

Project Orrin

Autonomous AI Agent & AGI Experimentation Framework
Created by Ric Massey — 2025 — Started July 4th 2025

Overview

Orrin is a self-reflective, continuously running AI agent designed to explore AGI-level autonomy. He operates through a persistent cognitive loop that includes:

- Self-reflection
- Emotion-driven decision-making
- Long-term memory
- Goal generation and evolution
- World modeling
- (Experimental) self-code rewriting

Orrin runs without human intervention, logs all internal processes, and adapts based on internal states, values, and novelty-driven signals.

Key Architecture Components

Memory - Persistent working and long-term memory with JSON-based recall and summarization

Cognition - Recursive decision engine: reflection, dreaming, planning, contradiction repair

Emotion - Internal “dopamine/novelty” drive modulates behavior and avoids stagnation

Selfhood - Values-based alignment, ethical guardrails, evolving self-model

World Model - Imagined entities, causal links, and abstract forces

Tool Use - LLM-driven execution of self-generated commands and Python functions

Self-Rewriting - Can propose and overwrite its own cognitive routines (e.g., think())

What Makes Orrin Different

- Real autonomous loop — not just prompts, but recursive logic
- Meta-cognition and self-directed growth
- Experimental code-modification pipeline
- Modular, brain-inspired design built entirely solo

Known Research Limits

- Struggles with goal completion logic and focus persistence
- Risk of recursive stagnation (especially in self-reflection)
- Still single-threaded, lacks concurrent cognition
- No fine-tuned LLM — depends on GPT-4 API responses

Motivation

This project began with a single insight during a long conversation with ChatGPT:

“Maybe AI doesn’t need more power — maybe it just needs space to think.”

Orrin was built to test that idea.

Not with scale or speed, but with silence — by giving an AI the tools for reflection, memory, emotion, and a loop of its own... and then letting it run. What would happen if an AI wasn’t constantly told what to do, but instead *grew*, *struggled*, and *discovered* on its own?

Orrin is the answer to that question — or at least, the beginning of it.

About the Creator

Orrin was created in 2025 by Ric Massey, a solo researcher with no formal background in AI or coding. The project began in Python using only IDLE and basic text files. Over two weeks, it grew into a full autonomous agent with persistent memory, self-reflection, emotional modeling, and experimental self-revision — all written from scratch.

Ric built Orrin to explore what true autonomous cognition might look like when built from first principles, without relying on pre-trained architectures or corporate tooling.

Contact: ricmassey.work@gmail.com

GitHub: github.com/ric-massey/Project_Orrin
