3-in-1 Sonic Drill
Project Guidelines

Use provided cordless drill components as basis of concept development

• Motor
• Drive mechanism
• Trigger switch
• Speed and Clutch mechanism
• Battery

Design Goals

• Create a versatile, long term use drill
• Emphasis on weight balance
• Include Impact Wrench capabilities
• Minimize extraneous movements
William, Career Construction Worker

- Constantly requires power tool
- Aged 20-45, Male
- 9-5 worker
- Tends to use a single tool for long periods of time
- Takes pride in his tools and work
- Prefers long lasting, quality products
Benchmarking and Trends
Initial Concepts
Internals and Battery Study
Ideation
Ideation
3D Sketches
Refined Concept
Finalized Concept
Finalized Concept