ECM Version Lineage Document

Core Emotion Framework (CEF) — Device Evolution Overview
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Version: 1.0 (Lineage Overview)

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0. Purpose of This Document

This document provides a unified overview of the full evolution of the Emotional Cycling Machine (ECM) across all major versions. It clarifies:

- the purpose of each version
- the relationship between hardware and protocol updates
- compatibility across versions
- the canonical status of each release
- the intended audience and use-cases
- the conceptual progression from manual hardware to autonomous systems

This lineage document serves as the authoritative reference for practitioners, researchers, and developers working within the Core Emotion Framework (CEF).

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1. ECM Lineage Summary Table

Version	Release Type	Core Contribution	Status
v1.0	Hardware Baseline	Original single-wheel device; mechanical motions	Canonical, foundational
v1.1	Protocol Update	First formal ECM protocol aligned with Cycling v1.1	Superseded by v1.2
v1.2	Modernized Protocol	Capacity, load, stability tiers; modern cycling hierarchy	Canonical protocol for v1.x hardware
v2.0	Next-Generation Hardware	Multi-wheel architecture, resistance system, choreography ring	Canonical advanced hardware
v3.0	Autonomous Architecture	Self-calibrating, adaptive, intelligent ECM	Canonical autonomous hardware

2. Version-by-Version Overview

2.1 ECM v1.0 — Original Hardware Specification

Type: Hardware
Purpose: Establish the physical form of the ECM.
Key Features:

- single manually operated wheel
- CW / CCW / Swing motions
- non-electronic, minimalist design
- center-level activation only

Role in Lineage:
The mechanical foundation for all future ECM development.

2.2 ECM v1.1 — First Formal Protocol

Type: Protocol
Purpose: Align ECM usage with the newly formalized Cycling v1.1 hierarchy.
Key Features:

- Primary (center-level), Secondary (operator-level), Tertiary (cross-center) modes
- structured calibration and safety guidelines
- standardized session formats

Role in Lineage:
Introduced the first complete operational protocol for ECM v1.x hardware.

2.3 ECM v1.2 — Modernized Protocol (Canonical Edition)

Type: Protocol
Purpose: Modernize ECM practice using PM9–PM15 principles.
Key Features:

- capacity-aware calibration
- load-based adjustments
- stability-tier progression
- refined readiness and overload indicators
- clarified three-layer cycling architecture

Role in Lineage:
The authoritative protocol for all ECM v1.x hardware.
Supersedes ECM v1.1.

2.4 ECM v2.0 — Next-Generation Emotional Cycling Machine

Type: Hardware
Purpose: Expand ECM into a multi-module, research-grade device.
Key Features:

- Primary Wheel (height-adjustable)
- Dual Micro-Wheels (operator-level mechanics)
- Cross-Center Choreography Ring
- resistance-based calibration system
- modular attachments (Stability Bar, Operator Dial, Timer)
- optional sensory feedback channels

Role in Lineage:
The advanced mechanical ECM platform.
Compatible with ECM v1.2 protocol and new v2-specific calibration methods.

2.5 ECM v3.0 — Autonomous Emotional Cycling Machine

Type: Hardware
Purpose: Introduce autonomy, adaptation, and system-level intelligence.
Key Features:

- autonomous resistance modulation
- self-calibrating center height
- operator-recognition sensors
- dynamic choreography sequencing
- real-time load mapping
- adaptive safety governance
- Quinary Mode (Autonomous Cycling)

Role in Lineage:
The first ECM that behaves as a self-regulating emotional system.
Represents the highest tier of ECM evolution.

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3. Hardware–Protocol Compatibility Map

Hardware Version	Compatible Protocols	Notes
ECM v1.0	v1.1, v1.2	v1.2 recommended
ECM v1.x	v1.1, v1.2	v1.2 is canonical
ECM v2.0	v1.2 + v2-specific calibration	Fully backward compatible
ECM v3.0	v1.2 + v2-specific + v3-specific	Autonomous features require v3 protocols

4. Intended Use-Cases by Version

ECM v1.0

Foundational training, basic research, historical reference.

ECM v1.2

Standardized emotional training, practitioner instruction, research replication.

ECM v2.0

Advanced emotional calibration, operator-level precision, cross-center choreography, research laboratories.

ECM v3.0

Autonomous emotional modeling, system-level governance, long-horizon stability research, adaptive training environments.

5. Deprecation and Canonical Status

Version	Status	Notes
v1.0	Canonical baseline	Hardware origin point
v1.1	Deprecated	Superseded by v1.2
v1.2	Canonical protocol	Required for all ECM v1.x hardware
v2.0	Canonical advanced hardware	Active and supported
v3.0	Canonical autonomous hardware	Highest-tier device

6. Citation Guidance

When citing ECM versions in research:

- **ECM v1.0** — cite as hardware baseline
- **ECM v1.2** — cite as canonical protocol
- **ECM v2.0** — cite for advanced mechanical architecture
- **ECM v3.0** — cite for autonomous emotional systems

Example citation format:

Bulgaria, J. (2026). ECM v3.0 — Autonomous Emotional Cycling Machine. Core Emotion Framework Technical Report. OptimizeYourCapabilities.com.

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7. Conclusion

The ECM lineage represents a structured, intentional evolution from:

- **manual hardware** (v1.0)
  to
- **formalized protocol** (v1.1, v1.2)
  to
- **advanced mechanical systems** (v2.0)
  to
- **autonomous emotional technology** (v3.0)

This document provides the unified reference needed to understand, teach, research, and extend the ECM ecosystem across all versions.