

Go Charging Electric Bicycle

Team 8

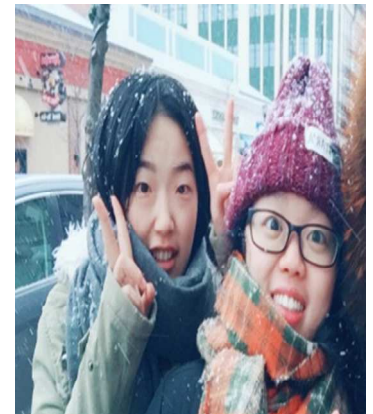
Picture of Similar Product



• Yongkuo Zhou



• Zhen Zhang



• Fuyao Ni



• Cien Xiao

• Trevor Schutte



• Musab Alshammary



Go Charging Electric Bicycle

Description

- **Purpose of Product**

An electric bicycle uses a hybrid type battery system to go further and more efficiently.

- **Feature 1**

Hybrid battery system: using a combination of super capacitors and chemical batteries

- **Feature 2**

Three modes: Automatic, Manual, Charge

- **Feature 3**

Active breaking similar to the Prius system; using the motor to slow you down and charge the battery.

- **Market (Country List or Description)**

North America(120V,60Hz)

Go Charging Electric Bicycle

Key Requirements

Cost

Sales Price: \$250, Component Cost: \$75, Assembly & Test Costs: \$35

Environment

Primary Outdoor(Charging Indoor)

Operating Temp Range: (-15 to 55)

Operating Humidity Range: (0% to 100%)

Power Input(s)

Residential AC Power: 102 – 132 VAC (For Charging)

Battery Power: Valve Regulated Lead Acid Battery (VRLA) 24V (Nominal)

Major Functions, Quantities Measured, Displayed

Function: Automatic, Manual, Charge

Quantity Measured:

Slope and Tip over :Range: -90 to +90 degree, Accuracy: +/-1 degree, Resolution: 0.1degree

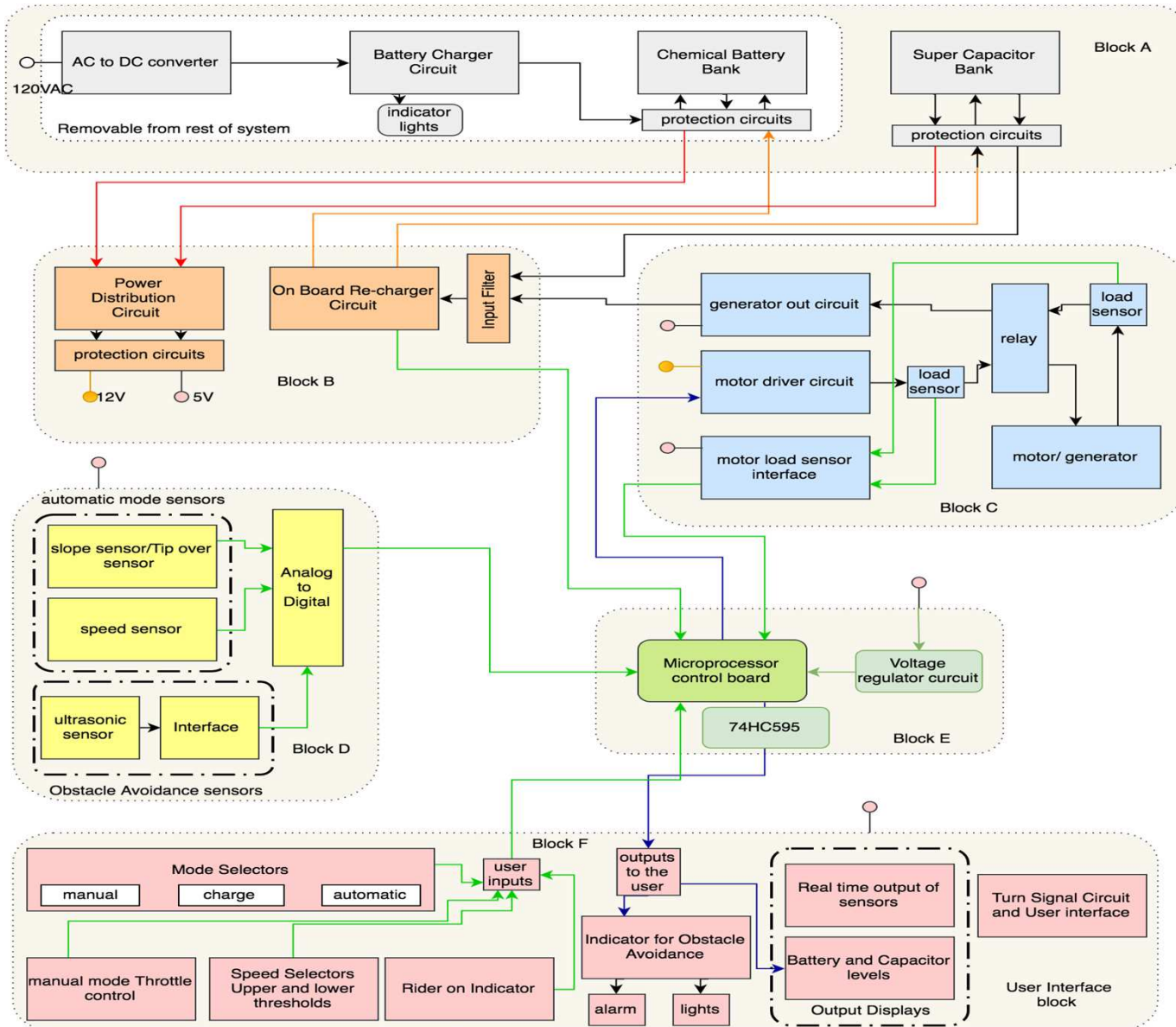
Speed Range: 0 to 15 m/s, Accuracy: +/- 0.1m/s, Resolution: 1 m/s

Obstacle Range: 2 to 15 m, Accuracy: +/- 0.02m, Resolution: 1 m/s

Displayed: Selected Speed, Driving Mode, Battery Energy Storage

Go Charging Electric Bicycle

Block Diagram



Block A: Musab
 Block B: Zhen Zhang
 Block C: Trevor
 Block D: Fuyao Ni
 Block E: Yongkuo Zhou
 Block F: Cien Xiao