MCP SERVER | NO CODE | CLOUD HOSTED

Flexibility Surf Performance MCP

Turn physiological data into better surfing maneuvers.

Flexibility Surf Performance MCP acts as a physiological assessment engine for surfers. It analyzes hip mobility, thoracic rotation, and ankle flexibility to calculate a holistic score. Your AI client uses these metrics to identify movement limitations and predict how well you can execute specific maneuvers like bottom turns or aerials.

A+ Quality Score 100/100

surfing | mobility | flexibility | physiology | athletic-performance

MAINTAINED BY VINKIUS CLOUD FOR AI AGENTS · SEPTEMBER 2026
vinkius.com/en/ai-agent-connect/flexibility-surf-performance

SCAN TO VIEW

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.

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.

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.

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	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	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.

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.

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.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken 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.

Agent Activity

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

FinOps

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

Tool Health

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

Firewall & DLP

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

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.

Flexibility Surf Performance MCP

4 tools available
Cloud-hosted on Vinkius

You can use this MCP to bridge the gap between raw physiological data and actual performance on a wave. Instead of guessing why a maneuver feels stiff, you feed your mobility metrics into your AI client to get a clear picture of your physical constraints. The engine looks specifically at hip mobility, thoracic rotation, and ankle flexibility to determine how these factors dictate your ability to drive turns or launch aerials.

By identifying specific movement limitations, you can stop guessing about your training needs. Your agent can calculate a baseline score, compare your current mobility against standardized performance tiers, and summarize how your physical state translates to performance gaps. It's a direct way to see how your body's range of motion limits your ability to execute high-velocity carves or maintain board orientation during flight.

Core Capabilities

01 — Mobility Scoring

Your agent calculates a holistic flexibility score based on hip, thoracic, and ankle data.

02 — Maneuver Prediction

The AI determines if your current range of motion supports specific moves like aerials.

03 — Tier Comparison

Your client compares your physical metrics against established performance standards.

04 — Constraint Mapping

The MCP identifies which specific joint limitations are causing performance gaps.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/en/ai-agent-connect/flexibility-surf-performance** — connect your AI agent in three steps.

01 Connect your preferred MCP-compatible client to Vinkius.

02 Provide your mobility metrics like hip, thoracic, and ankle data to your agent.

03 The MCP processes these values to calculate scores and readiness levels.

04 Your agent delivers a summary of how these physical constraints affect your surfing.

The process moves from raw data input to actionable performance insights.

Built For

This MCP is built for athletes and coaches who want to quantify the relationship between physical mobility and wave riding.

Surfers

Use it to track how mobility improvements change your ability to hit specific maneuvers.

Surf Coaches

Hand off mobility data to your agent to identify training priorities for your athletes.

Performance Coaches

Use the scoring engine to monitor physiological progress over a training cycle.

What Changes When You Connect

01	Connects physiological data directly to surfing maneuvers.
02	Identifies specific joint limitations instead of general stiffness.
03	Quantifies readiness for technical moves like aerials.
04	Provides a clear summary of how mobility affects performance.

Real-World Applications

Pre-Season Assessment

Establish a baseline flexibility score to track progress throughout the year.

Maneuver Troubleshooting

Find out if limited thoracic rotation is the reason you struggle with high-velocity carves.

Training Optimization

Use the performance impact summary to decide whether to focus on hip or ankle mobility.

Athlete Benchmarking

Compare your mobility metrics against performance tiers to see where you stand.

4 Tools Available

#	TOOL	DESCRIPTION
01	analyze_flexibility	This tool calculates your overall flexibility score and pinpoints specific movement limitations.
02	compare_mobility_tiers	Use this to measure your current mobility metrics against standardized performance tiers.
03	evaluate_maneuver_readiness	This tool determines your physical capability to perform specific surfing maneuvers.
04	get_performance_impact_summary	Get a high-level overview of how your specific mobility constraints create performance gaps in the water.

See It in Action

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

U Analyze my flexibility with hip mobility 45, thoracic rotation 30, and ankle flexibility 40.

Your flexibility score is 38. Your primary constraint is thoracic rotation, which may limit your ability to perform high-velocity carves.

U How ready am I for an aerial if my hip mobility is 50, thoracic rotation 45, and ankle flexibility 45?

Your readiness score for an aerial is 85. You have sufficient mobility to manage board orientation during flight.

U What is my performance impact summary for a flexibility score of 60 and limitations: ['limited hip mobility']?

Your performance level is Intermediate. The impact severity is Moderate. Focus on hip mobility exercises to improve bottom turn depth.

Frequently Asked Questions

01 **What metrics does this MCP use for assessment?**

The engine analyzes hip mobility, thoracic rotation, and ankle flexibility to generate scores.

02 **Can I use this with Claude or Cursor?**

Yes, you can connect this MCP to any MCP-compatible client including Claude, Cursor, and Windsurf.

03 **How does it help with specific surfing moves?**

It uses the evaluate_maneuver_readiness tool to determine if your mobility supports moves like aerials or bottom turns.

04 **Do I need to host the MCP myself?**

No, Vinkius hosts and manages the MCP for you. You just connect your client and start using the tools.

05 **What is a performance impact summary?**

It is a high-level overview that explains how your specific mobility constraints translate into gaps in your surfing performance.

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 `"flexibility-surf-performance": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → 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

Flexibility Surf Performance 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

INDEPENDENT PLATFORM DISCLAIMER

Vinkius is an independent platform and is not affiliated with, endorsed by, sponsored by, verified by, or otherwise authorized by Flexibility Surf Performance. All third-party trademarks, logos, and brand names are the property of their respective owners. Their use in this document is strictly for informational purposes to identify service compatibility and interoperability.

DOCUMENT INFORMATION

Generated	September 2026
MCP Server	Flexibility Surf Performance MCP
Server ID	`01a0a395-c07e-73e6-9cb0-0bb407f445a9`
Platform	Vinkius Cloud for AI Agents
Endpoint	`https://edge.vinkius.com/{token}/mcp`

LICENSE & USAGE

This document is generated automatically by the Vinkius PDF Engine. Content reflects the MCP server configuration at the time of generation and may change as updates are deployed. For the most current information, visit vinkius.com/en/ai-agent-connect/flexibility-surf-performance.