Teach 04: Criteria Identification

GROUP 2

Problem 1: CB Radio

Criteria

Variable	Criteria
Efficiency	• Easy to Use • Components must be easy to locate, even at night • The radio should switch between receiving and broadcast with a simple interaction from the user. • The Radio should turn on and be ready to use as quickly as possible
Learnability	• Easy to understand interface • Audio and transmission adjustment controls should be easy to learn - What they do, and which affects what • Easy to understand user manual for anything that needs clarification
Familiarity	• Common control interface between different radio types/brands • Hand-held microphone should behave as expected • The radio should maintain the same functions as previous models
Simplicity	• Minimal number of switches and dials • No "extra features" • It must be easy to initiate a broadcast without looking at the Radio • It must be easy to scan for other local radios
Mapping	• Clear labels on **all** buttons • No cryptic symbols • No cryptic acronyms • Spell it out when possible • The radio volume control should map to standard clockwise-increase, counter-clockwise- decrease.
Motivation	• Most useful features • Lowest possible price • Super simple to use, the radio should feel like an extension to the truck • Brand familiarity to create a desire to stay on the same brand of radio

Trust	• Trust is a must
	• IT must work all the time
	• Components should have a high mean time to failure
	• The radio's controls should always behave the same way
	• The scan control should reliably return

Visibility	• Relatively small, but still easy to locate
	• Design must fit in well with a modern Semi Truck
	• The controls should be easily identifiable at a glance
	• Easy to read/see at day and night

Problem 2: Cordless Drill

Criteria

Variable	Criteria	Priority
Efficiency	The typical homeowner isn't going to have multiple batteries. The drill battery must be able to finish the task without recharging.	Priority 2
Learnability	This is a cordless drill, there should be no learning involved for most homeowners.	Priority 1
Familiarity	As with learnability, the average homeowner should be very familiar with common functions.	Priority 1
Simplicity	The average homeowner isn't going to use the drill if it's overly complicated. It should only have 2-3 buttons on it.	Priority 1
Mapping	The buttons and switches must be clearly labeled. The look of the button should also indicate what it will do.	Priority 1
Motivation	There are a ton of drills on the market. The homeowner should be drawn to this drill because of its simplicity, efficiency, and cost.	Priority 2
Trust	Home owner grade tools aren't intended to last forever. However, the user should be able to use it long enough to gain brand loyalty.	Priority 3
Visibility	A cordless drill doesn't need to be pretty, but buttons and controls should be very visible.	Priority 3

Rubric

	Exceptional 2	Good 1	Acceptable 0	Flawed -1	Horrible -2
Efficiency 10%	Battery lasts all day	Battery lasts most of the day	Battery lasts half of the day	Battery lasts a couple of hours	Battery lasts a couple of uses
Learnability 25%	No learning required	Only rare things require a manual	A quick read of the manual is required	A thorough read of the manual is required	The manual doesn't explain how to use all features

Familiarity 20%	Pick up and use without thought	Use after looking at the descriptions and/or symbols on the device itself	Have to read the manual to figure out some of the functions	Have to read the manual to figure out most of the functions	Can't figure out how to use it
Simplicity 25%	Does the job without thought	Does the job with minimal fuss	Requires a quick read of the manual	Have to memorize steps, but then it works	Impossible to use
Mapping 20%	Easy to understand, everything is labeled	Everything is labeled, some things require additional reading	Everything is labeled, but requires understanding	Not everything is labeled, manual required to figure out some functions	Labeled wrong

Problem 3: Topical Guide Feature

Criteria

Variable	Criteria	Priority
Efficiency	**MUST** point the user to the right information, the first time. The app should also run quickly. Little to no delays between clicking a link and it pulling up.	Priority 1
Learnability	Cannot be complicated. Should include instructions for the user.	Priority 1
Familiarity	Should be as like a google search as possible.	Priority 3
Simplicity	**MUST** be easy to use.	Priority 1
Mapping	If there are extra features, they should be clearly understood.	Priority 2
Motivation	It should be easier to use the topical guide then search manually.	Priority 2
Trust	The first time it doesn't work right, the user will find information on their own.	Priority 1
Visibility	If it's not visible, it won't be used.	Priority 1

Rubric

	Exceptional 2	Good 1	Acceptable 0	Flawed -1	Horrible -2
Efficiency 15%	Right information on	Right information requiring	Right information when spelled	Too much information, correct	Wrong information

	least amount of input	additional input	out exactly right	information hidden in the chaos	
Learnability 20%	No learning required AND easy to use	No learning required	Only rare things require additional instruction	Hard to use	Impossible to use without training
Trust 20%	Right information on the first try every time	Right information when input is good	Right information after a second try	Right information after several tries	Wrong information
Simplicity 25%	Every user knows how to use it	Most users can use it with ease	Only some users know about the feature and how to use it	Feature is hidden and training is recommended	Impossible to use without training
Simplicity 20%	Application is very simple to use	Application is relatively simple but has a slight learning curve	Application is simple after some reading of the instruction manual	Application isn't simple and requires a lot of	