never stops:

- Dedicated Support Team**
 Expert engineers and technicians ready to assist with remote diagnostics or on-site interventions.
- Continuous Optimization**
 We help you keep your systems updated with the latest software and hardware improvements.
- Global Reach**
 No matter where your facility is located, our team is committed to keeping your production running at full capacity.

	NO PACKAGE	LIGHT	LIGHT+	CONTINUITY (Heron AM only)	CONTINUITY+ (Heron AM only)
Warranty	✓	✓	✓	✓	✓
Yearly Maintenance		✓	✓	✓	✓
Spare parts kit		✓	✓	✓	✓
Hotline	✓	✓	✓	✓	✓
On Demand Training			✓ 40 hrs		✓ 80 hrs
Warranty extension				✓	✓

Material and process qualification

Tailoring the industrial recipe for your success

In robotic LFAM, performance is the result of the perfect synergy between material chemistry and robotic process control. While we offer an extensive portfolio of qualified polymers and metals, we understand that specific industrial applications often require custom formulations or strictly regulated manufacturing standards.

Caracol's material and process qualification service is designed to build custom solutions and establish a reliable production baseline.

We qualify materials and define the exact parameters needed to ensure that once the process is deployed, it delivers consistent, high-quality results, at every production run.



[Polymers](#)



[Metals](#)

Every material is validated for a different production challenge. Scan to explore the full portfolio: specs, applications, and real production examples across transportation, construction, and design.

● INVESTIGATION

identify target material and best suppliers

● TESTING

the material successfully deposited
is tested to define its properties

● CHARACTERIZATION

the material can be used for production

● QUALIFICATION

parameters are defined to guarantee best printability,
repeatability, and performance with the material

CARACOL

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