

How to make a CW decoder using ARDUINO UNO

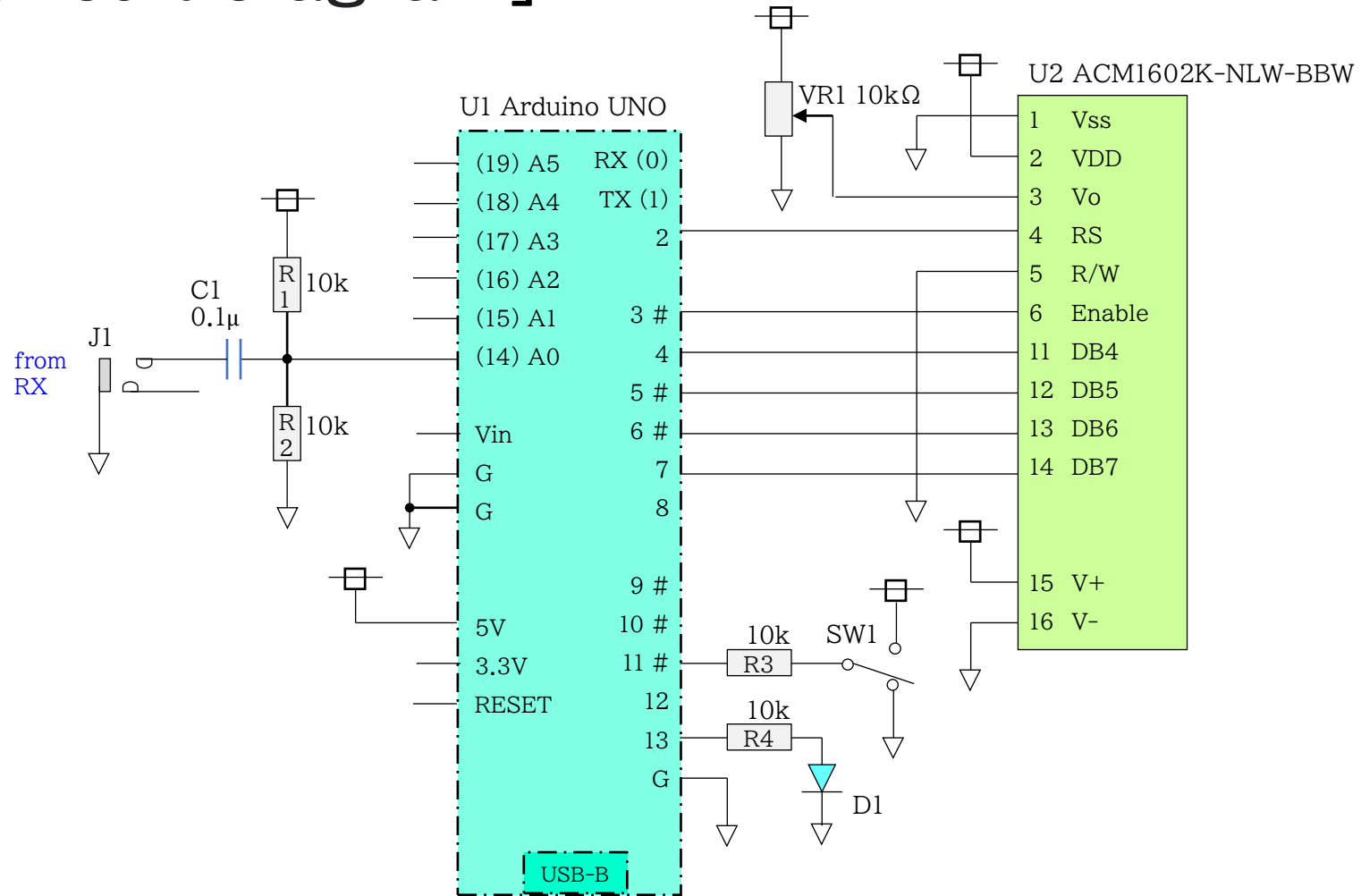


JA1IWP/JA5IUQ/N2UQ

[Basic functions / features, etc.]

- This is a study that a board computer beginner learned and prototyped during the "new corona nesting period"!
 - **CW decoder** for **European & Japanese** using **ARDUINO UNO**
 - Use **the slide switch** to switch between European and Japanese.
 - The display is 16 characters in 2 lines (can be easily changed to 20 characters in 4 lines (however, it becomes extremely large!))
- For H/W and S/W design, I referred to the Homepage of OZ1JHM.
TNX OZ1JHM Hjalmar OM !
- **The** decoding part of Japanese text is added in a self-styled manner
- Easy to assemble with a **cross wiring universal board** & the components side **jumper wiring** (no etching work required)
- Most of the parts can be purchased at Akizuki Denshi Tsusho (at Akihabara)

[circuit diagram]



[Parts List]

No.	name	type	quantity	Unit No.	Akiduki code	Yen
1	Computer	Arduino UNO Rev3	1	U1	M-07385	2,940
2	White character display	ACM1602K-NLW-BBW LCD module 16×2-lines white backlight	1	U2	P-10185	400
3	LED	3mm blue 470nm OSB5DL 3E34B	1	D1	I-12689	140/10
4	Switch	slide 2circuits-2contacts IS-2235	1	SW1	P-02627	100/4
5	Stereo mini jack	3.5mm for board mounting MJ-8435	1	J1	C-09060	50
6	Resistor variable	10kΩ 3362P	1	VR1	P-03277	40
7	resistor	Carbon 10kΩ (1/6W)	4	R1-4	R-16472	100/100
8	capacitor	Ceramic 0.1μF(50V)	1	C1	P-00090	100/10
9	IC socket	Round pin (single 40P)	1		P-01591	150
10	Pin header	1 × 40	1		C-00167	35
11	Pin header (thin type)	1 × 40 assort pack (10piece)	1		C-06641	350
12	Universal board	For Arduino glass composite	1		P-06877	180
13	Universal board	Cross wiring type-B(95x72mm) glass composite	1		P-09794	200
14	Clear plastic case		1		(Amazon)	990
15	Stereo mini plug cable	3.5mm, length: 0.5m	1		P-13082	120

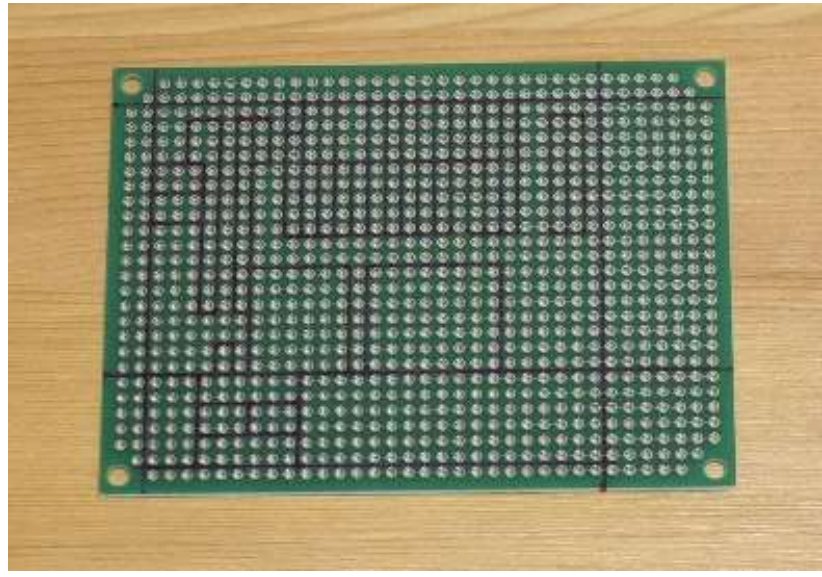
[Board cut, pattern cut diagram]



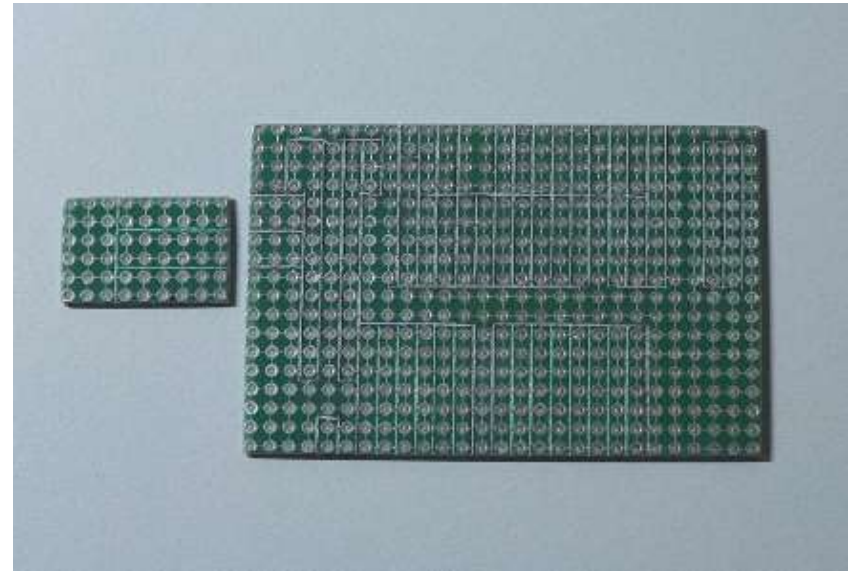
[Parts layout, wiring diagram]



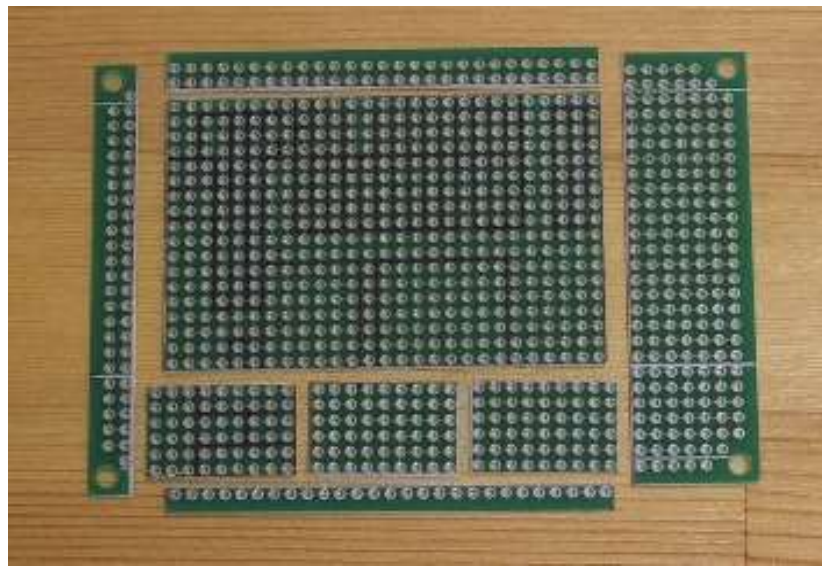
[Board cut, pattern cut draft]



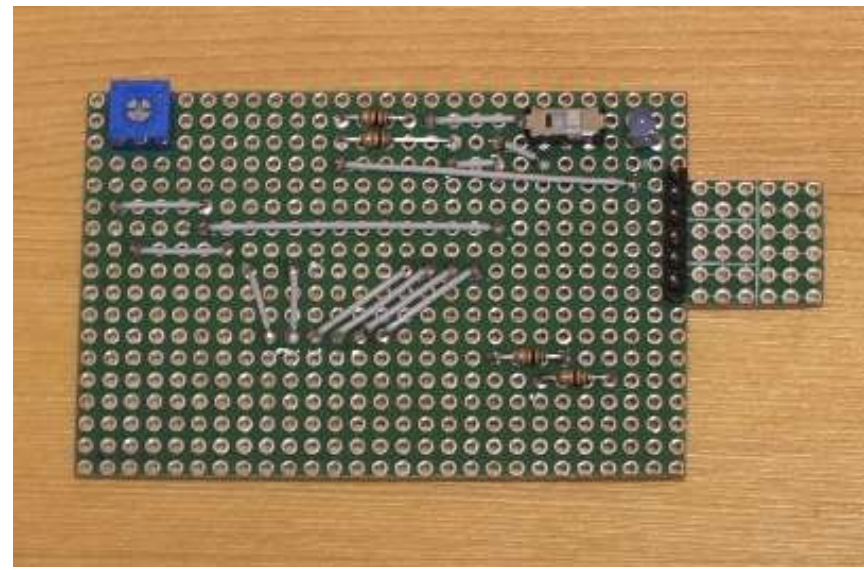
[Board cut, pattern cut]



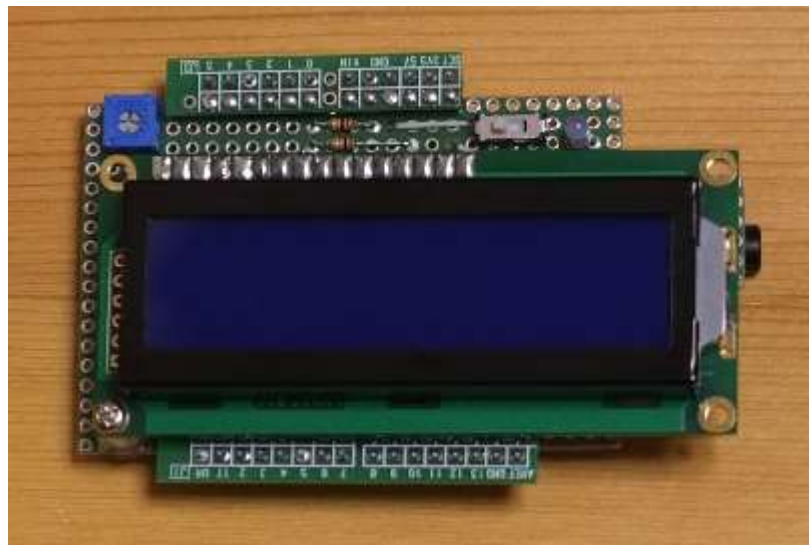
[Jumper wiring(Component side)]



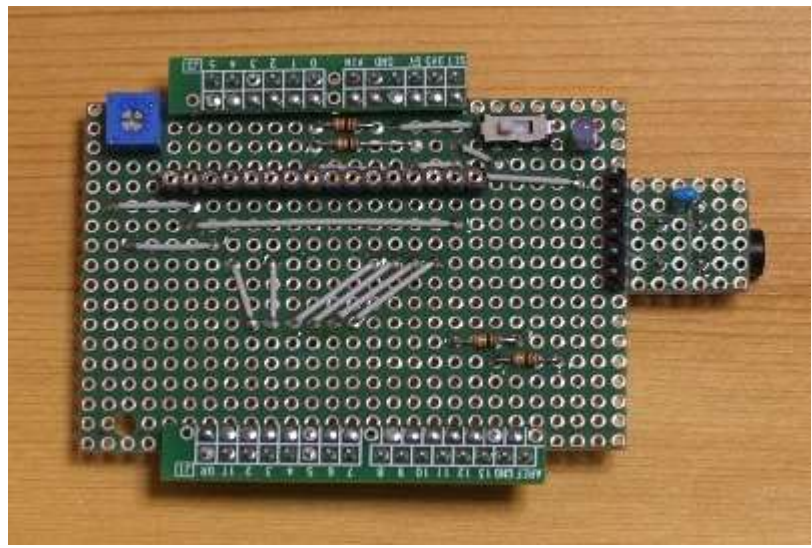
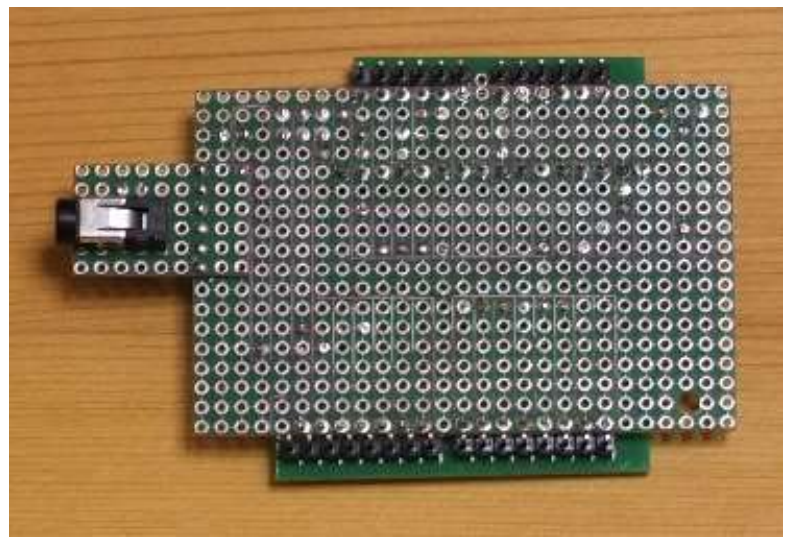
[Pin header mounting(Solder side)]



[Complete(Component side)]



[Complete(Solder side)]



[With an Arduino memory keyer]

