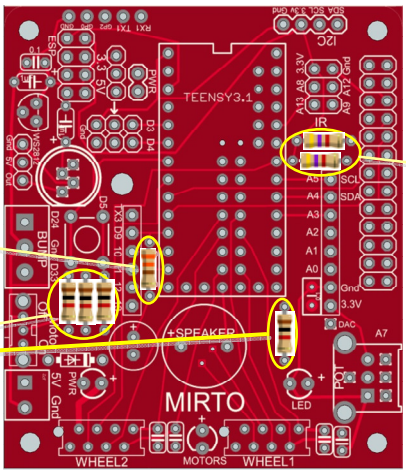
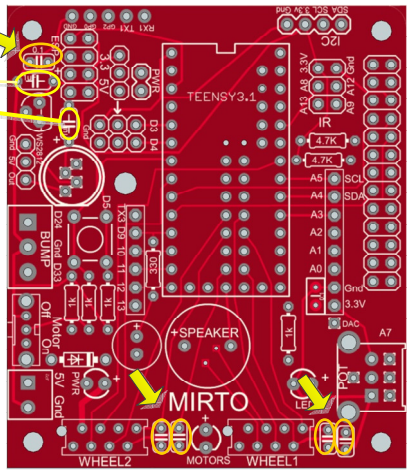
Mirto 2015 build notes

Solder the resistors.
There are four 1K
two 4.7K
and one 330 ohm resistor

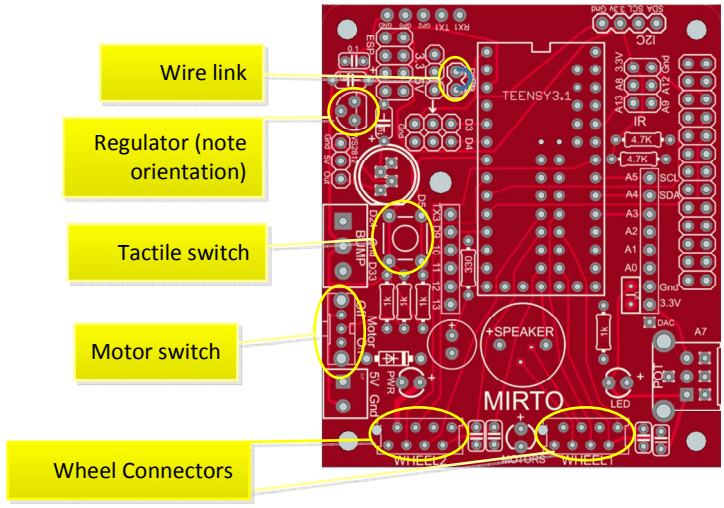




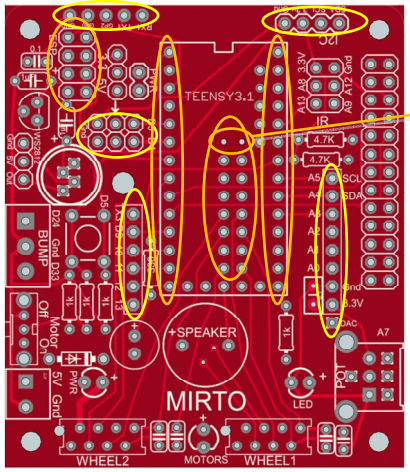
Solder the ceramic capacitors. There are five 0.1uF and two 1uF ceramic capacitors.

(Note there is one polarized capacitor that is soldered in a later step)

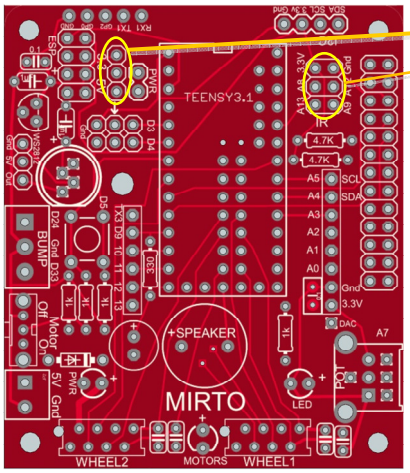
Solder
wheel connectors
switches
regulator
and wire link



Use jig to position and solder
These male and female headers

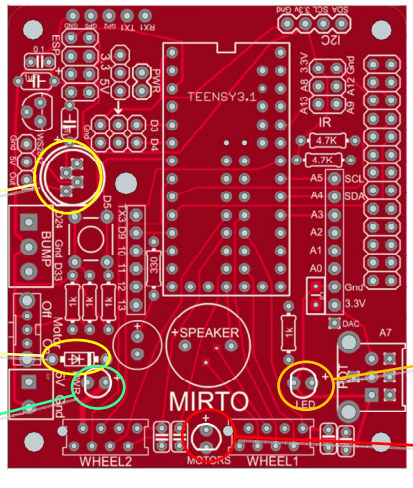


Solder two additional headers that are not located using the jig



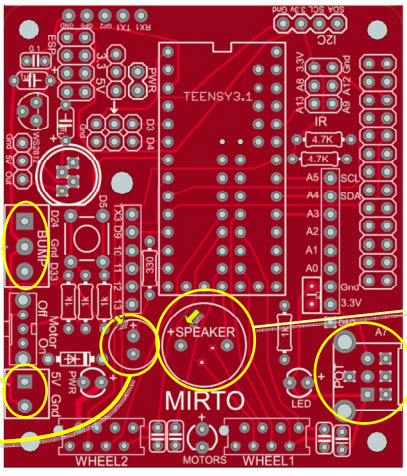
Solder the diode and LEDs
Double check anode locations before soldering
LED anode (longer lead) towards plus symbol.

Double check pinout of this LED as these may vary with different suppliers

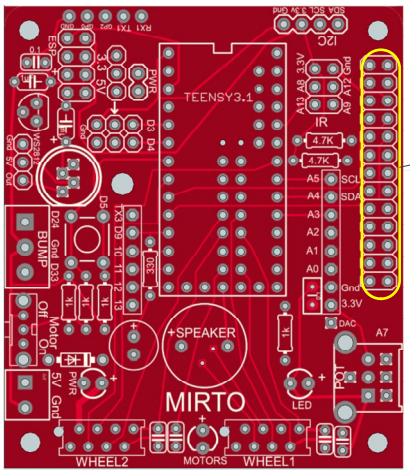


Solder screw terminals, speaker Pot and polarized capacitor.

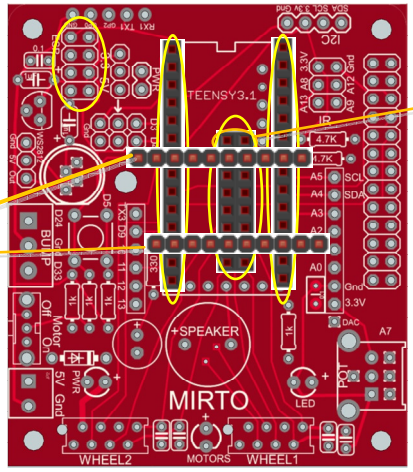
Double check you have the positive end towards the + symbol on the speaker and capacitor



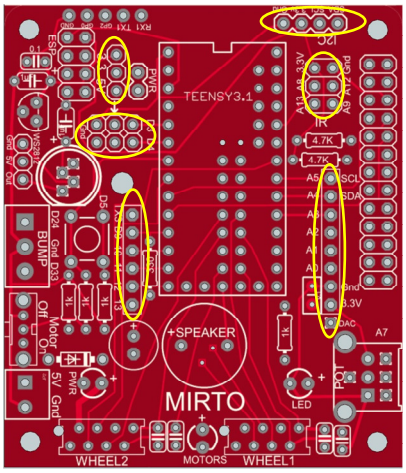
Solder Raspberry pi connector



Solder female header sockets



Solder male headers.



Functionality:

Uses 3.3v 32 bit Teensy 3.1 (96MHz, 256k flash, 64k RAM)

7 free digital pins (including two servo headers)

7 additional free pins that can be analog or digital

Servo headers 3.3v or 5v selectable

I2C header with pinout matching LCD

ESP8266 WiFI header

On-board potentiometer connected to analog pin

On-board pull-down switch connected to digital pin

5mm RGB neopixel with header for external strip

Speaker for use with Arduino tone library

Mounts using standoffs on new Raspberry PI (can also mount on old Raspberry Pi if necessary)