

1 Introduction

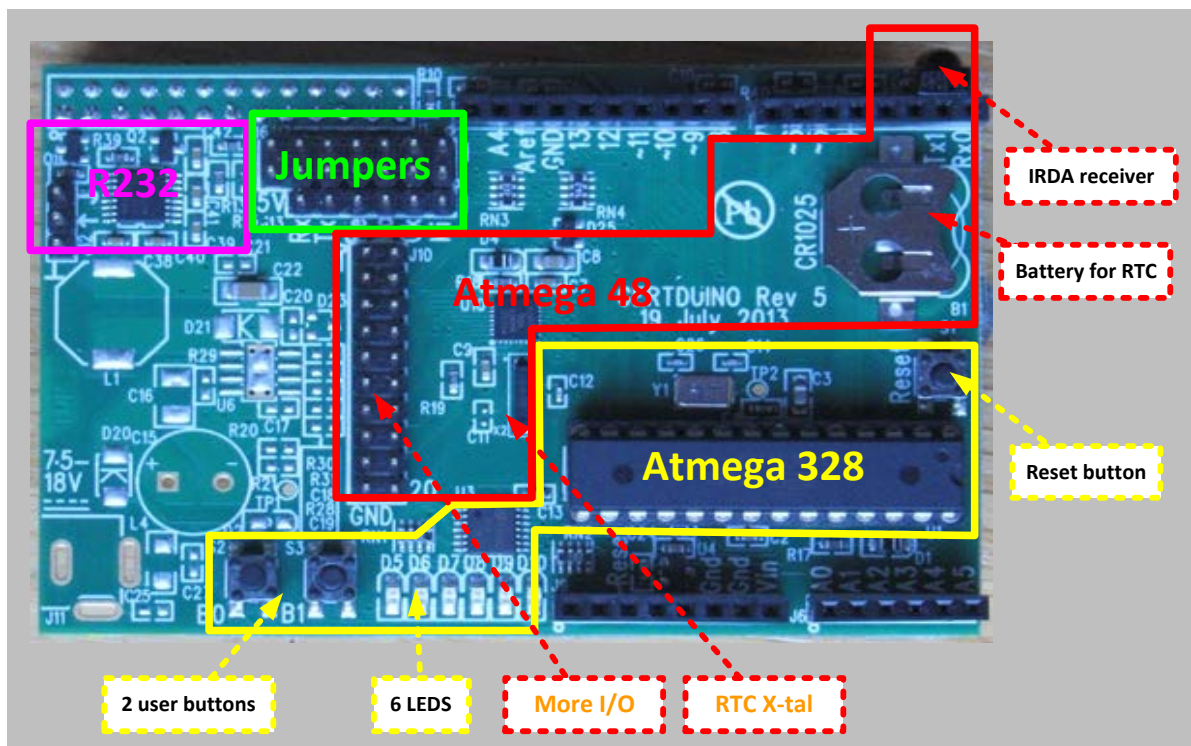
The GertDuino is a Raspberry-Pi add-on board which offers the same functionality as an Arduino-Uno but with some extra added features.

1.1 Identify

The picture below lets you identify the various functions on the board.

- RS232 level converter can be used by:
 - Raspberry-Pi
 - or Atmega-328
 - or Atmega-48
- Atmega 328 (Arduino-Uno® compatible) with:
 - Arduino-Uno® compatible connectors
 - Reset button
 - 2 user push buttons
 - 6 LEDs.
- Atmega 48 with:
 - I/O connector with 20 pins.
 - High precision RTC crystal
 - Battery backup power supply
 - IRDA interface

PCB Overview:



1: GertDuino Functions

1.2 Comparison

There are some differences between a normal Arduino-Uno and the GertDuino.

Function	Arduino-Uno	GertDuino
USB	Slave interface	-
Reset button	Yes	Yes
Power supply	9 to 12V, ~250mA	<5V Raspberry-Pi>
3V3 supply	~50mA	~150mA.
LED's	One Not-buffered	Six Buffered
User pushbuttons	-	Two
RS232 buffer	-	Yes
Real-Time-Clock	-	Yes
Infra-red interface	-	Yes

Table 1: Comparison GertDuino vs Arduino-Uno

1.3 Vext

As the board does not have a separate supply the Vext is not connected. If you want it connected you have to add the following components:

J1, L4 (or a short instead of L4), D20 (or a short instead of D20).

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