MIOS supports internally **Hitachi HD44780** compatible character displays

It's 'so called' industry standard for the character displays, but not all “standard” displays have this particular chip.

HD44780 compatible LCD controllers:

| **Controller:** | **Manufacturer:** |
|---|---|
| HD44780 | Hitachi |
| KS0066 | Samsung |
| KS0076 | Samsung |
| KS0070 | Samsung |
| S6A0069 | Samsung |
| LC7985NA | Sanyo |
| SED1278 | Epson |
| NT3881D | Novatek |
| SPLC780 | Sunplus |
| MSM6222 | OKI |
| NJU6408B | NJR |
| NJU6468 | NJR |
| NJU6470 | NJR |
| Probably: | |
| UM3881B [1)] | UMC |
| T7934 [2)] | Toshiba |

If your LCD has one of these chips, there are good changes to get it work. These chips have similar instruction set, data bus and timings are like original HD44780 (or faster, which shouldn't matter)

BUT this only means controller chip is compatible with driver designed for HD44780

It's simply easier to get a display, that has a datasheet available.

Common problems, *if it isn't your soldering*:

- **First**: There is no common standard for the display connector - You should get your LCDs **datasheet** to see the correct pinout.
- **Second**: Your display may need negative contrast voltage. [3)]
- **Third**: Backlight not working? Maybe it's Electroluminescent (EL) type. [4)]

And it's also good to know at least HD44780 displays can be initially programmed to different character sets - maybe your dirt cheap surplus display just talks greek to you 😬

More: MBHP LCD module page at uCApps.de

1)
I haven't found any reports about this chip
2)
instruction set compatible, has extra characters in CG ROM, it shouldn't matter

3)

Watch out for $V_{ee}$ pin. (Usually found in 'extended temperature range' displays)

4)

might need 'so called' inverter circuit to drive backlight

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