

Build instructions

Tip: use masking tape to keep components in place while soldering.

Resistors

1. Install 4x 4.7K (yellow-violet-red-gold) resistors;
2. Install 82 (grey-red-black-gold) resistor;
3. Install 10K (brown-black-orange-gold) resistor;
4. Install 100K (brown-black-yellow-gold) resistor;
5. Install 220 (red-red-brown-gold) resistor.

Capacitors

1. Install 2x 27pF (27J) capacitors;
2. Install 2x 0.1uF (104) capacitors;
3. Install 3x 10uF (106) capacitors.

Active components

1. Install Y1 (20Mhz) crystal;
2. Install U2 (MCP1700-3302E) voltage regulator, OBSERVE FLAT SIDE ORIENTATION!!!
3. Install BZ1 (Sobertone GT-0603A-2) buzzer, OBSERVE + POSITION!!!
4. Install LED, OBSERVE FLAT SIDE ORIENTATION!!! (or long leg going to the round pad);

Jumpers, headers and connectors

1. Install JP1, JP2, JP3, JP4 jumpers;
2. Install U1 DIP socket, OBSERVE THE NOTCH!!!;
3. Install J5, J6, J7 headers;
4. Install J1, J2, J3 connectors.

Final steps

1. Plug U1 (PIC32MX270F256B) in DIP socket, OBSERVE THE NOTCH!!!;
2. Connect at least one of JP1 (red), JP2 (green), JP3 (blue) jumpers for desired active pixel color;
3. Connect JP4 (USB power) jumper if using USB power instead of 5V power (J6);
4. Once the power, VGA screen and PS/2 keyboard are plugged use **Ctrl+Alt+Delete** to configure serial and other settings. The default serial speed is set to **115200** baud.