Prototype

Resource: Prototyping: A Practitioner's Guide by Todd Zaki Warfel, Rosenfeld Media

Phases

Plan
- Verify requirements
  - Business/marketing
    - Regulatory/policy
    - Branding
    - Potential
  - Functional
    - Fetch and read mail
    - tabulate
    - game points
    - others
  - Technical
    - Software Architecture
    - platform
    - development tool
    - optimal performance
  - Usability
    - ease of use
    - Learnability
    - Pragmatics
    - Satsfactory Leavel
    - Cognitive and ergonomic
- Define user or user group
  - User Research
  - Field Engineers, Sales Force
  - User Group Forums
  - develop task flows and scenarios

Prepare
- Determine Characteristics
  - Audience
  - Stage
  - Speed
  - Longevity
  - Expression
  - Fidelity
  - Style
  - Medium
- Choose a method
  - Card Sorting
  - Wireframe
  - Storyboarding
  - Paper
  - Digital
  - Video
  - Wizard of Oz
  - Miniature
  - 3D Modeling
- Types
  - Shared Communication
  - Working through a design
  - Selling your idea internally
  - Usability Testing
  - Gauging Technical Feasibility & Value
- Choose a tool

Design
- Select Design Criteria
- Create the design
- Build the prototype

Results
- Define and communicate
- Validate with experts and users
- Transfer effectivley results to next steps
  - Definition of new product
  - Another prototype
  - Further development of product

Theory

Value
- Generative
  - Creates ideas

Show & Tell
- Allows the experience of design
- Opens Communication, dialogue

Documentation
- Written — tell
- Wireframes — Blueprints
- Prototype — representative model

Reduces Misinterpretation
- Documentation
  - few want ot read documentation
  - seldom allos for big picture
  - too much room for interpretation
- Prototype
  - Experience it
  - Encourages play
  - Increase likelihood they'll understand it

Real World Value
- Reduces risk
- Feedback Loop

Use of simplified and incomplete model of design
- Explore ideas
- elaborate requirements
- refine specifications
- test functionality

Guiding Principles
- Understand your audience and intent
- 70% — Plan a little- prototype the rest
- Highlight what you need — Set Expectations
- You can sketch
- Don't mak it elaborate
- Can't make it, Fake it.
- Prototype what you need!
- Reduce Risk - Early and often

Process
- A Process is
  - not cookie cutter
  - a means to an end
  - flexible
- Design is a process

Saves Time, Effort, Money

Reduces Waste
- Traditional requirements driven
  - Written by wrong person
  - Significant time and effort used
  - Final Documentation
    - Seldom happens
    - Things change
  - Misinterpretation
  - Nonessential features
  - Mistakes caught to late
- Include Prototyping
  - Decisions by right people
  - Survivial of strongest solution
  - Adaptive
  - Reduce misinterpretation
  - Focus
  - Catch mistakes early
  - Reduce risk

Elements

Sketching
- Can be non-linear
- Storyboards Linear

Evaluation
- Presentation — 3 min.
- Critique — 2 min.
- Goal to find best ideas

Modeling
- Prototype
- Repeat Evaluatuion stage
- incr time limit

Testing
- With Client
  - Sketch revisions
  - Leave behind
- With End User
  - Useability Test
    - 8-12 participants
    - 5-6 scenarios
  - Audio-video capture
  - Anaylsis
  - Reporting
- Mistakes
  - Usability Testing is a process, not an event
  - Poor Planning
  - Not recruiting the right participants
  - Poorly formed research questions
  - Poor Test Moderation
  - Wrong method to communicate
    - Findings
    - Recommendations
  - Preparation
- Preperation
  - What you want & don't want
    - Key characteristics
    - Behaviors
  - consent forms
- Test Scenarios
- Record
  - Observations
  - Feedback
  - Track
    - Observation
    - Time Stamp
    - Tags
- Analyze and Determine next steps

PT001: Figure 2.1

Diagram of the iterative design and critique process.
Warfel, Todd Zaki. 2009. Prototyping: A Practitioner's Guide. New York: Rosenfeld Media.
http://www.rosenfeldmedia.com/books/prototyping/