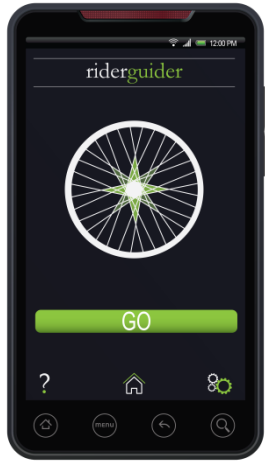# The Mobile Application

Uses Existing Hardware

- Uses the phone's GPS to identify the rider's location
- Uses Bluetooth™ to communicate directions to the bike unit

Clear User Interface

- Rider inputs the destination address
- Application sends address to MapQuest™ and receives list of turns on the route
- Phone is put away for the duration of the ride
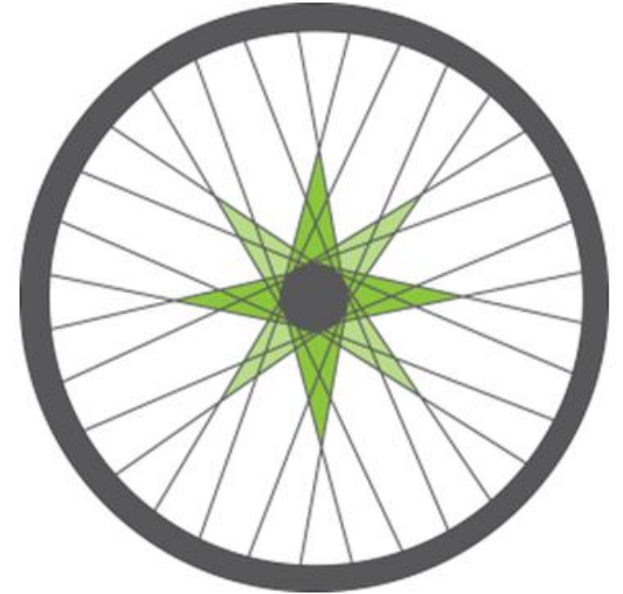

Always Right, Every Turn

- Application updates in real time and provides new directions when riders go off-path
- Error screens display when phones loses GPS signal or Bluetooth connectivity

Acknowledgements

Team Green

Ahmed Alnemer	Arash Kani
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riderguider
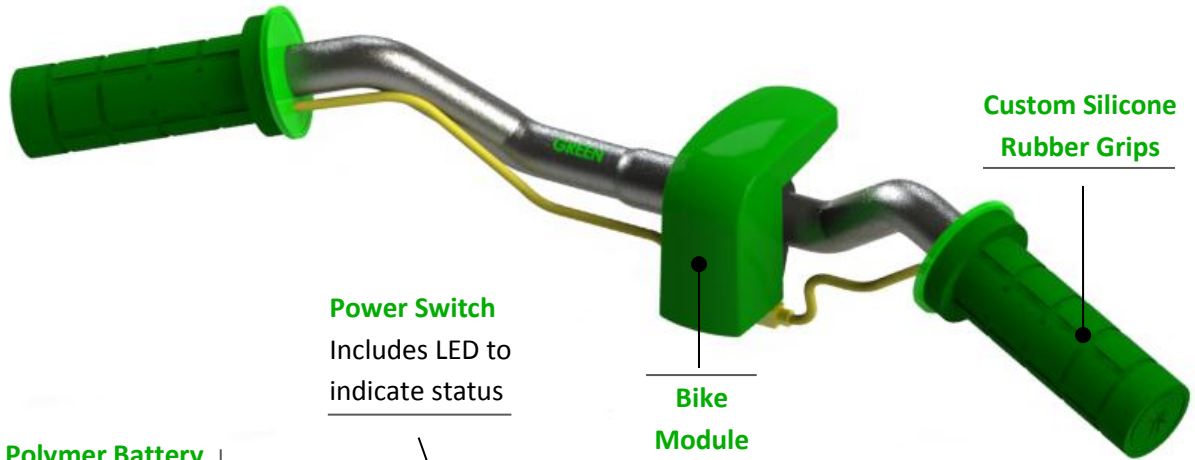

2.009 December 10, 2012
Green Team

Our Product

RiderGuider offers worry-free, safe, and affordable bike navigation.

- Uses a mobile application and vibrations in the grips to direct the rider.
- Eliminates dangerous visual distractions.
- Integrates directions directly into the biking experience.

Affordable navigation solution for young professionals and college students.

- Allows users to confidently navigate unfamiliar routes without compromising safety.
- Offered at a retail price of $50 and easily installed on existing handlebars.

The Bike Module

Custom Silicone Rubber Grips

Power Switch
Includes LED to indicate status

Bike Module

Lithium Polymer Battery
Provides 11 hours of battery life

Outer Shell
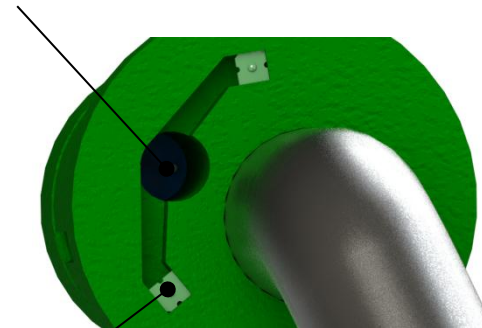Waterproof hard casing protects electrical components

Printed Circuit Board

Handlebar Mount

Arduino Microcontroller
Interprets and transmits signal to motors and LEDs

Bluetooth Receiver

Vibration Motor
Communicates directions via vibration

LEDs Flash directional signals

USB Recharge Board
Recharges battery

Copper Contacts
Transmit signals from central module to mount