



Team # 4



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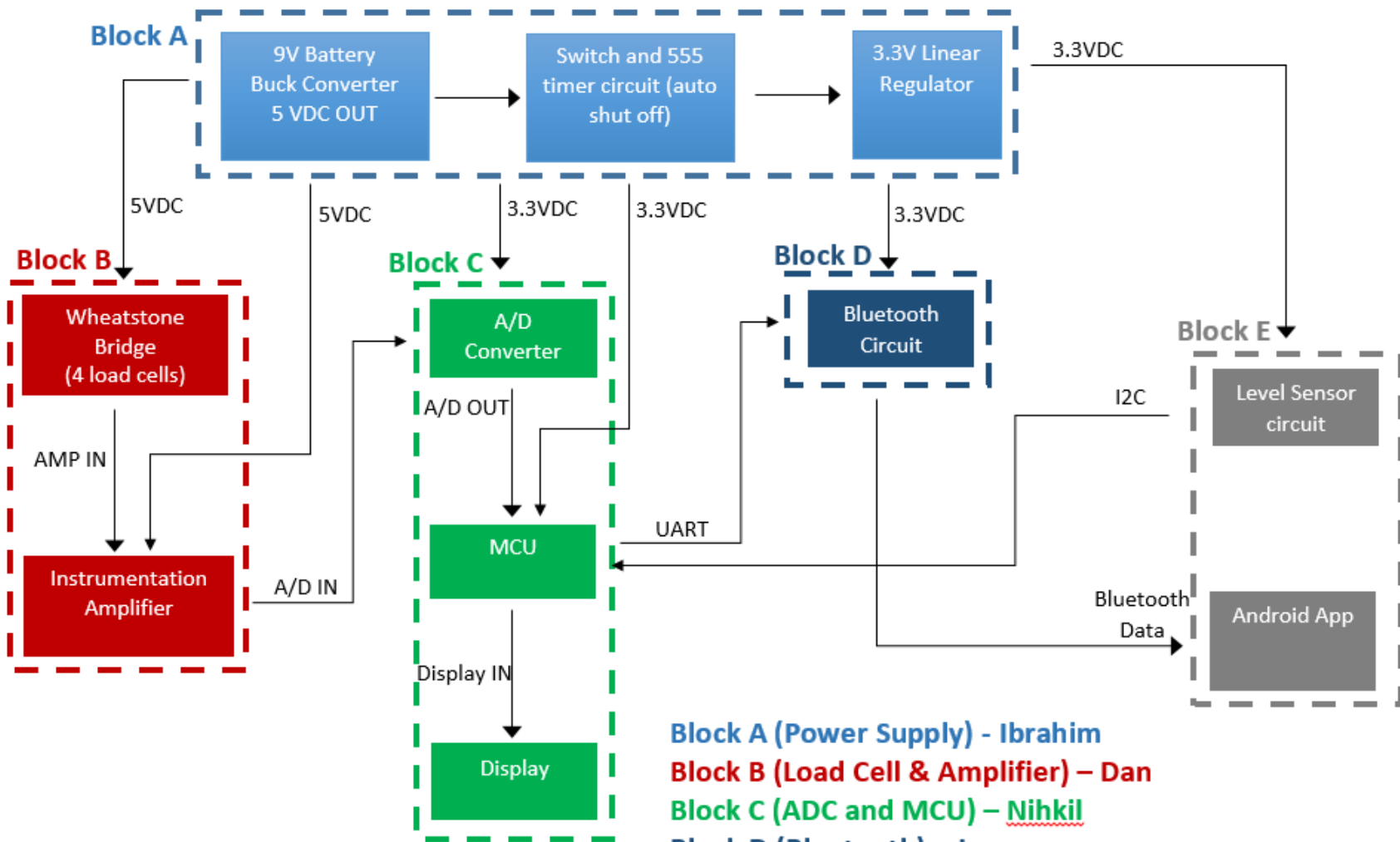
Description

- Personal health/fitness scale which ties with smart device application for tracking weight data.
- Zeroing and leveling functions ensure quick and accurate readings, displayed on scale and app.
- Data will automatically transmit to app via built-in Bluetooth module.
- Easy-to-use application will monitor weight trends and display data over desired time period(s).
- This Product is intended for individuals 10 years and older in the United States.

Key Requirements

- **Cost**
 - Sales price: \$90
 - Component cost: \$30
 - Assembly & Test cost: \$13
- **Environment**
 - Indoor use only
 - Operating Temperature: 10^oC - 30^oC
 - Operating Humidity: 0 – 100%
- **Power Input(s)**
 - 9V battery (not included with device)
- **Major Functions, Quantities, Displayed**
 - Weighing: 0 - 440 lbs., resolution +/- 0.1 lbs., accuracy +/- 0.5%
 - On/Off momentary push button switch, sleep, zero/taring
 - Measures weight in pounds (lbs.)

Block Diagram



Block A (Power Supply) - Ibrahim
 Block B (Load Cell & Amplifier) – Dan
 Block C (ADC and MCU) – Nikhil
 Block D (Bluetooth) – Joe
 Block E (Level Sensor & App) - Sam