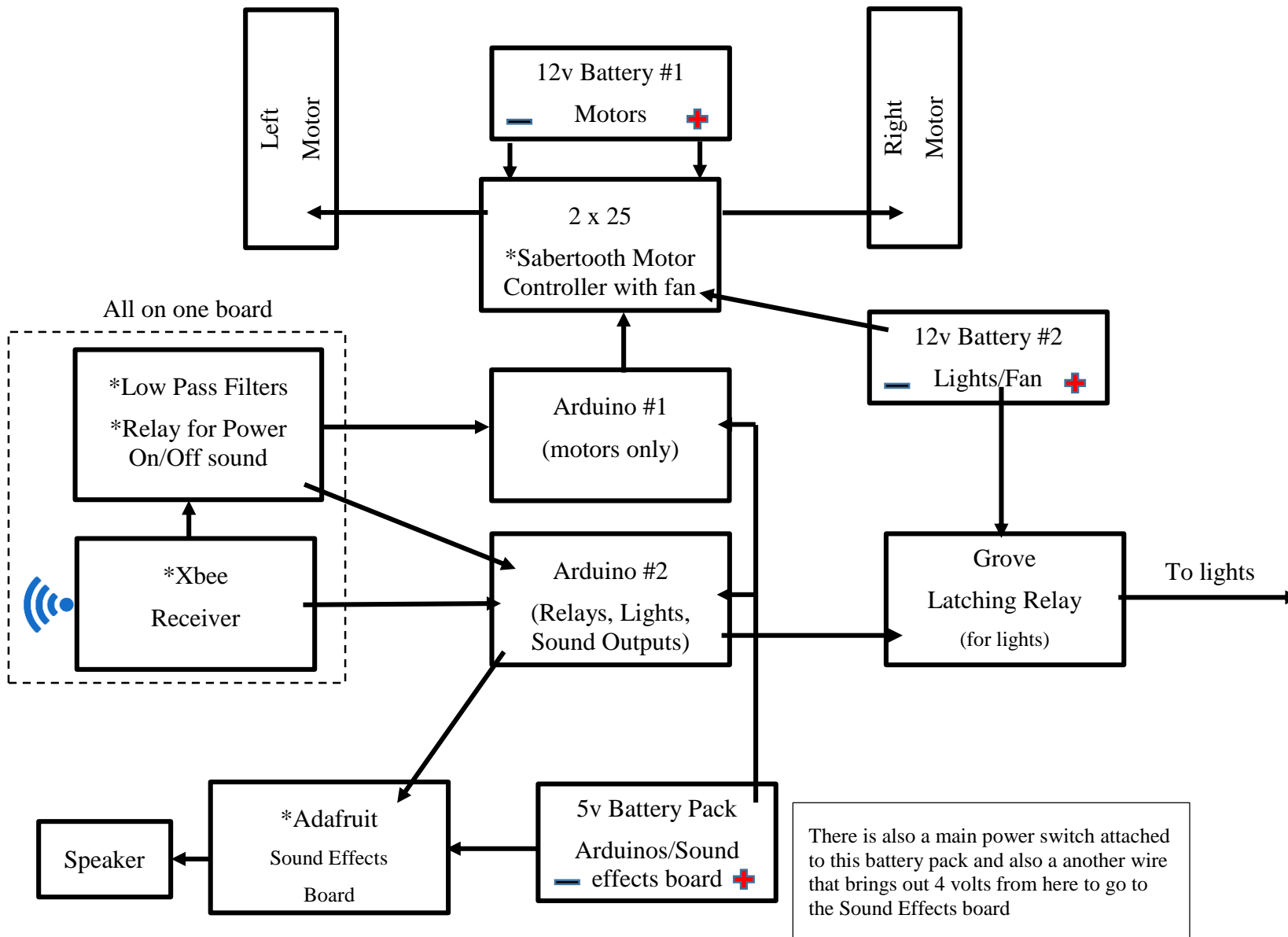


Platform Wiring Diagram * means more information available on second page



Low pass filters – used to buffer the PWM signals sent out by the Xbee before they enter the Arduino and get converted to servo signals.
More information on low pass filters can be found here: http://www.electronics-tutorials.ws/filter/filter_2.html

Xbee Receiver – receives 2 PWM signals for the motors and 3 digital signals. The digital signals go to the second Arduino. These signals operate the following:

- The main power On which is a large power relay part of a shield for the Arduino. Information can be found here:
 - <http://shop.evilmadscientist.com/productsmenu/tinykitlist/544>
- Lights on/off powered by a Grove latching relay. Information can be found here:
 - http://www.mouser.com/catalog/specsheets/Seeed_103020010.pdf
- Blaster sound effect (high signal sent to the Arduino and then gets changed to a low signal that triggers the blaster sound on the AudioFX board. (see Arduino sketch)

Relay for Sound On – The AudioFX board generates sounds when a corresponding input gets a low signal but I couldn't find a way to have the power up and power down sound only trigger once while the Arduino sketch kept running so I put in a small relay that turns on when the power switch on the remote is activated. This relay sends a low signal to the Arduino board and the sketch uses it to only turn on the power up sound when the unit is powered on and the power down sound when the unit is powered down.

Adafruit AudioFX board – With this board you can download and play sound effects by triggering various pins. See here for info:

- <https://www.adafruit.com/products/2217>

Sabertooth Motor Controller – Takes the servo signals from the Arduino and sends power to the motors. Information can be
Found here: <https://www.dimensionengineering.com/datasheets/Sabertooth2x25.pdf>

** There is also a 4 prong connector that attaches the 2 - 12v batteries to double chargers so each battery gets a trickle charge when the unit is plugged in.