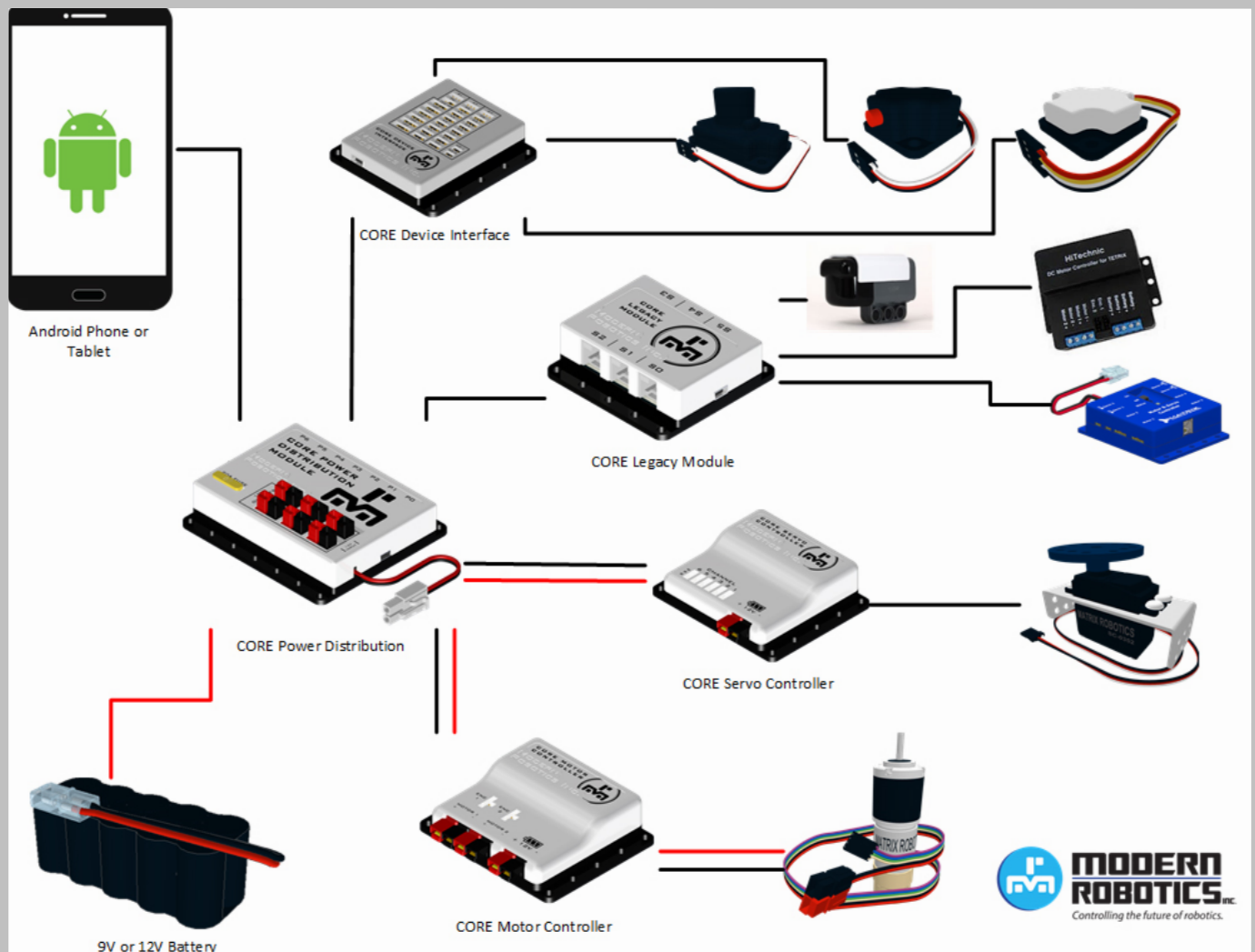


HOW TO MAKE YOUR ROBOT MOVE

TEAM HAZMAT

Hardware

- 1 Modern Robotics Power Distribution Module
- 2 Modern Robotics Motor Controller
- 1 Modern Robotics Servo Controller
- 1 Modern Robotics Legacy Module
- 1 Modern Robotics Core Device Interface
- 1 OTG USB cable
- 5 USB cables
- 3 Powerpole power cable
- 1 Modern Robotics Touch Sensor
- 1 Modern Robotics Optical Distance Sensor
- 1 Modern Robotics IRSeeker V3 Sensor



Programming and Setup

The Process:

- 1) Set up the two phones included in the official package
 - Install Drivers
 - Download apps
- 2) Creating a custom configuration mode for your robot
 - Create a new config mode in the robot controller app
 - Register each motor and servo
- 3) Setting up the driver station
 - Pair with the robot controller
 - Connect gamepads via USB hub
- 4) Creating a custom Operation mode
 - Create a new Op mode class in Android Studio
 - Implement initial and main loops
 - Register Op Mode
- 5) Writing your first code
 - Load “map” of robot for use by program
 - Create variables for each motor and servo
 - Create code that modifies those variables when the correct input is registered

Helpful Tips:

- Take out the SIM card - connecting to cellular can cause issues
- Restart robot from Robot Controller app whenever an error occurs - fixes many simple errors
- Check that each input and output is correctly named
- Switch gamepad to “X” mode - the input will not register properly otherwise

Further Resources:

- A game manual should be included with your official package - Great setup guide
- <http://ftc.edu.intelitek.com/> - Step by step guide to setting up all software
- <http://ftcforum.usfirst.org/forumdisplay.php?156-FTC-Technology> - The FTC forum, where you can view questions that other teams had and ask your own.