

***This board is handmade: except for the cost of components, every cent will be reinvested to improve the FabGL library, applications and to produce even better boards.***

This board comes preprogrammed with the Ansi Terminal application. It can be used as TTL UART terminal or RS232 terminal.  
You may need a NULL-Modem cable or adapter to use this board as classic computer terminal.

In case you need to reprogram the board (external programmer required) follow these steps:

1) Install the current upstream Arduino IDE at the 1.8 level or later. The current version is at the [arduino.cc](http://arduino.cc) website.

2) Start Arduino and open the **Preferences** window.

3) Into **Additional Board Manager URLs** field enter:

"[https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package\\_esp32\\_index.json](https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_index.json)"

4) Open Boards Manager from **Tools > Boards Manager...** menu and install **esp32** platform

5) From **Tools** menu select the board "**ESP32 Dev Module**". In the board menu, set following parameters:

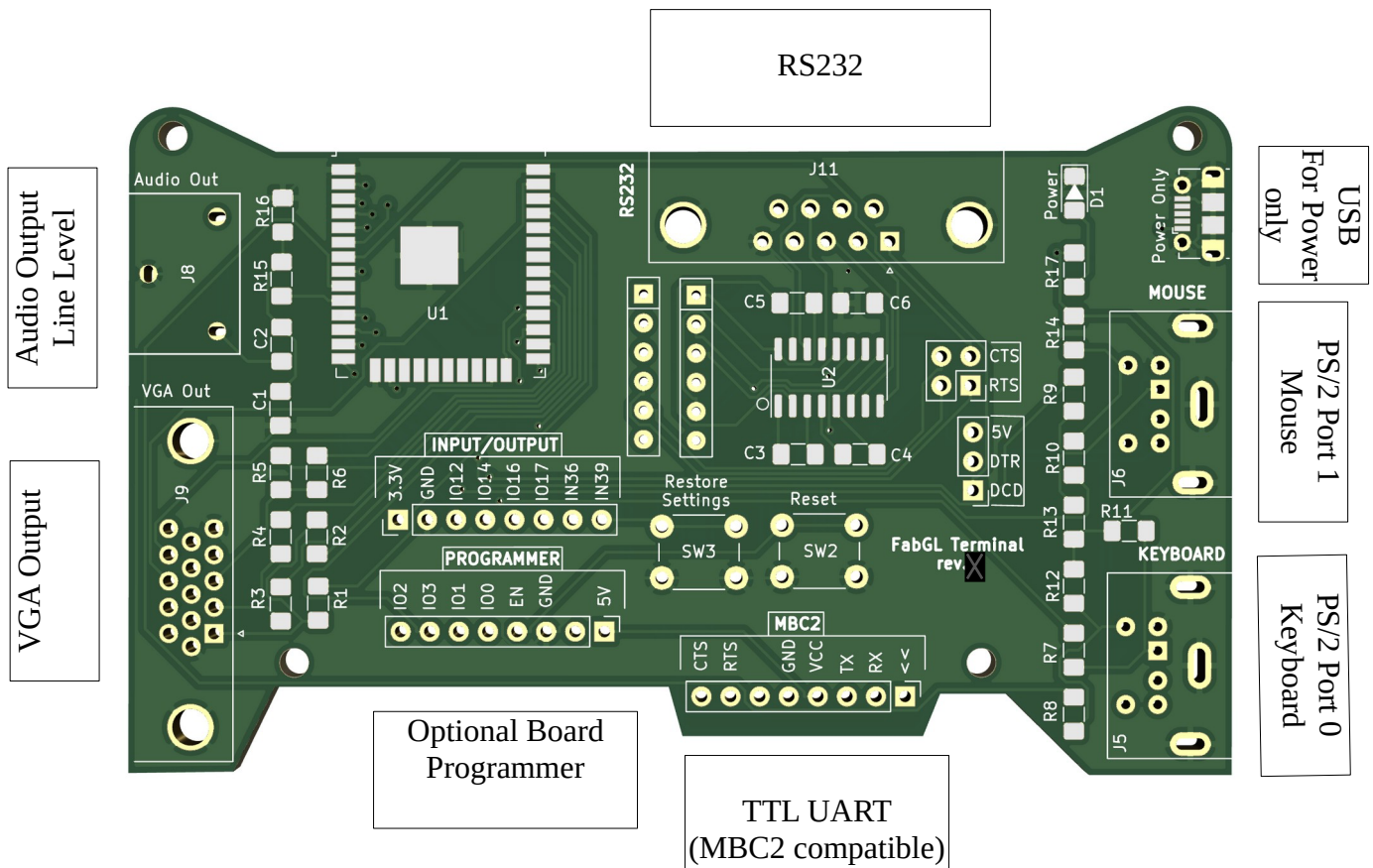
- Upload speed: **460800**
- Partition Scheme: **Huge App**

6) Open **Tools > Manage Libraries** menu and install **fabgl** library.

7) Restart Arduino IDE.

8) Open **File > Examples > FabGL** menu to select one of the FabGL examples.

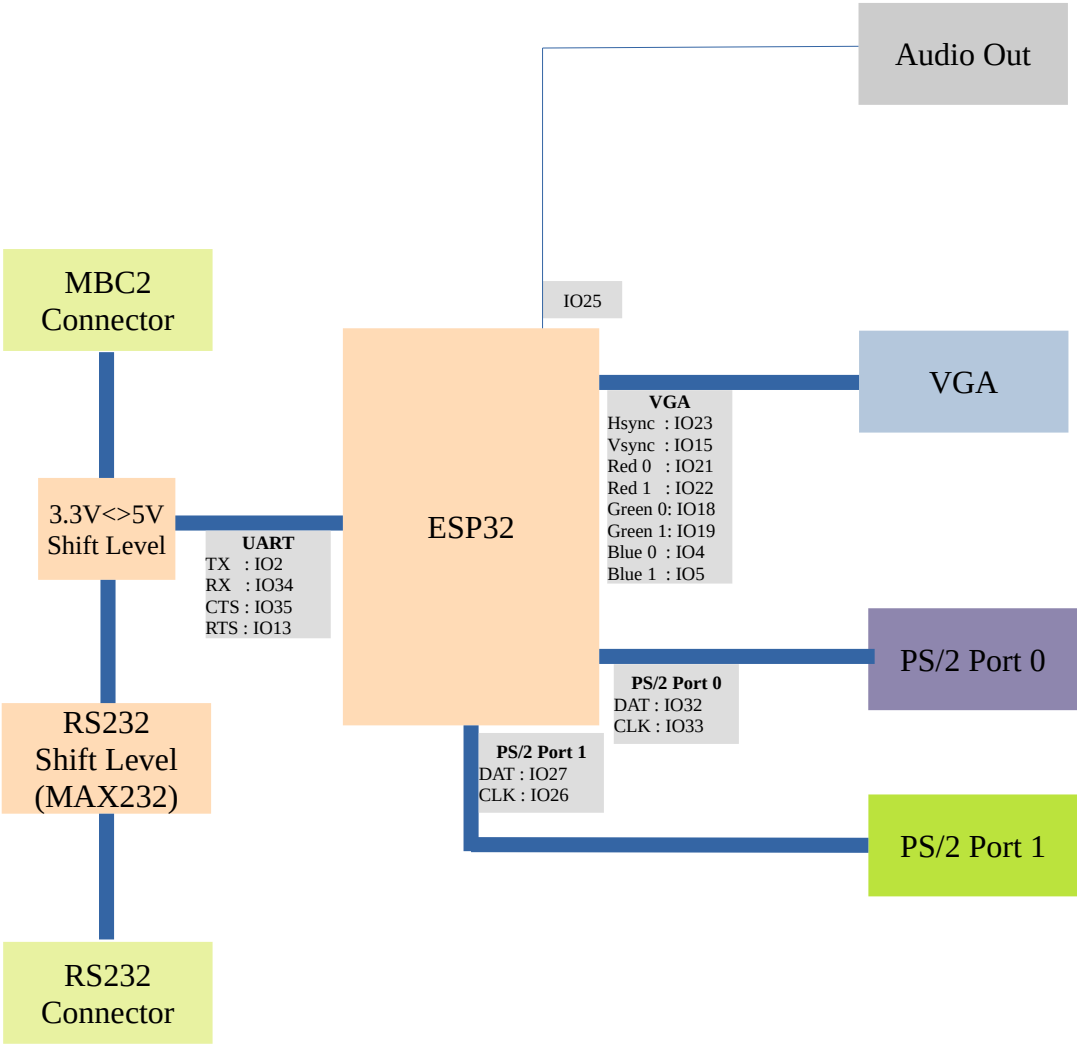
## The Board



### Notes:

- RS232 and TTL UART share the same communication channel, so just one at the time can be used
- to reset the Terminal settings, keep pressed "Restore Settings" while powering on the board
- USB on the board is just for Power, not for programming
- when a programmer board is inserted, disconnect any USB cable connected to the board
- RS232 implements following signals: TX, RX, CTS, RTS.
- DTR is directly connected to DCD. However it can be connected to 5V changing the related jumper.

# Block Diagram and GPIO Assignments



## References

- Library Source Code: [\*\*https://github.com/fdivitto/FabGL\*\*](https://github.com/fdivitto/FabGL)
- Library Documentation: [\*\*http://www.fabgl.com\*\*](http://www.fabgl.com)
- YouTube Channel: [\*\*https://www.youtube.com/c/fdivitto/videos\*\*](https://www.youtube.com/c/fdivitto/videos)

