




Olfacore

From Input to Controlled Output

Olfacore is an adaptive intelligent production architecture that processes inputs, data and production scenarios as structured inputs. The system evaluates these inputs through matching and configuration layers, then translates the selected result into a controlled physical output.

Structure | Match | Dose | Validate

SCHOTT


Western Digital

 PyTorch



 NVIDIA
CUDA


AMD
THREADRIPPER
PRO

 ubuntu


crucial

 Claude

 BOSCH

 Black
Forest Labs

Beyond a Machine

Olfacore is not a fixed-function machine developed for a single product or industry. At its core, it is an adaptive production architecture built around input processing, matching logic, configuration management, material profiles, dosing control, measurement validation and learnable knowledge layers. The system transforms inputs from different sources, such as user preferences, technical data, recipe information, material profiles or production scenarios, into processable structures. This structure is then transferred into the physical production process through ratio, quantity, channel, sequence, tolerance and output protocol.

Built to Evolve

The value of Olfacore lies not only in its current field of application, but in its ability to accommodate new modules, material profiles, decision rules and use-case scenarios. The system is designed as an infrastructure that can evolve over time with more data, more precise control and more advanced production intelligence.

From Decision to Production

Olfacore is developed to solve the disconnect between digital decisions and physical production. It is not merely software that processes data, nor simply a machine that performs mechanical movement. It establishes a controlled bridge between decision logic and the physical execution layer.

More Than a Single Machine

Olfacore is positioned not as a fixed-task device, but as a modular technology architecture that can be adapted to different production scenarios. This approach enables hardware, software, material management, dosing control and measurement validation layers to operate together.

Built Core. Specialized by Industry.

Olfacore is designed not as a system dependent on the closed knowledge of a single industry, but as a general production intelligence core that can be adapted to different fields of application. The system contains input interpretation, proportioning, sequencing, dosing, measurement, validation, error tracking and quality control logic at its foundation. Once the field of application is defined, the relevant materials, rules, recipe structure, safety limits and output expectations of that industry are introduced into the system.

General Production Logic

Olfacore manages the processes of structuring inputs, linking them to the appropriate production configuration and transferring the result into physical output through an industry-independent production logic.

Material Learning Layer

Each material introduced into the system is treated as a learnable data object, together with its behavior, compatibility, dosing range, storage conditions, risks and production impact.

Controlled Execution

The learned knowledge is processed through matching, configuration and dosing layers. The result is transformed into a measurable, verifiable and reproducible physical output.

Industry Knowledge Layer

Every field of application has its own standards. Olfacore can operate specifically for the relevant field by being supplied with industry knowledge, regulatory structure, recipe language, quality criteria and output protocols.

From Input to Controlled Production

The Olfacore method structures inputs such as preferences, data, recipes, material profiles or production scenarios, matches them with the appropriate configuration and transfers the result into controlled physical output.

Dose

The selected configuration is converted into controlled dosing commands. The system applies the defined ratio, quantity, channel and sequence within the physical production process.

Structure

The structured input is converted into a technical format that can be associated with ratio, quantity, channel, sequence, recipe, material profile, tolerance or output protocol.

Match

The matching layer associates the structured input with the appropriate configuration. At this stage, the system evaluates variables such as material selection, dosing range, operation sequence, safety limits and production scenario together.

Validate

The output is monitored through measurement and control layers. Data such as weight, tolerance, margin of error and process records ensure that production remains verifiable and reproducible.

Interpret

The system reads user responses, technical data, material information or defined production scenarios. Raw input is transformed into a structured data format that can be technically processed.

A Computational Core for Controlled Production

Olfacore treats the dosing process not merely as a mechanical transfer, but as a computational production system in which data, matching, configuration, flow, measurement, validation and physical execution layers operate together. This architecture is supported by processor-based system control, GPU-assisted AI development, local intelligence components and learnable knowledge layers.

CPU

System Control Layer

An AMD Ryzen Threadripper-based processor architecture is positioned as the main control core managing the user interface, data processing, recipe management, configuration logic, production scenarios and hardware-software coordination.

- AMD Ryzen Threadripper
- Application Logic
- Data Processing
- Interface Operations
- Configuration Management
- Hardware Coordination
- Local System Control
- Feedback Memory

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GPU

AI Development Layer

NVIDIA GPU acceleration provides the development infrastructure for AI model experiments, matching logic, simulation, optimization, visual data processing and future learnable production layers.

- NVIDIA GPU Acceleration
- CUDA Ecosystem
- PyTorch Development
- Model Prototyping
- Simulation & Optimization
- AI-Assisted Matching
- Visual and Data Processing
- Feedback Memory

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NPU

Local Intelligence Layer

The NPU and edge intelligence approach is positioned for low-latency inference, sensor data processing and on-device local analysis in future-generation Olfacore devices

- NPU / Edge AI
- Low-Power AI Acceleration
- Sensor Data Processing
- Fast Local Response
- Edge Deployment
- Generation Embedded Models
- Future Embedded Models
- Feedback Memory

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Knowledge Layer

Material Intelligence

Olfacore's knowledge layer is fed with material profiles, recipe rules, industry data, safety limits, quality criteria, output standards and feedback records. This structure enables the system to specialize according to its field of application.

- Material Profiles
- Industry Knowledge
- Recipe Rules
- Safety Limits
- Regulatory Logic
- Output Standards
- Feedback Memory
- Optimization Data

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Controlled Output Architecture

Olfacore's physical architecture transforms structured inputs into controlled, dosable outputs through dedicated technology layers for flow control, material handling, connection, cleanliness and measurement validation.

CleanDose™

Every field of application has its own standards. Olfacore can operate specifically for the relevant field by being supplied with industry knowledge, regulatory structure, recipe language, quality criteria and output protocols.

SealDock™

A connection module that provides alignment, coupling and leak-resistant contact at the dosing point.

ValveCore™

A module developed for multi-channel selection, valve control and dosing direction.

FlowMatrix™

A manifold architecture that manages material flow, regulates channel transitions and structures flow paths.

MaterialCell™

A cartridge or reservoir structure in which material components are modularly stored, identified and connected to the system.

WeightSense™

A control module that monitors output quantity through gravimetric measurement and validation.

Modular Control

The system operates through a modular architecture in which reservoirs, channels, pumps, valves, sensors, software and control layers can be managed together. This structure allows different production scenarios to be configured without rebuilding the core architecture.

Adaptive Production Capabilities

Olfacore is built on input processing, material management, configuration, dosing, validation and optimization layers that can be structured according to different fields of application.

AI-Assisted Optimization

The AI layer supports the system in operating more adaptively across areas such as matching, parameter selection, dosing sequence, output consistency, error trends and configuration improvement.

Reproducible Output

Each output is executed according to defined ratio, quantity, sequence, tolerance and process protocol. This allows production to be recorded, monitored and reproduced under the same conditions.

Scalable Configuration

Olfacore has a flexible configuration layer that supports the addition of new recipe structures, material profiles, channel layouts, dosing sequences, output protocols and application scenarios.

Multi-Material Approach

The architecture can be configured to work with materials that have different densities, viscosities, flow behaviors, particle structures, storage requirements or dosing precision needs.

Industry Adaptation

Olfacore's knowledge layer can be expanded with industry-specific data according to the field of application. This enables the system to be specialized for different material libraries, recipe rules, regulatory limits and output standards.

What is Olfacore?

Olfacore is an adaptive intelligent production architecture that processes preferences, data and production scenarios as structured inputs, then transforms them into controlled physical output through matching, configuration and dosing layers.

Is Olfacore a product or a platform?

Olfacore is positioned not only as a single device, but as a modular production architecture that brings together input processing, material management, configuration, dosing, measurement validation and physical output layers.

Can the system be customized?

Yes. The architecture can be configured according to different reservoirs, channels, pumps, valves, sensors, material profiles, recipe structures, safety limits and production scenarios.

Who is Olfacore developed for?

Olfacore is developed for professional teams, technology partners and application development parties working with controlled dosing, personalized output, technical formulation, pilot production, material adaptation and AI-assisted production systems.

How can we collaborate with Olfacore?

Olfacore is open to strategic collaborations in material component adaptation, custom formulation development, hardware integration, software connectivity, pilot installation, application development and the creation of industry-specific knowledge layers.

FAQ QUESTIONS

Can the system be customized?

Yes. The architecture can be configured according to different reservoirs, channels, pumps, valves, sensors, material profiles, recipe structures, safety limits and production scenarios.

Is the system developed only for liquids?

Olfacore's first application focus can be built around liquids and flowable materials. However, the architecture is open-ended and can be developed according to different material profiles that require controlled dosing.

How does the system work?

The system first structures the input. It then matches this input with the appropriate material profile, recipe structure, ratio, quantity, channel, sequence and output protocol. The selected configuration is converted into dosing commands and applied to the physical output.

What stage is Olfacore currently in?

Olfacore is currently in the pre-launch development and partnership discussion stage. During this process, contacts are being conducted with technology, formulation, material, hardware, software and production partners.

Which outputs can it control?

Olfacore is designed to control production variables such as ratio, quantity, channel selection, sequence, flow, dosing sequence, tolerance, measurement validation and output protocol.

Olfacore

Adaptive intelligent production architecture.

Controlled physical output through input processing, matching, configuration, dosing and measurement validation layers.

ValveCore™ / FlowMatrix™ / MaterialCell™ / SealDock™ / CleanDose™ / WeightSense™

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