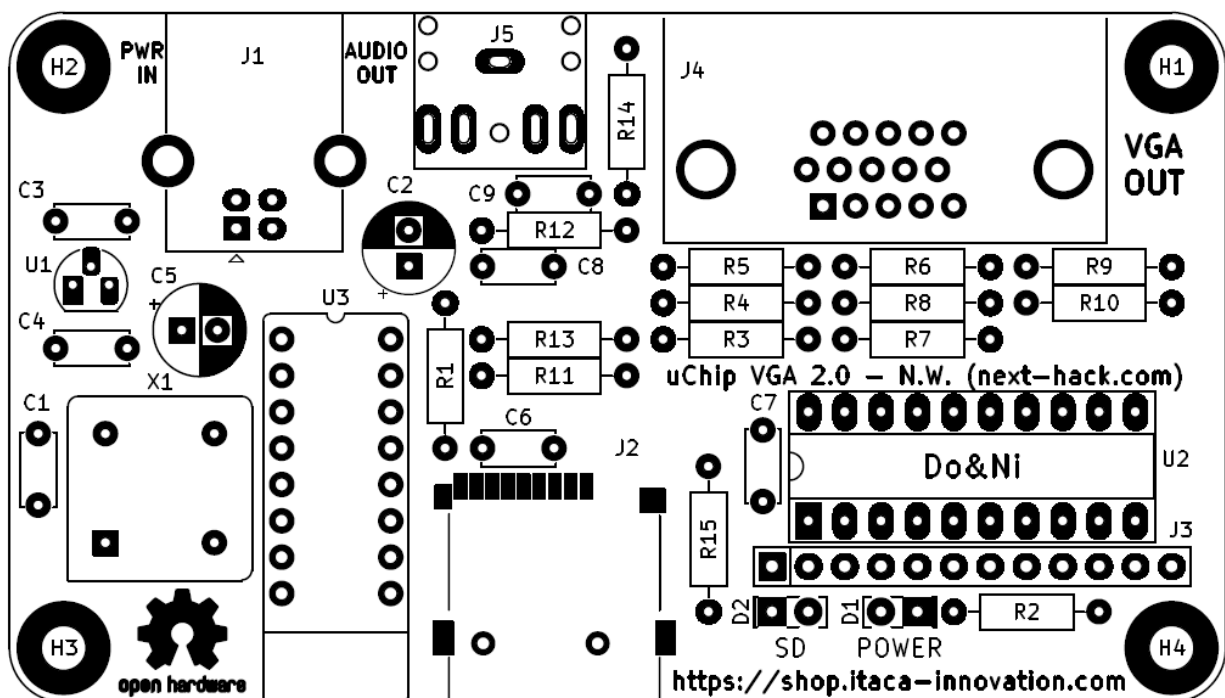




# קונסול simple VGA console

Thank you for choosing uChip Simple VGA console kit! For the complete guide and schematics, go to the download page of <https://shop.itaca-innovation.com>.

Below you will find the assembly drawing and bill of materials, with all the components listed in the suggested soldering order. Have fun!



## Bill of materials

Reference Designator	Value and notes
R1	Resistor 10k Ohm, 5% (brown, black, orange, gold)
R14	Resistor 10k Ohm, 5% (brown, black, orange, gold)
R4	Resistor 1k Ohm, 1% (brown, black, black, brown, brown)
R7	Resistor 1k Ohm, 1% (brown, black, black, brown, brown)
R12	Resistor 1k Ohm, 1% (brown, black, black, brown, brown)
R5	Resistor 2.2k Ohm, 1% (red, red, black, brown, brown)
R8	Resistor 2.2k Ohm, 1% (red, red, black, brown, brown)
R11	Resistor 22 Ohm, 5% (red, red, black, gold)
R13	Resistor 22 Ohm, 5% (red, red, black, gold)
R2	Resistor 390 Ohm, 1% (orange, white, black, black, brown)
R9	Resistor 390 Ohm, 1% (orange, white, black, black, brown)
R15	Resistor 390 Ohm, 1% (orange, white, black, black, brown)
R3	Resistor 470 Ohm, 1% (yellow, violet, black, black, brown)
R6	Resistor 470 Ohm, 1% (yellow, violet, black, black, brown)
R10	Resistor 820 Ohm, 1% (gray, red, black, black, brown)
U2 + socket	74AHC245. DO NOT SOLDER IT DIRECTLY. Solder the IC Socket first! Respect the correct orientation!
J5	3.5 mm Jack Audio Jack socket
C1	Capacitor, Ceramic, 1uF, 25V
C3	Capacitor, Ceramic, 1uF, 25V
C4	Capacitor, Ceramic, 1uF, 25V
C6	Capacitor, Ceramic, 1uF, 25V
C7	Capacitor, Ceramic, 1uF, 25V
C8	Capacitor, Ceramic, 1uF, 25V
X1	16 MHz crystal oscillator, 3.3V. Pay attention to the orientation!
C9	Capacitor, Polyester, 22 nF, 100V
C2	Capacitor, Electrolytic, 100uF, 25V. Respect the correct polarity!
C5	Capacitor, Electrolytic, 100uF, 25V. Respect the correct polarity!
U1	IC, 3.3V voltage regulator in TO92 package, MCP1700-3302E-TO or equivalent (part number varies depending on availability)
U3 (sockets)	2x 8-pin female headers.
D1	Yellow rectangular LED. Note that the cathode (shortest pin) is indicated by the square pad
D2	Red rectangular LED. Note that the cathode (shortest pin) is indicated by the square pad
J1	USB B connector
J4	VGA Connector
-	4 x Hex spacer
-	4 x screw with washer
-	PCB
J2	ALREADY SOLDERED, micro SD card socket.
J3	Expansion port header, NOT PROVIDED