

M C P SERVER

NO CODE

CLOUD HOSTED

Drill Progression Design is a surfing coach.

Build custom training paths that adapt to wave conditions and your learning style.

Drill Progression Design builds structured training paths for mastering surfing maneuvers. It builds drill sequences based on your specific skill level, adjusts difficulty based on real-time wave conditions, and tailors instructional content to how you learn best, whether you are a visual, kinesthetic, or analytical learner.

surfing

drills

skill-progression

coaching

sports-science



The connectivity layer between AI and the world's software.



Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

Drill Progression Design MCP

4 tools available

Cloud-hosted on Vinkius

You can use this MCP to build a logical training roadmap for any surfing maneuver. Instead of guessing when to move from a basic bottom turn to a high-speed carve, you get a structured path that scales with your ability. The tool handles the heavy lifting of translating raw wave data into difficulty multipliers, so your training stays relevant to the swell you actually face. It also recognizes that not everyone learns the same way. If you need to feel the weight distribution in your feet, it adjusts the instructions to focus on kinesthetic feedback. If you prefer seeing the line, it shifts to visual cues. It acts as a technical coach that sits inside your AI client, ready to evaluate if you have met the requirements to move to a harder drill or if you should stay put and refine your current technique.

Core Capabilities

01 — Progressive Drill Generation

Your agent builds step-by-step training paths for specific surfing maneuvers.

02 — Skill Advancement Assessment

The AI evaluates if you have mastered a drill before suggesting a harder one.

03 — Environmental Adaptation

Your agent adjusts drill difficulty based on current wave conditions.

04 — Cognitive Style Matching

The tool rewrites instructions to suit visual, kinesthetic, or analytical learners.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/drill-progression-design — connect your AI agent in three steps.

- 01 Connect your AI client to the Vinkius hosted MCP.
- 02 Provide your current skill level and target maneuver.
- 03 Input current wave conditions to set the difficulty.
- 04 Select your preferred learning style for instruction.
- 05 Receive a structured, progressive training sequence.

Connect your client to Vinkius and start building drills immediately.

Built For

This MCP is built for people who want a scientific approach to surf progression.

Surf Coaches

Hand off the creation of structured, multi-stage drill sequences to the AI.

Competitive Surfers

Use the tool to manage personal skill progression and readiness assessments.

Sports Scientists

Apply structured methodologies to surf training and environmental difficulty scaling.

What Changes When You Connect

- 01 Removes guesswork from skill advancement.
- 02 Adapts training intensity to real-world wave conditions.
- 03 Personalizes coaching instructions to individual learning styles.

04 Provides a structured roadmap for maneuver mastery.

Real-World Applications

Daily Session Planning

Generate a drill sequence that matches the specific wave height and power you see at the beach.

Customized Coaching

Tailor technical instructions to match how you personally process movement and physics.

Skill Level Verification

Check if you are actually ready to attempt a more difficult maneuver based on your recent performance.

Long-term Training Roadmaps

Build a multi-stage progression for a specific maneuver like a cutback or an aerial.

4 Tools Available

#	TOOL	DESCRIPTION
01	query_drill_sequence	This tool generates a complete, progressive series of drills for a specific skill and user profile.
02	evaluate_progression_readiness	Use this to determine if you have met the necessary requirements to move from your current drill to a higher difficulty level.
03	get_environmental_modality	This tool translates raw wave conditions into a difficulty multiplier for your drill planning.
04	map_learning_style_to_drill	This tool adjusts instructional content to match your specific cognitive preference, such as visual or kinesthetic learning.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U Create a training sequence for a bottom turn for an intermediate surfer.



Stage 1: Controlled bottom turn in mellow waves. Stage 2: Increasing speed on intermediate faces. Stage 3: High-speed bottom turns in hollow conditions.

U I just finished my drill. I felt stable and had good timing. Am I ready for the next level?



Yes, based on your stable posture and timing, you have met the success criteria and are ready to attempt the next difficulty level.

U How should I adjust my instruction for a kinesthetic learner?



The instruction will now focus on physical sensations, muscle tension, and the feeling of weight distribution during the maneuver.

Frequently Asked Questions

01 How does the MCP handle different wave conditions?

It uses the `get_environmental_modality` tool to turn wave data into a difficulty multiplier for your drills.

02 Can I change how the instructions are written?

Yes, the `map_learning_style_to_drill` tool adjusts the content to match visual, kinesthetic, or analytical preferences.

03 How do I know when to move to a harder drill?

You can use the `evaluate_progression_readiness` tool to see if you have met the requirements for the next level.

04 What AI clients can I use with this MCP?

You can use any MCP-compatible client, including Claude, Cursor, Windsurf, and VS Code.

05 Do I need to host the MCP myself?

No, Vinkius hosts and manages the MCP for you, so it is ready to use as soon as you connect.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

`https://edge.vinkius.com/[TOKEN]/mcp`

CLIENT	WHERE TO CONFIGURE
 Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 Cursor	Settings → Features → MCP Servers → "+" Add New MCP Server → Type: SSE → Paste endpoint
 VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"drill-progression-design": { "url": "..." }</code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
 Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

-  Ask ChatGPT 
-  Ask Claude 
-  Ask Perplexity 
-  Ask Gemini 
-  Ask Grok 

READY TO CONNECT

Drill Progression Design is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and
start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

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Platform	Vinkius Cloud for AI Agents
Endpoint	https://edge.vinkius.com/{token}/mcp

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