



D-Lab

Spring 2005

The Design Process

- Problem Definition
- Design Specifications
- Idea Generation
- Concept Evaluation
- Research, Experimentation & Analysis
- Detail Design
- Fabrication
- Testing

The Design Process

- Information Gathering
- Problem Definition
- Design Specifications
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- **Concept Evaluation**
- Research, Experimentation & Analysis
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- Testing & Evaluation



You are here

Concept Evaluation

- Create a list of evaluation criteria
- Weigh the criteria
- Group similar ideas together
- Choose a datum
- Rate each option for each of the criteria
- Tabulate the results
- Verify the results
- Verify the weighting of the evaluation criteria

Sample Pugh Chart

Criteria	Datum: Battery	Option 1: Solar	Option 2: Phase Change	Option 3: Water Bath
cost				
reliability				
accuracy (x2)				
maintenance				
ease of use				
safety				
TOTAL				

Sample Pugh Chart

Criteria	Datum: Battery	Option 1: Solar	Option 2: Phase Change	Option 3: Water Bath
cost	0			
reliability	0			
accuracy (x2)	0			
maintenance	0			
ease of use	0			
safety	0			
TOTAL	0			

Sample Pugh Chart

Criteria	Datum: Battery	Option 1: Solar	Option 2: Phase Change	Option 3: Water Bath
cost	0	+		
reliability	0	-		
accuracy (x2)	0	-		
maintenance	0	0		
ease of use	0	-		
safety	0	0		
TOTAL	0	-3		

Sample Pugh Chart

Criteria	Datum: Battery	Option 1: Solar	Option 2: Phase Change	Option 3: Water Bath
cost	0	+	+	+
reliability	0	-	+	0
accuracy (x2)	0	-	0	-
maintenance	0	0	+	+
ease of use	0	-	-	-
safety	0	0	0	0
TOTAL	0	-3	+2	-1