Outline

1. Introduction
2. Ski System
3. Tread System
4. Other Issues
5. Questions
The Snobike Team

Team Members (in order): Matthew Milan, Matthew Brouwer, Jen Meneely, Justin Karsten

Introduction       Ski System       Tread System       Issues
Project Review

- Bikes are commonly used as transportation
- Not reliable in the snow
- Want to create a kit that will allow bikes to be used during the winter months
Design Norms

- Transparency
  - Easy to assemble kit design
- Trust
  - Safe and reliable form of transportation
- Stewardship
  - Reduce dependency on fossil fuels
Achievements

- Ski Design
Ski Issues

Introduction  Ski System  Tread System  Issues
Ski Issues

- Initial design relatively functional
  - Turning issues
  - Determine best design
    - Single ski versus double ski
    - Flat versus rounded bottom skis
Achievements

- Tread Design
Tread Prototype Testing

Introduction  Ski System  Tread System  Issues
Tread Issues

- Initial design was functional but needs to be optimized
  - Attach tension rod system
Tread Issues

- Initial design was functional but needs to be optimized
  - Symmetry of tread tightening system
  - Optimize tension force
Tread Issues

- Initial design was functional but needs to be optimized
  - Build out of Aluminum
  - FEA to determine minimal use of materials
  - Test current braking power
Other Issues

- Difficulty of retrofitting
- Weather
Questions?