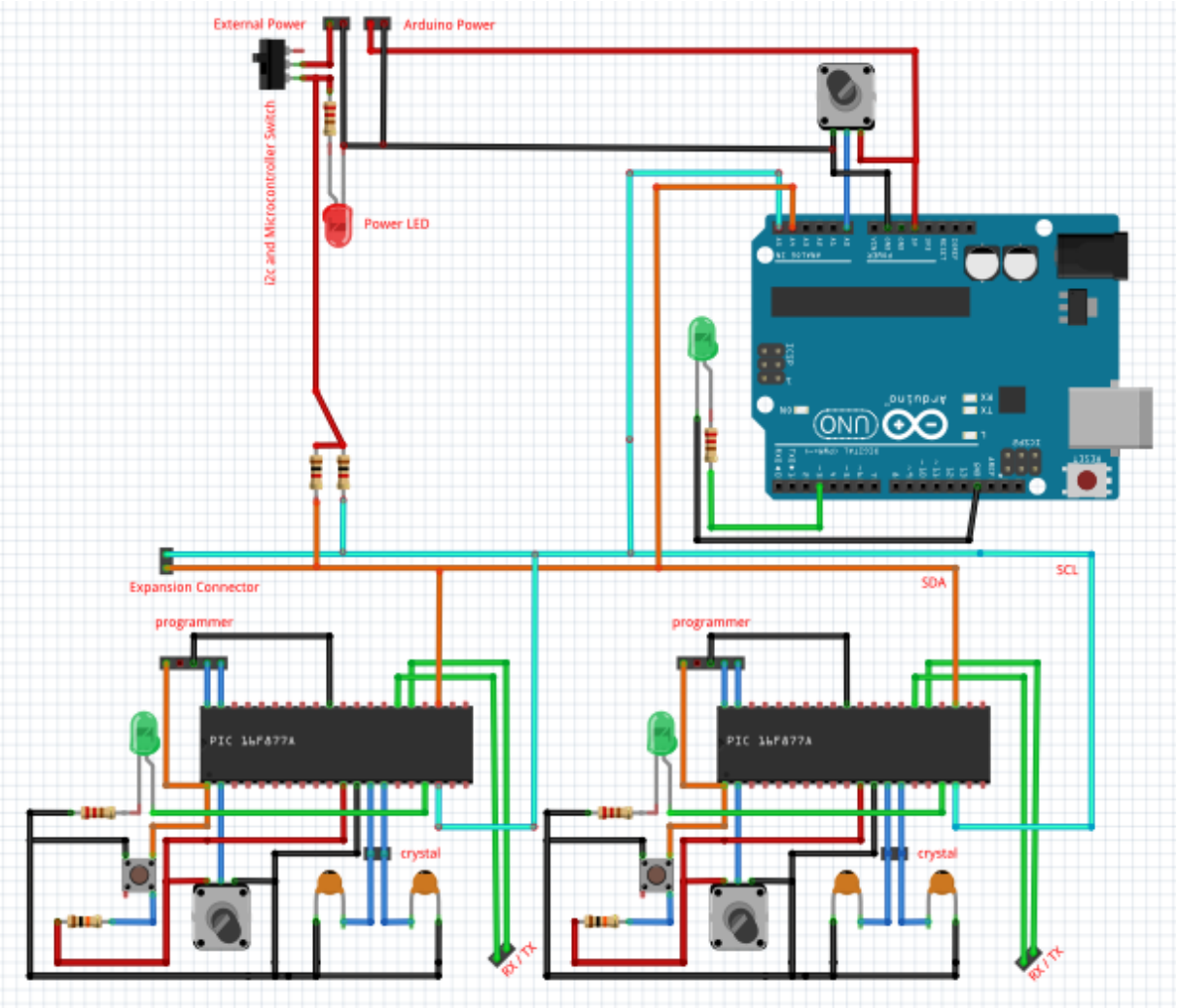
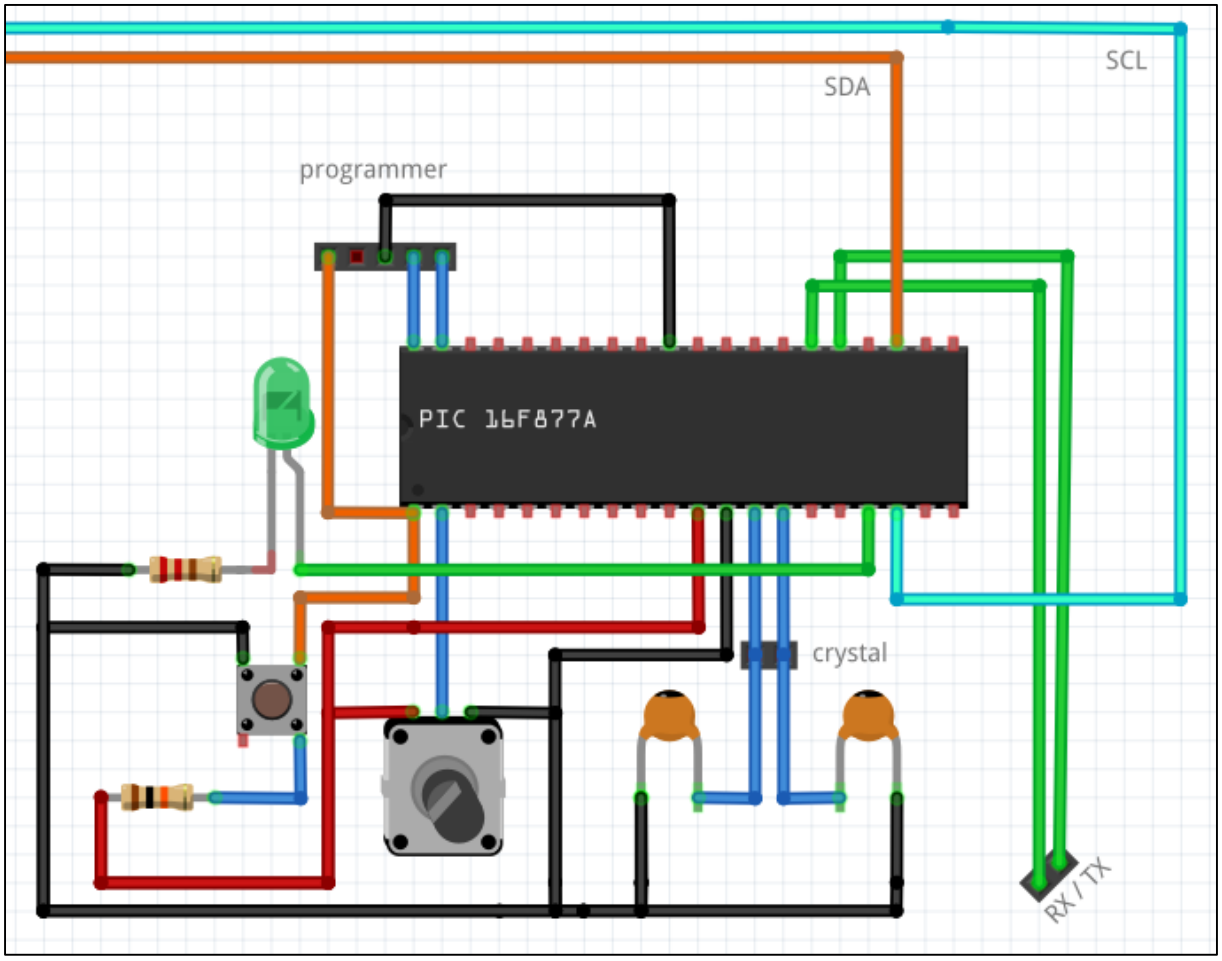
i2c Test Board Information Document

i2c test board is an electronic experiment setup in order to be used in testing i2c communication between devices. There are three different prebuild development board on it, which are two PIC16F877a and one Arduino Uno. With this prebuild and hardware-ready board, user can test the i2c communication and variable type converting with potentiometric inputs, visual outputs (LED) as well as serial communications. The general connection scheme can be seen below;



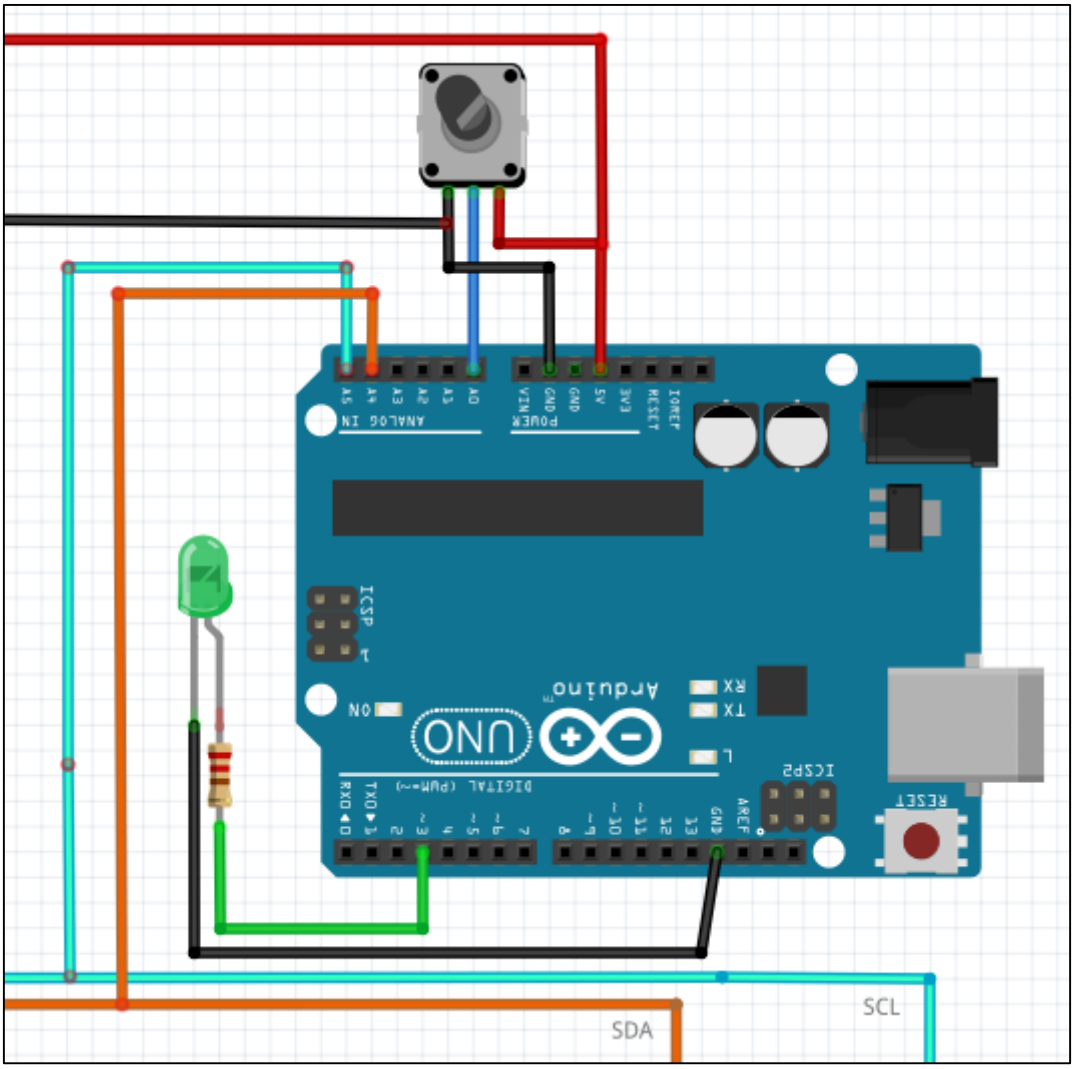
Connection diagram of PIC16F877a;



- Potentiometer analog input => Pin 2 (RA0/AN0)
- Led digital (or PWM) output => Pin 17 (CCP1)
- Serial Communication TX/RX => Pins 25 and 26

Note: With the help of the connections on MCLR (pin1), PGC (pin39) and PGD (pin40), the user can upload the program to the microcontroller with necessary connections. Also, it is possible to use any external crystal since the OSC1 and OSC2 are connected to external header.

Connection diagram of Arduino Uno;



- Potentiometer analog input => Pin A0
- Led digital (or PWM) output => Pin 3

It is possible to connect more i2c devices to data bus of the board by using the expansion connector. An example usage of connecting a raspberry pi to i2c bus can be seen below;