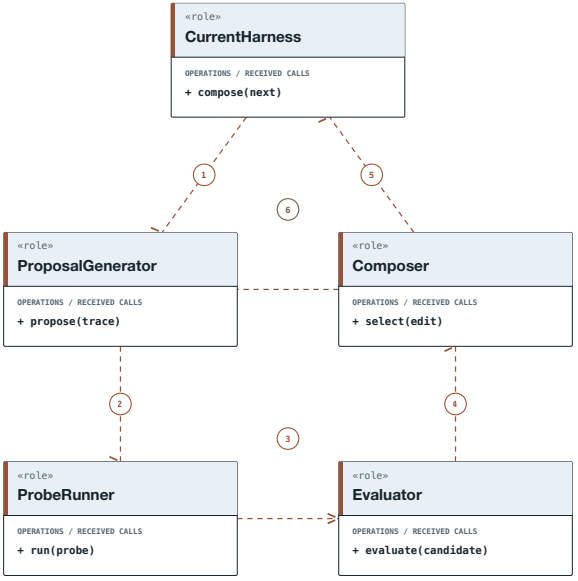
E02 Propose-Probe-Compose

Evolution / UML CLASS VIEW / ANALYTICAL MODEL

Improve a harness using contrastive probes.

UML CLASS VIEW

dashed arrow: call dependency · brown: return/failure · analytical, not an observed trace



POINTCUT / PATTERN INTERFACE

CONTEXT	A base harness is available for improvement.
TRIGGER	A proposal changes a bounded harness component and probes are executed.
STRUCTURE	Proposal scope, task probes, evaluator, and composition operation.
EFFECT	Only evidence-supported edits are composed into the next harness.

CONTRACT / REQUIRED BEHAVIOR

REQUIRES	Harness components are addressable and probes use permitted data.
ENSURES	Candidate edits carry probe results and composition provenance.
INVARIANT	Evaluation data cannot be silently repurposed as final test data.
VIOLATION	Failed probes, invalid edits, and conflicting changes remain uncomposed.

RELATIONSHIPS / ANALYTICAL CALLS

number · caller → callee · message

1 CurrentHarness → ProposalGenerator propose(trace)
2 ProposalGenerator → ProbeRunner run(probe)
3 ProbeRunner → Evaluator evaluate(candidate)
4 Evaluator → Composer select(edit)
5 Composer → CurrentHarness compose(next)
6 Composer ↩ ProposalGenerator rollback(failure)

VARIATION / TEST / NEGATIVE CONTROL

VARIATION	Contrastive probes, recursive improvement, and component-level editing.
TEST_OBLIGATION	Test accepted edit, rejected edit, leakage, and composition rollback.
NEGATIVE_CONTROL	A one-shot prompt rewrite without probes is not E02.