Arduino MIDI, Drum Machine Costume

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Idea: Create a functioning drum machine costume. Plan is to have 4 piezo sensors and a potentiometer to change the sounds on the “drum pads”.

Notes

* Able to transmit over either the Tx pin with the Serial.Write() command, or other digital pins using the SoftwareSerial module. Observed the bits on the oscilloscope, need to make sure you’re triggering properly to catch and view the bits as they go by.
* It appears that the serial Tx lines sit at 5V when not transmitting.
  + What’s the term for this? 1 = 0V, 0 = 5V?
* Bluetooth audio output from Garageband on iPhone is possible, but must set Bluetooth as an audio output inside the Garageband app

Hardware Issues

* 9V battery did not power on the Arduino
* Arduino appears to be running old version of code when ran off power, but runs the correct code when powered off of USB and connected to computer
  + Issue seems to be related to power. Different, more powerful going straight into the Vin pin at about 8v works perfectly. Hoping I can find a battery solution.
    - 4 AA’s in series works to power on Arduino and run the code with no lag (like I was seeing before w/ the faulty wall wart. Great!)

Software Issues

* Must be very careful with arrays in Arduino code. Make sure you’re pre-allocating everything very specifically.
* Ohmergerd, remember to change the baudrate from 9600 to 31250 when going from printing to Serial to MIDI communication

Costume Issues

* Hot glue works very well for gluing the foam to the t-shirt, but it bleeds through and sticks on the other side. Should have put cardboard inside to prevent that