

# Main Board view

This is a graphical pinout for the main board.

All connectors that have a specific polarity are marked with colours or connector shape/orientation, please be careful when plugging things into the mainboard, especially VCC.

Worthy of note:

- Arduino runs the machine and can technically make a coffee by itself once the "make" command is received. ESP8266 drives the display and takes input from buttons and HTTP. The ESP8266 can be updated via WiFi by sending a compiled \*.bin file
- Arduino sensor pins were built as high when closed (resistors are soldered on the board under arduino); ESP uses internal pull-ups.
- The two boards use hardware serial to communicate. It is not possible to flash either via USB without first unplugging them from the board.
- 16 x 2 LCD should be driven at 5V. A hack was devised to drive it from 3.3V ESP pins without level shifters (see LCD cable pinout).

