## **Brief Overview**

Battery: Provides power for all electrical components.

Beaglebone Black: The brain of the robot.

**Motor Controller:** Controls the amount of power that goes to the motor.

**Motor:** Converts electrical energy into mechanical energy to move the robot.

**PDB (Power Distribution Board):** Distributes power to all electrical components.

**RFID Sensor:** Reads wirelessly powered and transmitted data.

**Servo**: Converts electrical energy into precise degrees of mechanical movement. Polarity: GND = Brown, VCC = Red, SIG = Orange

Servo Controller: Controls servo motors.

**Smart Sensor:** Relays information from sensors to robot.

Team Flag: Displays team color.

**USB Hub:** Interfaces all components with Beaglebone Black.

Wi-Fi Dongle: Connects to Wi-Fi network.

## Wires/Connectors

USB A to Micro B



**Anderson to Anderson** 



ATX



**Barrel Jack** 



**MTA** 



**XT60** 



