**Not So Smart Watch Instructions**

1. Sort your parts and remove the chips from their sockets.
2. Mount the small round silver metal crystal between R1 and R2.
3. Mount the 3 pack of resistors (1 Meg Ohm, brown, black, green, gold) in R1, R2, R3.
4. Mount the 2 pack of resistors (10 k Ohm, brown, black, orange, gold) in R4 and R5.
5. Mount the single resistor (100 Ohm, brown, black, brown, gold) in R6.
6. Mount the 8 and 20 pin chip sockets, noting the mark on the top is pin 1, installed at the arrow on the board.
7. Mount the small yellow capacitors at C1 and C2. Save the cut wire leads.
8. Using those 4 leads, solder the inverter board to the middle of the watch. Use a wire lead in the holes; **in-, in+, 5v, and GND** of the inverter. Try to get the inverter board flush with all leads before soldering top and bottom. There are no leads in D+ and D-.
9. OPTIONAL - To save battery power, use the soldering iron to melt off the inverter’s R1 resistor (this will disable the LED).
10. Mount the 2 buttons (Mode and Enter).
11. Mount the blue round super cap (negative is the wire on top which goes towards the bottom edge).
12. Mount the slide power switch. This switch can’t take a lot of heat, so solder quickly.
13. Orient and lay flat the FET (Q1) before soldering. Its profile must be at a minimum.
14. Mount the 16 pin male header above resistor R6. Solder one pin, check alignment, then solder the rest.
15. Mount beeper (long side is positive).
16. Place the Velcro wrist band in top slot, then solder the AAA battery holder. The holder is mounted at a slight angle, for if it is flush, you won’t be able to get the band in the slot.
17. Solder the 16 pin female header on the BOTTOM of the LCD. It will mate with the male header on the watch board so that the LCD can be removed to show all of your friends.
18. Mount the 8 pin clock and 20 pin processor chips, noting pin 1 goes to the arrows.
19. Mount a battery, checking polarity, and turn the watch on. It should display zeros, then start keeping time. Step through the menus to CapChrg? and select Y. Let the watch charge for an hour before setting the time. Or to avoid having to charge, you can add a diode to the plus side of the Super Cap and to the +5 out on the inverter (diode’s black band toward the Cap). Also, hot glue on the pins of the crystal (both on the top and bottom of the board) will keep moisture out of the timing circuit.

Currently, the watch tells the date and time. To enable the speaker, or other cool options, get a 6-pin programming header and an Atmel programmer (USBASP) and have at it. We used BASIC for the firmware you have now, and is available on our webpage to hack away.

Any issues, email Flash Corliss at [flash@flash.net](mailto:flash@flash.net)