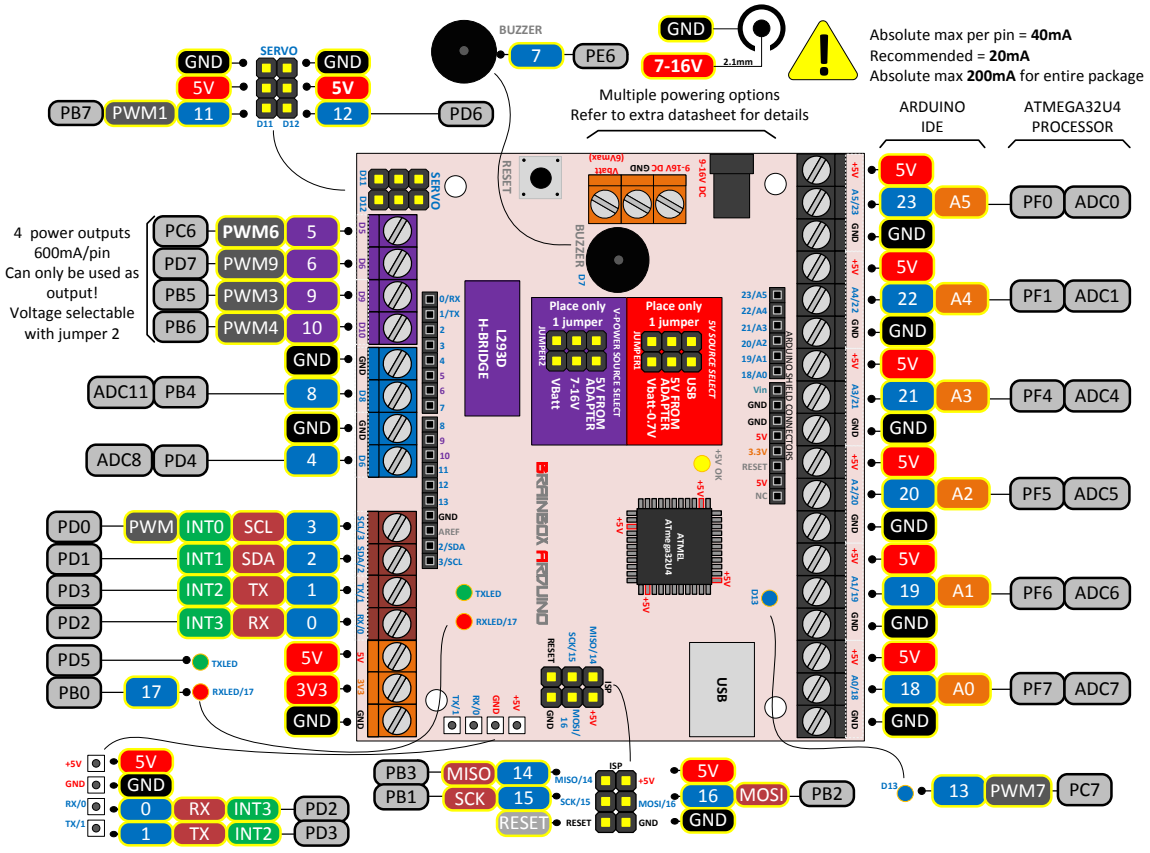
O-600 – DRIVING LOADS UP TO 600MA



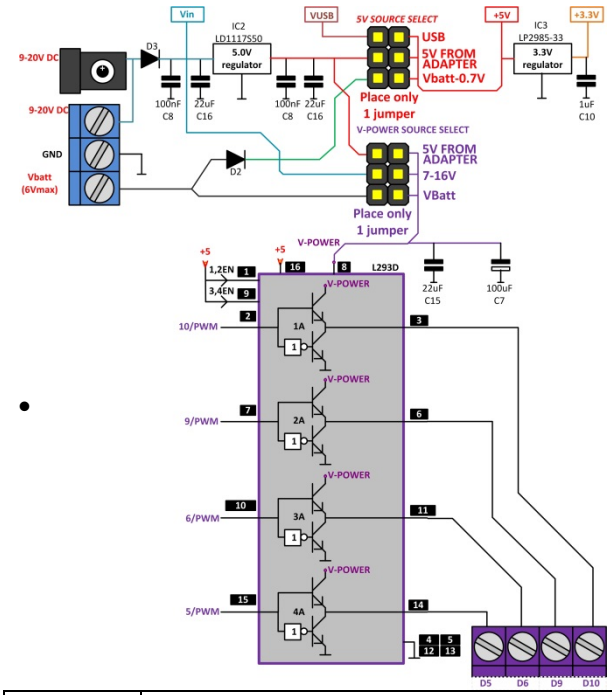
All 4 pins marked with this “ ” -symbol can be used as digital output for currents up to 600mA.

Be aware that Arduino IDE uses an inconvenient way of naming the pins. The Arduino pin name is displayed in the -symbol.

Flowcode and all the other programming languages use the official pin names. These official pin names are displayed in the gray rectangles:

General knowledge about the H-bridge:

Brainbox L293D H-Bridge:



- The L293D IC can be used as a double H-bridge or as 4 separate high current output pins.
- With this IC the power of four 20mA output pins is boosted up to 600mA/pin.
- These 4 boosted output pins (D5, D6, D9, D10) are available at a 4-pin screw connector.
- The working voltage of the L293D can be selected by placing the jumper at 'V-POWER source select'. In Theory the L293 can operate from 4.5 to 36Volt.

Jmpr pos	Voltage L293D
5V from adapter	The 4 outputs now switch between 0V and 5V. The 5V is delivered by the adapter – not by USB. The maximum current that the 5.0V regulator can have is 1A, but it will go into temperature protection mode if it heats up over 160°C. It is recommended to limit the current to 500mA in total in this mode.
7-16V	The power is now taken from the circuit between the diode and the 5.0V voltage regulator. The outputs of the L293D will now switch between 0V and the voltage that the adapter delivers (minus the 0.7V over the protection diode). Feel free to draw up to 600mA/pin in this mode if your adapter can handle this.
VBatt	This mode is developed to power the whole Brainbox from 4xAA battery or one 6V lead battery. The 4 power output pins will now switch between 0V and 6V. The maximum current is 4x600mA. You could use this mode for robotics and RC cars.