I have received the MIDI keyboard and started to interface this with the microcontroller. As of now I am using my own personal microcontroller since we have not ordered one for the project yet. The first task is receive and decode the signals from the keyboard. The next step will be to implement and test our key press algorithms using a piezo buzzer.

History

10/24/2012 09:39 am - Jonathan Hoffpauir
I have run into a problem with trying to receive the MIDI signal. It seems the circuit i had researched and designed is only capable of sending MIDI signals, not receiving. I have ordered and received new parts to build the new circuit.

11/13/2012 10:27 pm - Jonathan Hoffpauir
The new circuit with the optocoupler was built. The Arduino is having trouble receiving the signals properly. Some signals come through correctly, but others are corrupted. I have tried a separate keyboard, however the same error persists. This verifies that the keyboard should be sending the signals properly. The data corruption is on the software side, or with the optocoupler. I need to use an oscilloscope to verify that the data is being sent properly to the arduino.

11/25/2012 05:01 pm - Jonathan Hoffpauir
- Status changed from New to Resolved
- % Done changed from 10 to 90
I have been able to verify that the keyboard is not the fault for the data corruption issue. I have probed the circuit with an oscilloscope and verified that data is being received, however I am unable to determine if it is corrupted or not. To do this I would need a serial logic probe of some kind. We do not have access to this type of tool as far as I know. Because of this, I feel we will not be able to pinpoint the source of the corruption. This likely means that we will have to settle for the user input system to be working as it is. It works properly 70-90% of the time, and we may have to live with the few bugs.