Teach 04:

Criteria Identification

Group 2

# Problem 1: CB Radio

## Criteria

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| --- | --- |
| **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

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| **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

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| --- | --- | --- |
| **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 least amount of input | Right information requiring additional input | Right information when spelled out exactly right | Too much information, correct information hidden in the chaos | Wrong information |
| 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 |  |