XLR8 Blutooth RF module

Soldering Guide

Electronics Club

IIT Bombay

About

This guide describes the soldering of PCB (Printed Circuit Board) for XLR8 RF Bluetooth module.

It presumes the following

- have the components for building the PCB.
- Have done soldering before.

Components

Components required for building the Bluetooth RF module

- XLR8 PCB
- Attiny 2313A microcontroller

- 2x5 ISP male connector

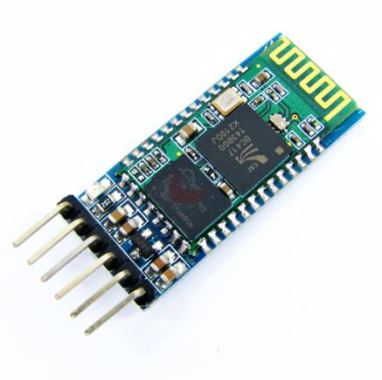
- 1x2 & two 1x4 male bergstrip (can be right angled or straight)

- 20 pin DIP IC Holder

- Zener Diode (5.1V)

- Resistor in range 1K to 10 K

- Bluetooth Module HC05/06

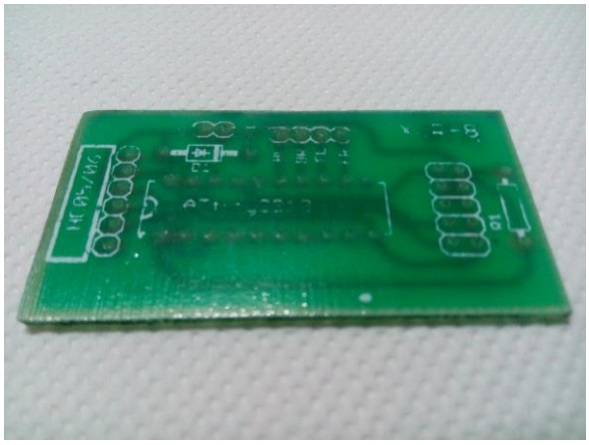


Some guidelines to follow

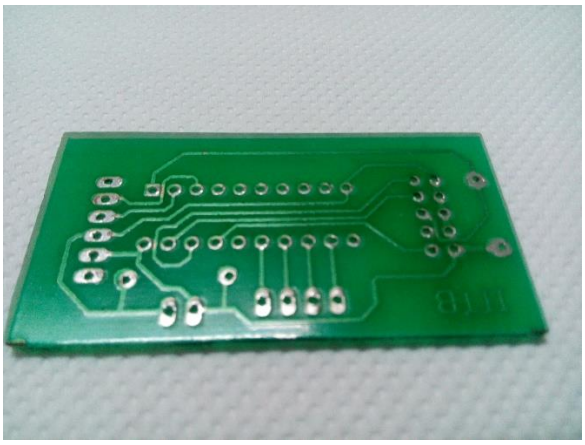
- Start soldering from the bigger sized flat components (like IC holder , Right angled bergstrip, resistors…) and then taller components (like capacitors, Straight bergstrip, connectors).
- You may apply solder flux for good soldering finish.
- Do not apply too much solder as it is unnecessary.

Steps

- PCB (without soldering, initial)

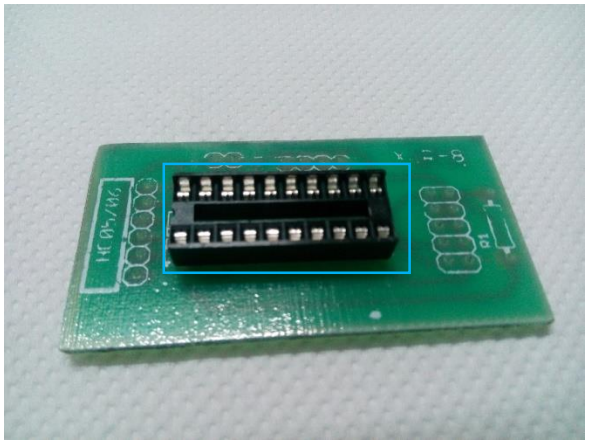


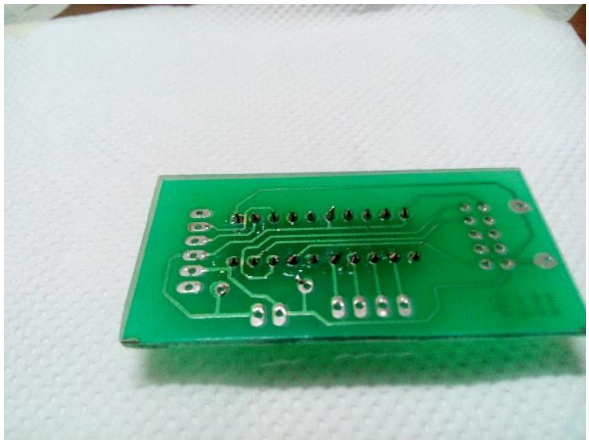
(TOP)



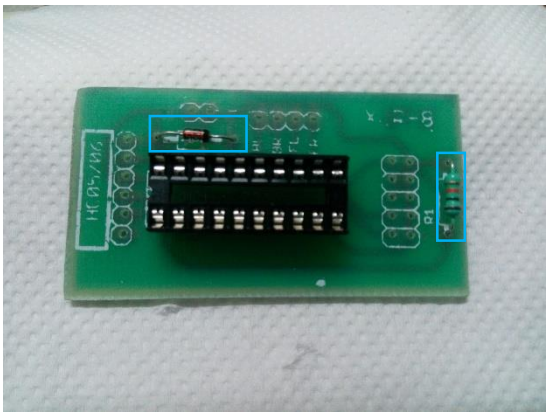
(BOTTOM)

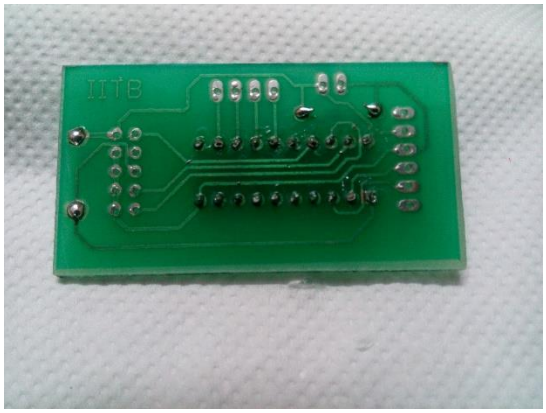
- Solder IC holder



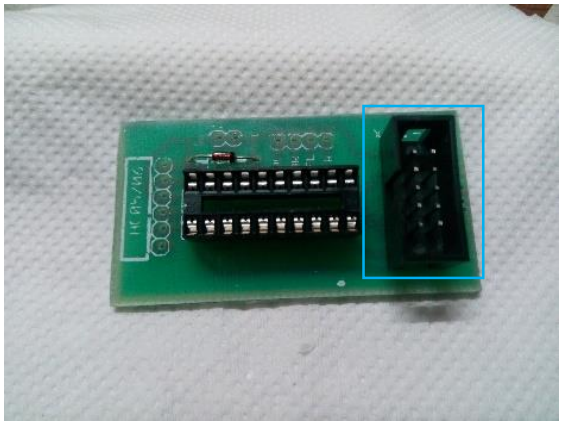


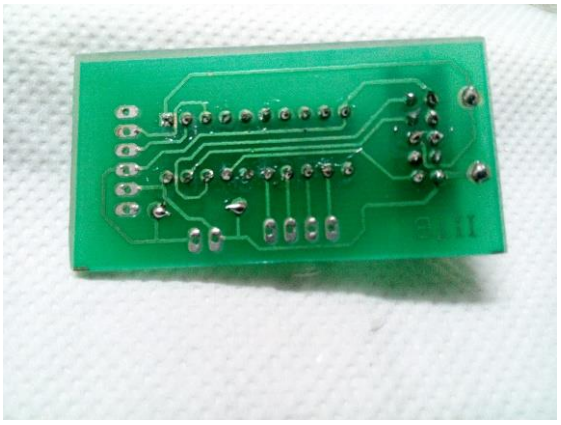
- Solder Resistor & Zener Diode (/!\ Note polarity)



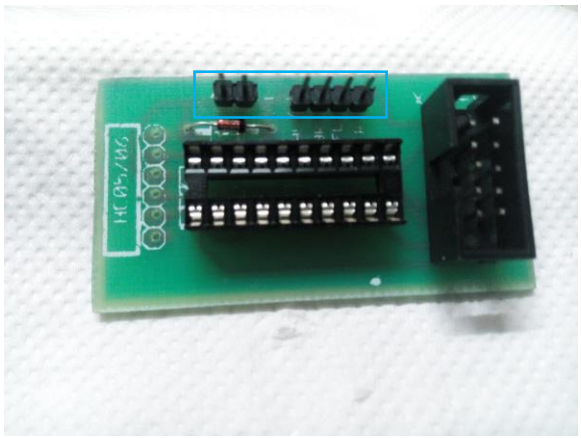


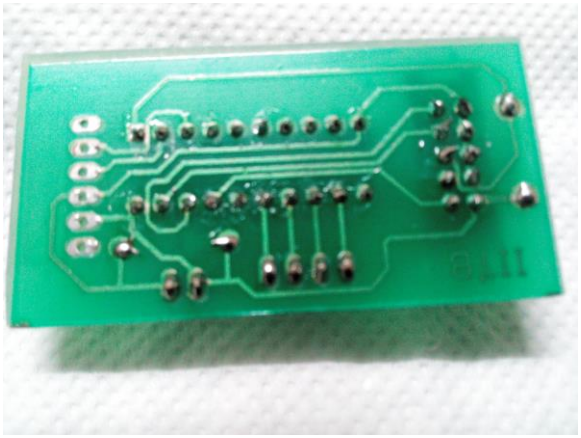
- Solder the ISP (In System Programming) Socket (! Note orientation)

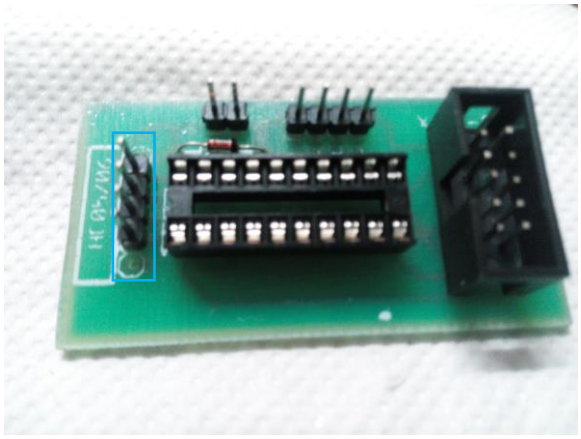


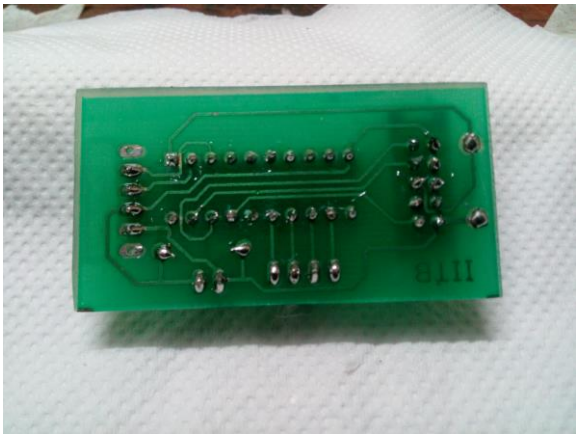


- Solder Male Bergstrip Pins



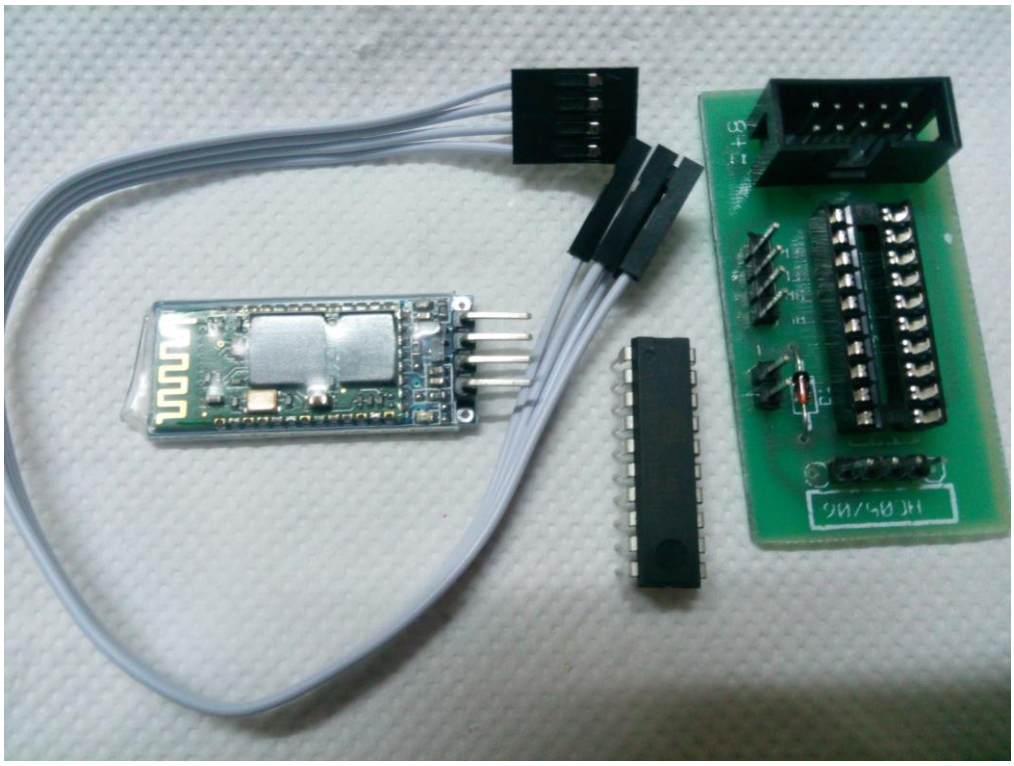




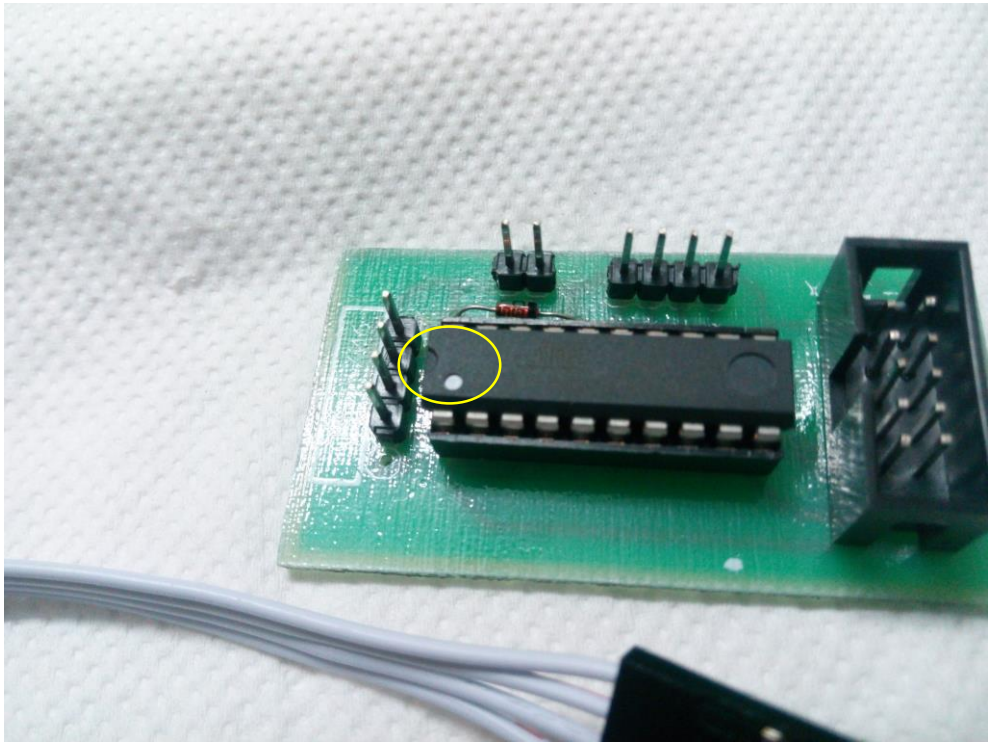


Final Assembly

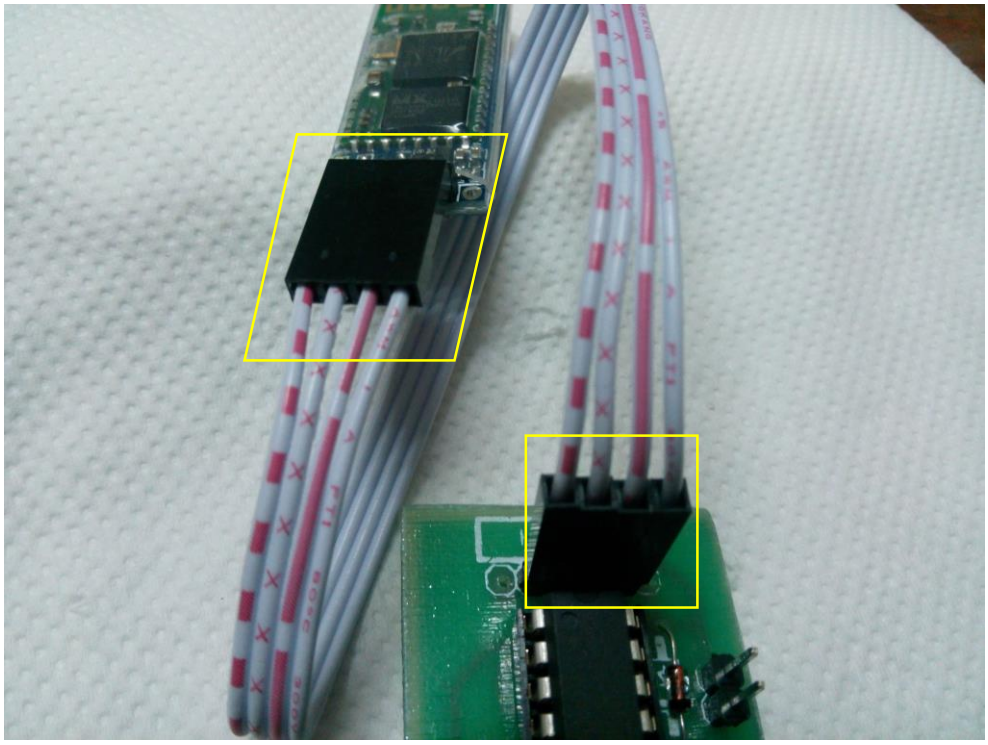
- Components required for assembly



- Placing of ATtiny-2313A microcontroller (/!\ Note orientation)



- Connecting HC06 module to board (note connections)



- Final Receiver Circuit