

Layer II - Interface & Practice Translation Framework

A belief-minimised interface layer for implementing the mechanical self-regulation programme defined in Layer I.

Core principle: Layer II is not the mechanism. It is the human-system interface that makes the mechanism easier to execute, pace, remember, repeat and eventually internalise.

1. Purpose

Layer II sits between the mechanical training system defined in Layer I and any optional philosophical, cultural or symbolic interpretation. Its purpose is to answer: How should the underlying physiological and attentional exercises be presented so that they are easy to perform accurately, consistently and enjoyably?

- Sound, counting, tones and spoken instructions
- Music and visual pacing
- Tactile cues and movement patterns
- Environmental design and imagery
- Neutral phrases and ritualised sequencing
- Habit cues and minimal logging

These are interfaces, not mechanisms. The breathing rate is the mechanism; the tone marking the inhale is the interface. The attentional shift is the mechanism; the instruction to move awareness to the feet is the interface.

2. Governing Rule

Every Layer II element must justify itself by serving at least one of five functions:

1. Increase execution accuracy.
2. Reduce cognitive effort.
3. Increase adherence.
4. Improve state transition.
5. Improve skill transfer.

If an interface element accomplishes none of these, it should be removed.

3. Interface Independence

Layer II must remain replaceable. A practitioner should eventually be able to perform Layer I without headphones, a screen, spoken guidance, music, prescribed wording, a particular room, or a particular cultural framework. The interface is a training scaffold, not a dependency.

Default progression: External guidance -> reduced guidance -> internal control -> transfer.

4. Respiratory Pacing

The default Layer I starting point is approximately 0.1 Hz: about six complete respiratory cycles per minute, commonly implemented as five seconds inhalation and five seconds exhalation. Layer II supplies a timing interface without changing that physiological target.

Tonal pacing

- Use two easily distinguishable, non-startling signals for inhalation and exhalation transitions.
- Prefer soft tones, pitch sweeps, or subtle stereo placement over harsh metronome clicks.
- The cue should mark the transition rather than forcing every instant of the breath.

Visual pacing

- Expanding/contracting circle, rising/falling line, vertical bar, or moving point on a waveform.
- Useful for acquisition because timing is unambiguous.
- Fade later because screen dependence competes with environmental awareness and portability.

Counting

A simple five-count inhale and five-count exhale is portable and precise, but occupies working memory. It is best treated as an acquisition tool rather than the mature default.

5. Music as a Timing Interface

Music can provide a stable temporal grid without sounding like a clinical metronome. At 60 BPM, five beats correspond to a five-second respiratory phase. Other tempi can work so long as the phase count remains simple.

Tempo	Beats per 5-second phase
48 BPM	4
60 BPM	5
72 BPM	6
84 BPM	7
96 BPM	8
108 BPM	9

Tempo	Beats per 5-second phase
120 BPM	10

Selection should favour predictable pulse, low rhythmic instability, moderate dynamic range, limited lyrical distraction and sufficient repetition to permit entrainment. Remove music that repeatedly causes anticipatory listening, emotional over-activation, breathing acceleration or loss of timing precision.

6. Vocalisation and Semantic Cues

Vocalisation

Humming, sustained vowels, neutral syllables, spoken counting or short repeated phrases can regularise expiration, make airflow perceptible, provide auditory feedback and reduce timing uncertainty. Semantic meaning is optional.

Semantic phrases

Words are retained only when they reliably produce a useful operation. “Slow and easy” may reduce respiratory force; “release the shoulders” may trigger muscular relaxation; “feel the feet” may redirect attention toward contact and balance. The criterion is functional, not spiritual.

7. Attention Guidance

Layer I trains placement, maintenance, translation and expansion of attention. Layer II provides concise, concrete cues for those operations.

Operation	Example interface cue
Placement	Attention to the sensation of airflow at the nose.
Maintenance	Remain with that sensation until the next cue.
Translation	Move attention from the nose to the abdomen.
Expansion	Include the whole body and surrounding sound simultaneously.

Preferred body targets are sensory regions - nose, throat, chest, abdomen, hands, feet, jaw, shoulders, back and pelvis - not predefined “energy centres”. Salience should be discovered empirically.

8. Movement Translation

Traditional movement forms can be decomposed into direction, speed, load, range and respiratory relationship. Fixed cultural sequences are optional; the motor principles are not.

- Direction: left, right, forward, backward, rotation.
- Speed: slow, moderate, continuous.
- Load: unloaded, lightly loaded, bodyweight.

- Range: comfortable, controlled, non-forced.
- Respiratory relationship: independent, inhale-linked, exhale-linked, or one movement per respiratory cycle.

Movement as a pacing interface

An arm rise during inhalation and lowering during exhalation can turn the body itself into the respiratory pacer. At 0.1 Hz this becomes approximately five seconds rising and five seconds lowering. External rhythm should fade as coordination improves.

9. Tension Awareness

Early training should create clear sensory contrast. Contract a region moderately for several seconds, release it, then observe the difference. Over time the explicit contraction disappears and the instruction becomes simply: detect unnecessary effort and release what is not required.

- Jaw and tongue
- Eyes and neck
- Shoulders and hands
- Abdomen and gluteal muscles
- Thighs and feet

Complete muscular relaxation is not the goal. Some activation is necessary for posture and movement; the target is unnecessary effort.

10. State-Transition Interfaces

A useful programme trains transitions rather than merely calmness. Layer II may alter posture, vision, sound and stimulation to make transitions explicit.

State	Interface characteristics
Quiet	Reduced stimulation, stillness, slow breathing, low task demand.
Alert	Eyes open, upright posture, broad visual field, spontaneous breathing.
Active	Standing/walking, larger movement amplitude, faster external rhythm.
Recovery	Gradually decreasing movement, natural respiratory slowing, quiet observation.

The intended sequence is quiet -> alert -> active -> recovery, so the practice does not become synonymous with sedation.

11. Visual Field as a Control Surface

For quiet concentration use a stationary gaze, reduced scanning and a simple visual field. For reactivation broaden peripheral vision, scan the environment, move the head and eyes, stand, and orient spatially. This is a simple non-verbal transition mechanism.

12. Environmental Design

- Comfortable temperature and ventilation
- Low interruption probability
- Adequate movement space
- Stable chair if sitting
- Non-restrictive clothing
- Notifications disabled during formal practice

The environment need not be silent. Early training may reduce distraction, but later practice should deliberately include ordinary environmental complexity so the skill transfers outside a controlled room.

Lighting and scent

Lighting may act as a subtle behavioural cue: softer during regulation and ordinary/brighter during return. Scent may serve as a pleasant contextual habit cue but has no necessary physiological role and should remain dispensable.

13. Habit Architecture

The protocol should have a low activation cost. Attach it to a stable daily event, use a predictable location initially, keep equipment immediately available, and use a predefined minimum session rather than skipping when the full session is inconvenient.

14. Minimal Logging

Logging is for pattern detection, not autobiography. A compact log is sufficient:

Before	After	Completion
Activation 0-10	Activation 0-10	Complete / partial / skipped
Stress 0-10	Stress 0-10	Optional one-sentence note
Energy 0-10	Energy 0-10	

Avoid turning HRV, heart rate or subjective calmness into a daily competitive target. Evaluate trends over weeks, not single sessions.

15. Imagery and Metaphor

Imagery is permitted when it improves motor or attentional control. “Shoulders becoming heavy” can cue release; “abdomen expanding three-dimensionally” can cue respiratory awareness; “top of the head moving upward” can cue postural elongation.

Spatial-flow imagery may be used as a sequential attentional scan. A “wave” travelling from feet to head can be useful as an interface metaphor without asserting that a literal substance is moving.

Rule: Metaphors such as “soften”, “open”, “sink”, “expand”, “ground” and “flow” are acceptable when they act as compressed motor or attentional instructions and remain translatable into concrete operations.

16. Non-Semantic vs Semantic Interfaces

Non-semantic	Semantic
Tones	Words
Lights / pulses	Phrases
Visual motion	Imagery
Rhythm / vibration	Stories or mantras
Metronomic cues	Instructions

Non-semantic cues generally impose less cognitive load. Semantic cues can carry more complex instructions. Mature practice should use the minimum semantic content required for accurate execution.

17. Default Layer II Stack

Phase	Interface
Arrival - 2 min	No music, no paced breathing; one neutral instruction to observe current state.
Respiratory - 10 min	Soft auditory pacer at 5 s inhale / 5 s exhale; no counting unless needed; no lyrics.
Attention - 5 min	Auditory cue every 30-60 s to shift between breath, abdomen, hands, feet, whole body and environment.

Phase	Interface
Movement - 10 min	Minimal verbal guidance; optional stable low-complexity music; breath coupling only where intentional.
Integration - 3-5 min	Remove pacing; spontaneous breathing; broad awareness.
Return - 1-2 min	Eyes open; stand; orient visually; ordinary movement; no slow-breath instruction.

18. Scaffold-Fading Schedule

Stage	Interface load
Weeks 1-2	Full pacing, frequent cues, structured movement sequence.
Weeks 3-4	Fewer instructions, respiratory pacer retained, fewer attentional reminders.
Weeks 5-6	Intermittent respiratory pacing, self-directed movement, occasional correction cues.
Weeks 7-8	Mostly self-directed; external interfaces primarily for calibration.
Long-term	Fully executable without external assistance; aids remain optional.

19. Interface Testing and Retention

Treat each interface as an experiment. Test it across multiple sessions and observe timing accuracy, perceived effort, distraction, enjoyment, completion rate, post-session state and ability to reproduce the skill without assistance.

Retain when it produces

- Greater accuracy
- Lower cognitive burden
- Greater consistency
- Better subjective experience
- Better transfer to unguided practice

Remove or redesign when it

- Distracts or creates anxiety
- Makes breathing feel forced
- Encourages sensation-chasing
- Creates dependency or excessive equipment burden
- Produces performance pressure or unnecessary emotional activation
- Becomes ritualistically compulsory

20. Personalisation and Multi-Sensory Learning

Auditory, visual, kinesthetic and cognitive interfaces are all legitimate. Early training can combine channels - for example, a circle expands, a tone rises, arms rise and inhalation occurs simultaneously. Redundancy may accelerate acquisition, but channels should later be removed individually until timing can be reproduced internally.

21. Avoiding Ritual Capture

Repeated practice naturally creates ritual, which can reduce decision-making and improve adherence. The problem is confusing the ritual with the physiological mechanism. Deliberately vary location, soundtrack, posture, cue type or sequence occasionally. If the skill survives, transfer has occurred.

22. Expectation Effects

Expectation is not automatically undesirable. Attractive surroundings, preferred music, imagery or ceremony may improve adherence and subjective well-being. The disciplined distinction is between useful expectancy and false causal attribution: “this setting helps me practise” is different from “this object possesses a special physiological power”.

23. Translation Examples

Traditional surface instruction	Mechanical target	Layer II translation
Follow the breath	Respiratory attention	Track airflow and abdominal movement.
Move qi downward	Spatial attentional shift	Move attention gradually towards abdomen and feet.
Ground yourself	Postural/sensory stabilisation	Feel foot contact and release unnecessary upper-body tension.
Open the heart	Chest posture + affective cue	Release shoulders and allow comfortable chest expansion.

Traditional surface instruction	Mechanical target	Layer II translation
Chant the mantra	Respiratory/rhythmic entrainment	Repeat a phrase or sound at a fixed respiratory cadence.
Circulate energy	Sequential body attention	Perform a continuous body scan.
Empty the mind	Reduced cognitive engagement	Notice thoughts without following them.
Enter stillness	Reduced motor output + stable attention	Stop unnecessary movement while maintaining alert awareness.
Awaken energy	Increase activation	Use movement, upright posture and ordinary respiratory activation.
Return energy to the centre	Down-regulation + localisation	Slow movement and place attention on abdominal respiration.

24. Interface Hierarchy

6. Simple mechanical cue.
7. Pleasant sensory cue.
8. Neutral verbal instruction.
9. Metaphorical instruction.
10. Cultural or symbolic narrative.

This ordering minimises interpretive baggage while allowing richer interfaces where they demonstrably improve execution or adherence.

25. Final Architecture

Layer	Question	Examples
Layer I - Mechanism	What does the body/attention actually do?	0.1 Hz breathing; attention placement; controlled movement; state transitions.
Layer II - Interface	How is the operation made easy to perform?	Tone; music; visual pacer; movement cue; spoken instruction.

Layer	Question	Examples
Layer III - Interpretation	What meaning or philosophy is attached?	Qi; prana; contemplative spirituality; secular philosophy; personal symbolism.

Ordering: Mechanism -> Interface -> Meaning, rather than Meaning -> presumed mechanism.

26. Core Formula

Layer II core: Cue -> Execute -> Reduce Cue -> Internalise -> Generalise

The best interface is not the one that produces the most impressive training session. It is the one that eventually makes itself unnecessary.