

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

Floors Climbed Calculator MCP

Turn stair climbing data into precise metabolic insights.

Floors Climbed Calculator MCP gives your AI client the math it needs to quantify the physical impact of stair climbing. Instead of guessing, you can get exact calorie counts, vertical distance conversions, and cardiovascular intensity levels. It turns simple floor counts into actionable fitness data through a few direct commands.

A+ Quality Score 100/100

fitness

calories

stair-climbing

metabolic

cardio



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.

Floors Climbed Calculator MCP

4 tools available

Cloud-hosted on Vinkius

If you track your workouts, you know that climbing stairs hits differently than walking on flat ground. This MCP gives your agent the specific formulas to translate floor counts into real physiological data. You can stop guessing how much work you actually did and start getting hard numbers on energy expenditure and aerobic strain.

Your AI client uses this to bridge the gap between a simple observation, like climbing ten flights of stairs, and a detailed metabolic profile. You can compare the effort of a quick stair climb to a much longer walk, or convert floor counts into total vertical meters to better understand the distance covered. It is a specialized utility for anyone who wants to treat stair climbing as a measurable metric rather than just a way to get to an office.

Core Capabilities

01 — Metabolic Calculation

Your agent calculates exact calorie expenditure based on weight and climbing speed.

03 — Intensity Assessment

Your client determines if a climb was light, moderate, or vigorous.

02 — Vertical Distance Conversion

The AI converts floor counts into meters of vertical height.

04 — Activity Comparison

The tool compares stair climbing effort to horizontal walking distances.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/floors-climbed-calculator — connect your AI agent in three steps.

- 01 Connect your MCP-compatible client to Vinkius.
- 02 Provide your climbing details like floors, weight, and speed to your agent.
- 03 The agent calls the necessary tool to run the math.
- 04 You receive precise metabolic or distance data in your chat interface.

Connect your client to Vinkius and start sending climbing data to your agent.

Built For

This is for people who want to move beyond basic step counting and understand the actual physiological cost of vertical movement.

Fitness Enthusiasts

Users who want to log precise caloric data from stair workouts into their training logs.

Health Coaches

Professionals who need to explain the intensity of vertical exercises to clients.

Data Analysts

People building fitness models who need to convert floor counts into physical distance.

What Changes When You Connect

- 01 Converts floor counts into vertical meters instantly.
- 02 Translates stair climbing effort into walking distance equivalents.
- 03 Provides specific aerobic intensity categories based on speed and step height.

04 Calculates calorie burn using weight and movement velocity.

Real-World Applications

Workout Logging

Your agent takes your raw stair climb data and turns it into a formatted calorie report.

Intensity Tracking

Determine if your stair climbing session reached a vigorous cardiovascular threshold.

Exercise Comparison

Compare how much harder a 5-minute stair climb is compared to a 20-minute walk.

Distance Validation

Verify the total vertical distance climbed during a building inspection or workout.

4 Tools Available

#	TOOL	DESCRIPTION
01	calculate_stair_climbing_metrics	This tool provides a full breakdown of energy, distance, and health impact for a single climbing session.
02	convert_floors_to_vertical_height	Use this to turn a specific number of floors into a total vertical distance measurement.
03	estimate_cardiovascular_impact	This tool determines your aerobic intensity level based on your climbing speed and step height.
04	get_walking_equivalence_comparison	This tool calculates how much horizontal walking you would need to do to match the calories burned on stairs.

See It in Action

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

U I climbed 10 floors, I weigh 75kg, each step is 0.18m high, and I climbed at 1.2 m/s. How many calories did I burn?



You burned 42.5 calories during your 10-floor climb.

U How much walking is equivalent to burning 50 calories on stairs?



Burning 50 calories on stairs is equivalent to walking approximately 2.4 kilometers at a brisk pace.

U What is the cardiovascular intensity of climbing at 1.5 m/s with 0.2m steps?



At that speed and step height, your intensity category is Vigorous.

Frequently Asked Questions

01 How do I use this MCP with Claude?

You connect your Claude desktop app to Vinkius once, and then you can immediately start asking Claude to calculate stair climbing metrics.

02 What data do I need to provide for calorie calculations?

To get an accurate calorie count, you should provide the number of floors, your weight, the height of each step, and your climbing speed.

03 Can I compare stairs to walking?

Yes, the tool can calculate how much horizontal walking is required to match the calories you burned on the stairs.

04 Does this work for any stair climber?

The tool works for any stair climbing session as long as you can provide the basic metrics like speed and step height.

05 Is there a way to see if my workout was intense enough?

Yes, you can use the cardiovascular impact tool to find your specific aerobic intensity category.

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>"floors-climbed-calculator": { "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

Floors Climbed Calculator 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	<code>https://edge.vinkius.com/{token}/mcp</code>

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