Backpack Bicycle

Sketch Model Review

10/6/11
Problem

• Commuters
  – Carrying your bike on subways and buses
  – Can’t find a place to park your bike

• Campers
  – Tired after hiking
  – Biking on tough terrain

Green B
Current Products

- The Bergmonch
  - $1980
  - 22 lbs
  - ~12 liters of storage (school backpack avg 35 liters)
Current Products

- Strida LT Folding Bike
  - $600
  - 22 lbs
Current Products

- Dahon Boardwalk Folding Bike
  - $270
  - 30 lbs
Solution

• The backpack bicycle
  – Can fold up quickly and easily into a backpack
  – Backpack still works as a regular pack
    • More storage space (~25 L)
  – No heavier than a regular loaded pack
Current Market

- **Commuters**
  - ~6 million total commuters on transit
  - Over 10 million passenger trips
  - 5% of all commuting is transit

- **Outdoors/Campers**
  - Hikers 37.7 million in 2010 (4.7M 30+ days/yr)
  - Overnight Campers 44.7 million in 2010 (7.4M 20+ days/yr)
  - Backpacking 11.1 million in 2010 (1.5M 20+ days/yr)
Sketch Model
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Sketch Model

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Sketch Model

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Results

• Possible to fit in comfortable form factor
• Storage capacity improved two fold
What’s Next

- Refine folding geometry
- Verify load-bearing members
- Work on reducing weight as much as possible
- Look for additional storage volume
- Improve and validate ergonomics
- Reduce cost