

## Make engineering judgment visible

Use this with capstone teams before a major design commitment.

### Decision statement

What specific commitment are we making?

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### Alternatives

What realistic options did we compare?

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### Criteria and constraints

What matters, who said it matters, and how important is it?

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### Evidence

What data, tests, standards, literature, observations, or calculations support the choice?

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### Tradeoffs

What does the selected option improve, and what does it make worse?

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### Assumptions and uncertainty

What might be false, unknown, or still untested?

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### Stakeholder alignment

Whose needs or constraints shaped the decision?

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### Feasibility

Can we build, test, afford, maintain, and integrate this option?

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## Decision rationale

We recommend [selected option] because [evidence], given [criteria/constraints], while recognizing [tradeoffs/uncertainty]. Our next test is [test or evidence-gathering step].

## Next-test logic

Test: \_\_\_\_\_

Data to collect: \_\_\_\_\_

Decision threshold: \_\_\_\_\_

What would cause us to revise the decision: \_\_\_\_\_

## Fast rubric

- Evidence use
- Assumptions and uncertainty
- Feasibility
- AI/tool disclosure
- Tradeoff analysis
- Stakeholder alignment
- Next-test logic

## AI/tool disclosure

Tool used: \_\_\_\_\_ Task: \_\_\_\_\_ Human verification: \_\_\_\_\_