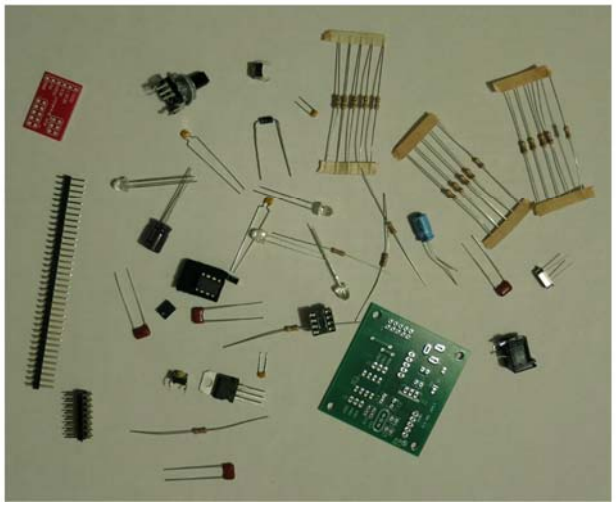
ATtiny45 Board Assembly Instructions

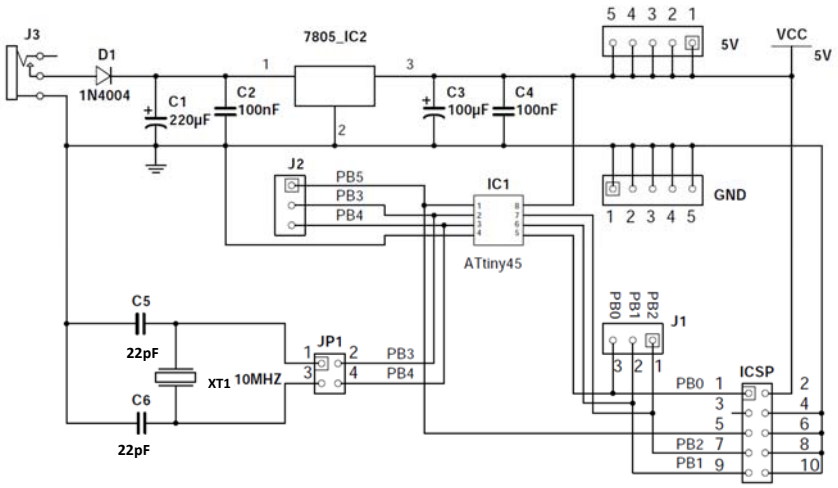
Embedded Systems – Spring 2014

Some of Kit_A's Components



… assembly (soldering, etc.) is required to build the Attiny45 µC board!

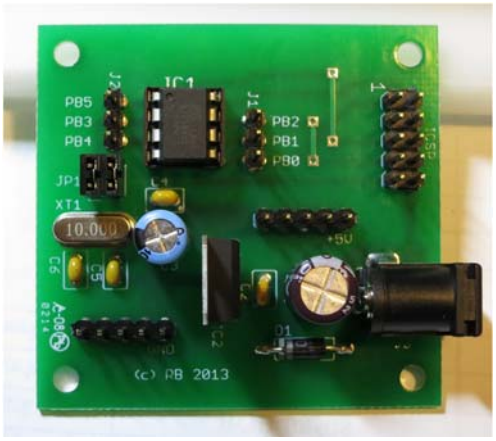
ATtiny45 Board Schematic

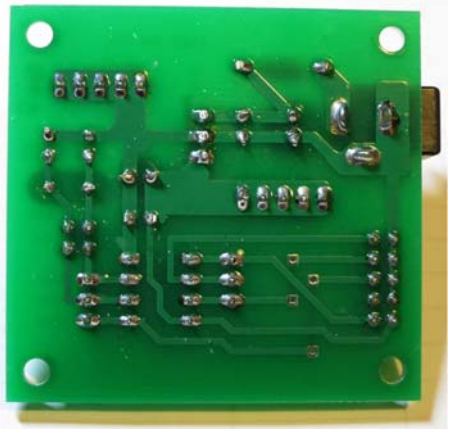


Main Components of the ATtiny45 Board

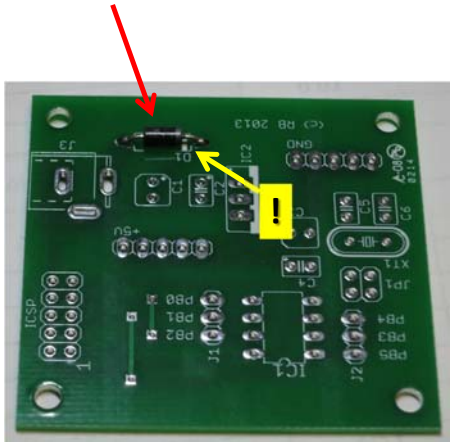
- D1 … 1N4004 diode
- IC1 … ATtiny45-20PU microcontroller
- IC2 … LM7805 lin. voltage regulator (+5V)
- C1 … electrolytic capacitor 220 µF/25V
- C2, C4 … ceramic capacitor 100 nF/50V
- C3 … electrolytic capacitor 100 µF/16V
- C5, C6 … ceramic 22 pF/200V
- XT1 … 10 MHz Crystal

Assembled ATtiny45 Board



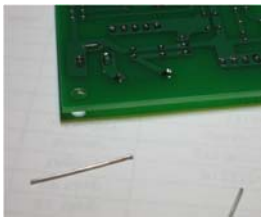


1) Install D1

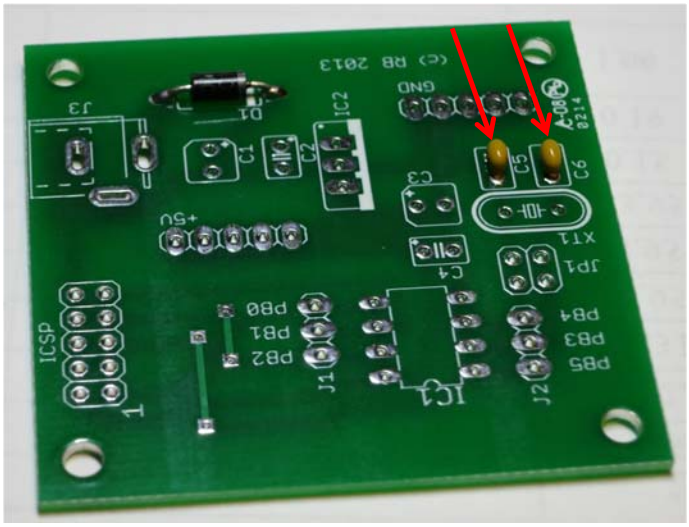


Note: slightly bending the wires of D1 - as shown below - helps do keep D1 in place during soldering.

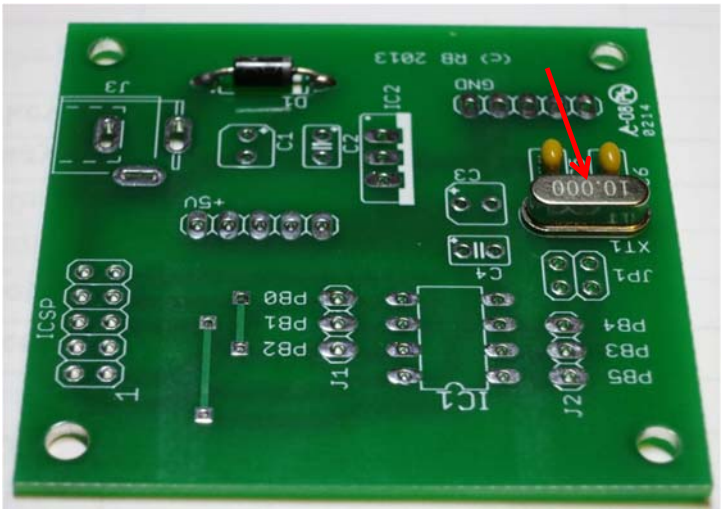
Trim the wires after soldering.
Wear safety glasses!



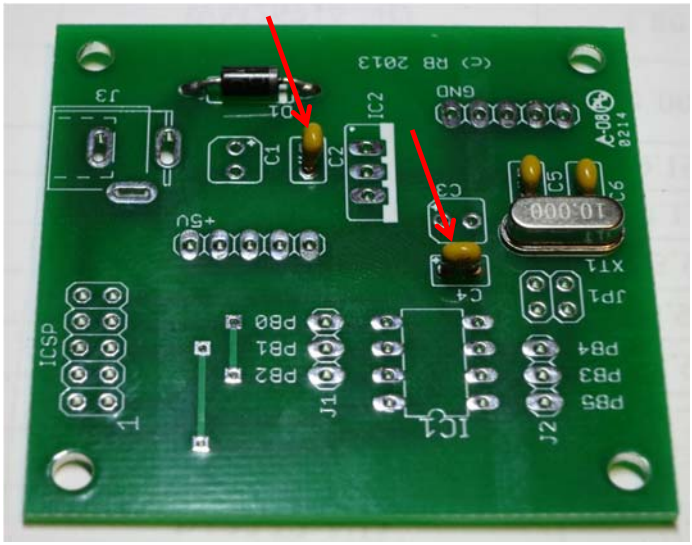
2) Install C5 & C6



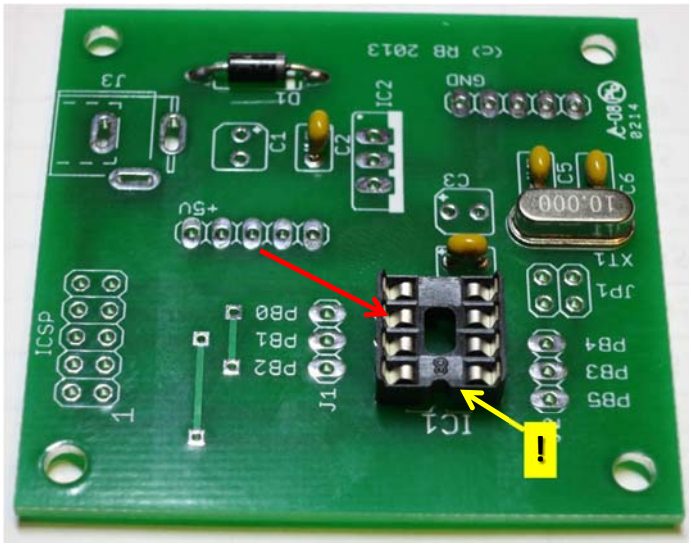
3) Install the Crystal XT1



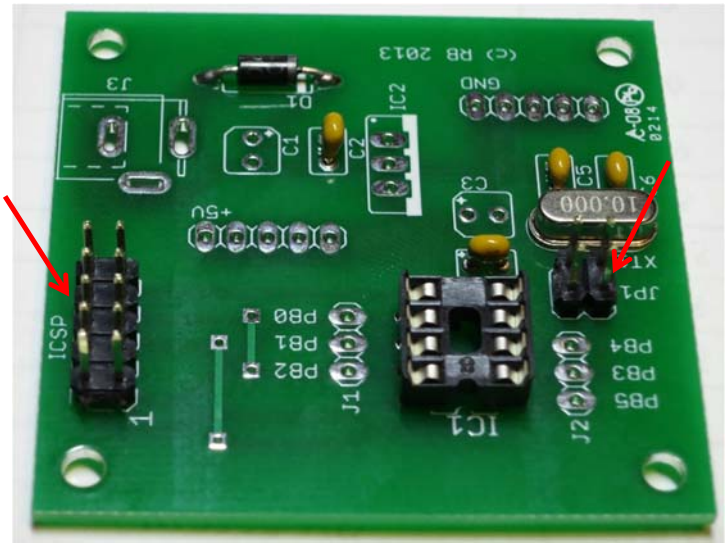
4) Install C2 and C4



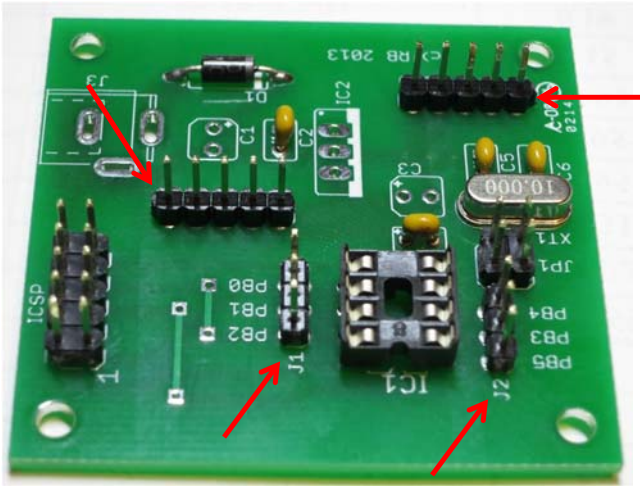
5) Install the DIL8 Socket



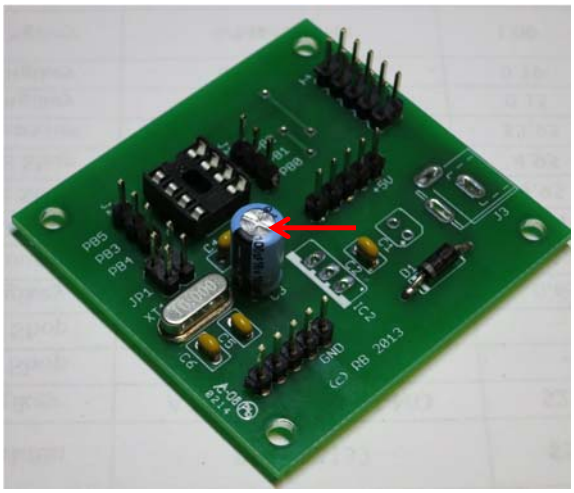
6) Install the Double-Row Headers ICSP & JP1

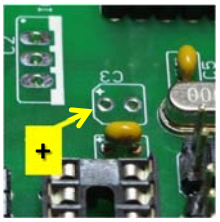


7) Install the Single-Row Headers +5V, GND, J1 & J2

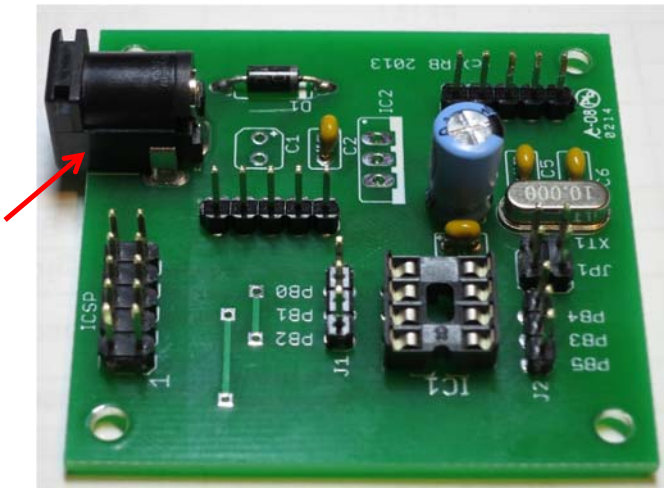


8) Install C3

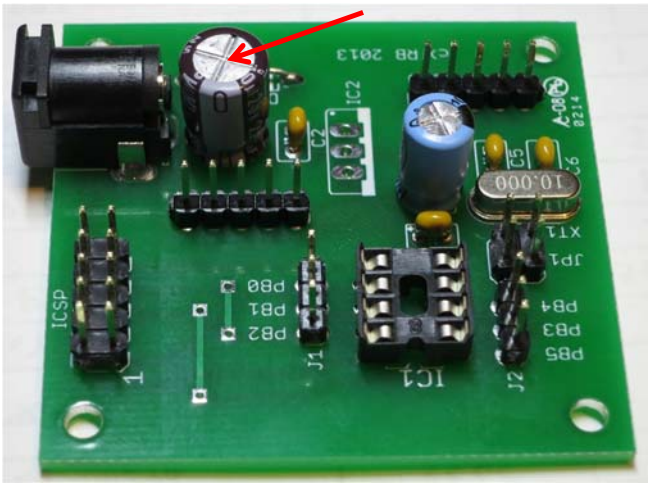


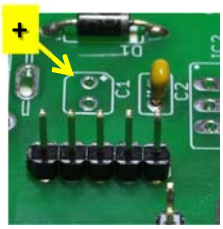


9) Install J3

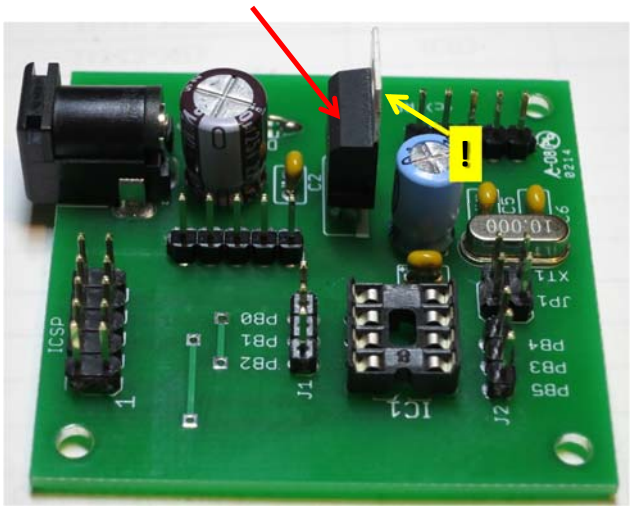


10) Install C1

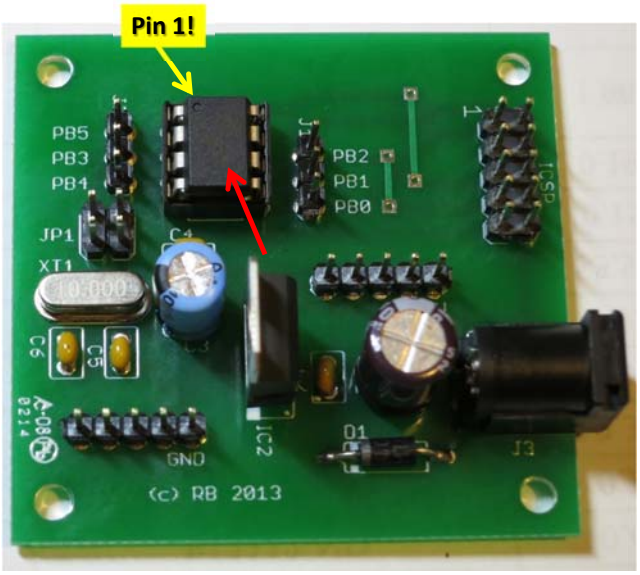




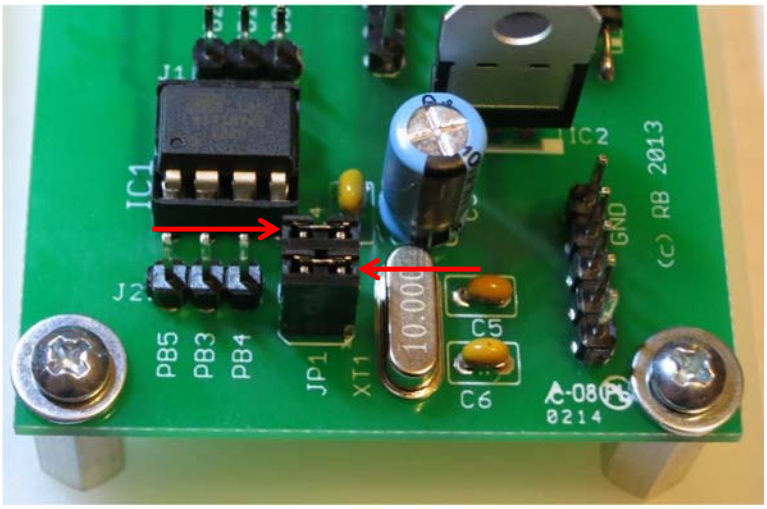
11) Install the LM7805



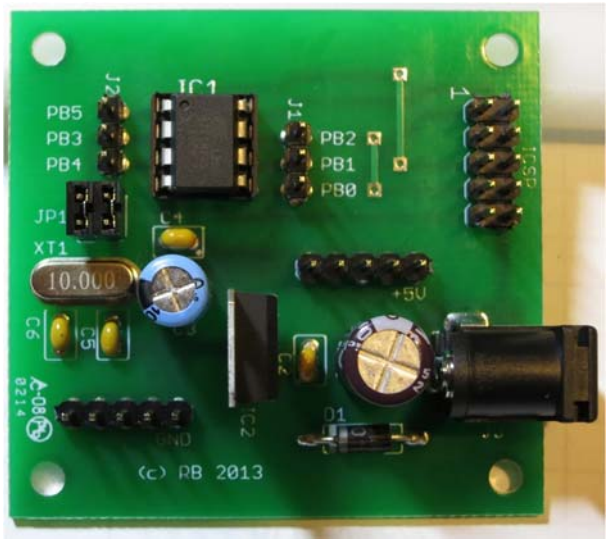
12) Put the ATtiny45 in it's Socket



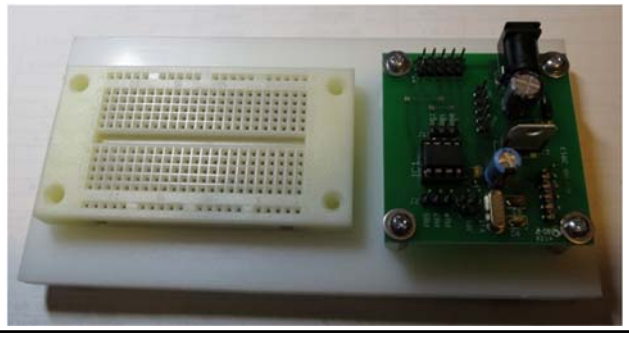
13) Install the Jumpers



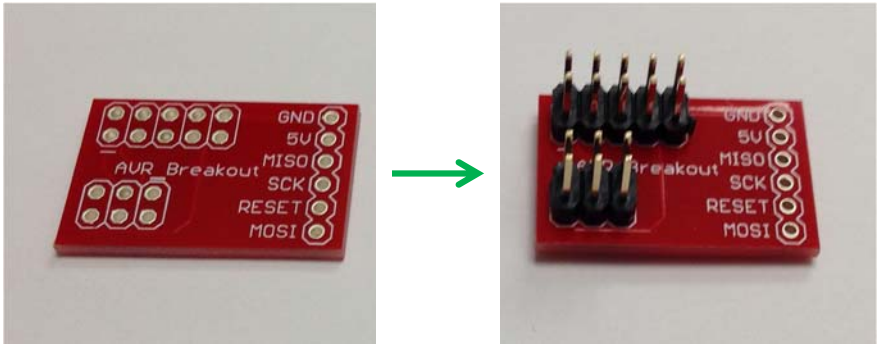
14) Double-Check and Test The Board!



15) Mount the Bread- and ATtiny45-Board to the Baseplate



16) Assemble the Programming Adapter



17) Enjoy ☺