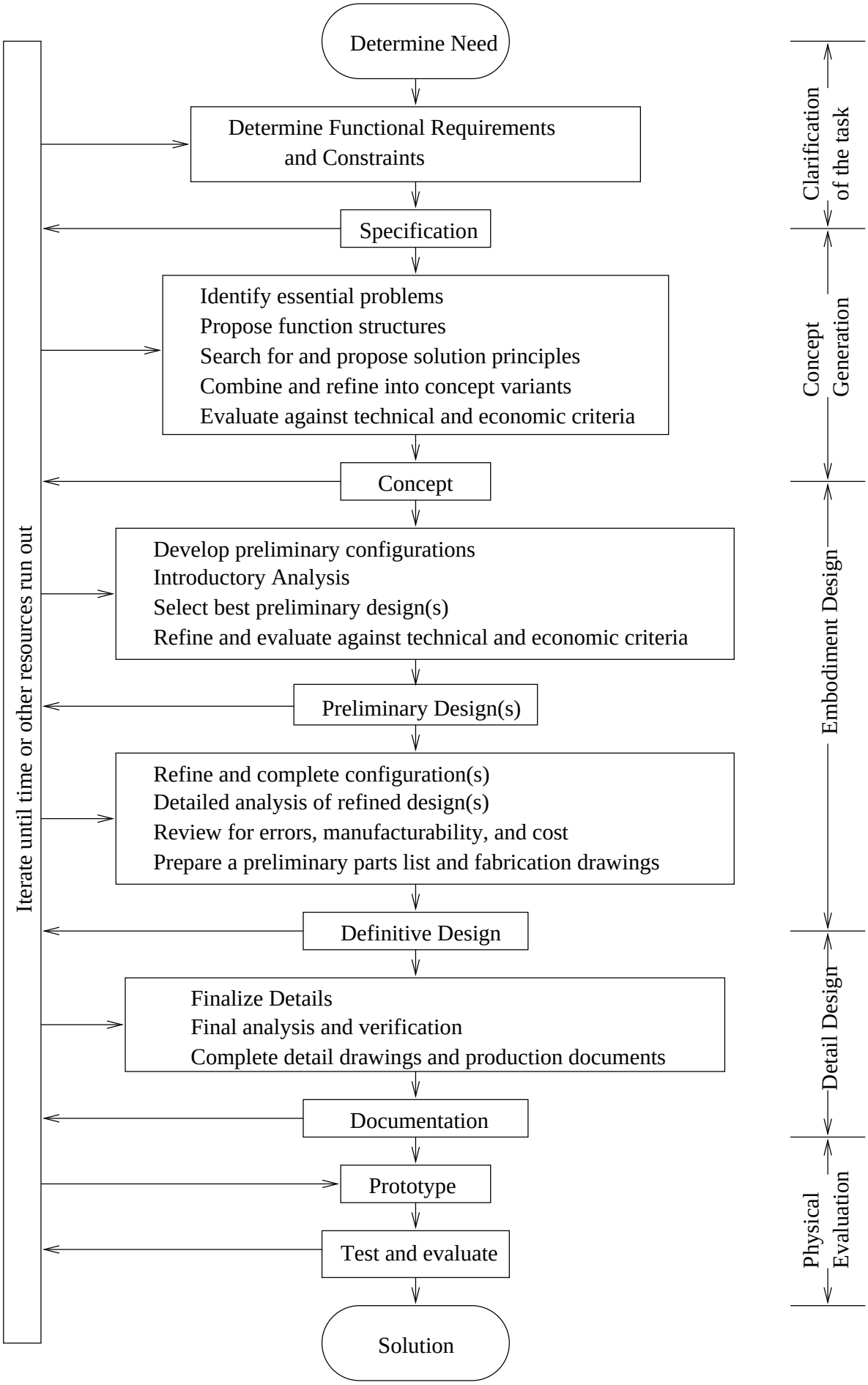
Determine Need
Determine Functional Requirements and Constraints
Specification
Identify essential problems
Propose function structures
Search for and propose solution principles
Combine and refine into concept variants
Evaluate against technical and economic criteria
Concept
Develop preliminary configurations
Introductory Analysis
Select best preliminary design(s)
Refine and evaluate against technical and economic criteria
Preliminary Design(s)
Refine and complete configuration(s)
Detailed analysis of refined design(s)
Review for errors, manufacturability, and cost
Prepare a preliminary parts list and fabrication drawings
Definitive Design
Finalize Details
Final analysis and verification
Complete detail drawings and production documents
Documentation
Prototype
Test and evaluate
Solution
Iterate until time or other resources run out
Clarification of the task
Concept Generation
Embodiment Design
Detail Design
Physical Evaluation