Using the controller as an Arduino board :

The DAGU mini driver is software compatible with an Arduino NG. It has been designed specifically for robotics so it has a few extra features.

Up to 8 servos can be connected directly to the PCB by changing the +V selector from 5V to Bat. This allows the servos to be powered directly from the battery as the 5V regulator is only capable of powering 1 miniature servo under a light load.

Analog pins A0-A5 have 5V and Gnd pins available for powering 5V sensors. As the SMD chip has extra pins there are 2 exta analog inputs. A6 is not used although it can be accessed by a solder pad under the PCB. A7 is configured to monitor battery voltage. The maximum allowable battery voltage is 9V.

The dual "H" bridge is capable of driving 2 motors, each with a stall current of 2A or 1 stepper motor with a maximum of 2A per winding.

If you do not wish to use the motor driver then you can remove the jumpers on D7, D8, D9 and D10. You can then use these pins for alternate purposes.

There is a 4 pin female header on the PCB that is intended for use with a wireless transceiver such as an Xbee or Bluetooth module. You can access D0 and D1 (Rx and Tx) directly from this header.

The ISP socket is the same as a standard Arduino board and can be used to re-burn the bootloader. Newer versions of the Arduino IDE will allow you to program the board directly from this socket. Note that there is a small white arrowhead next to pin 1.
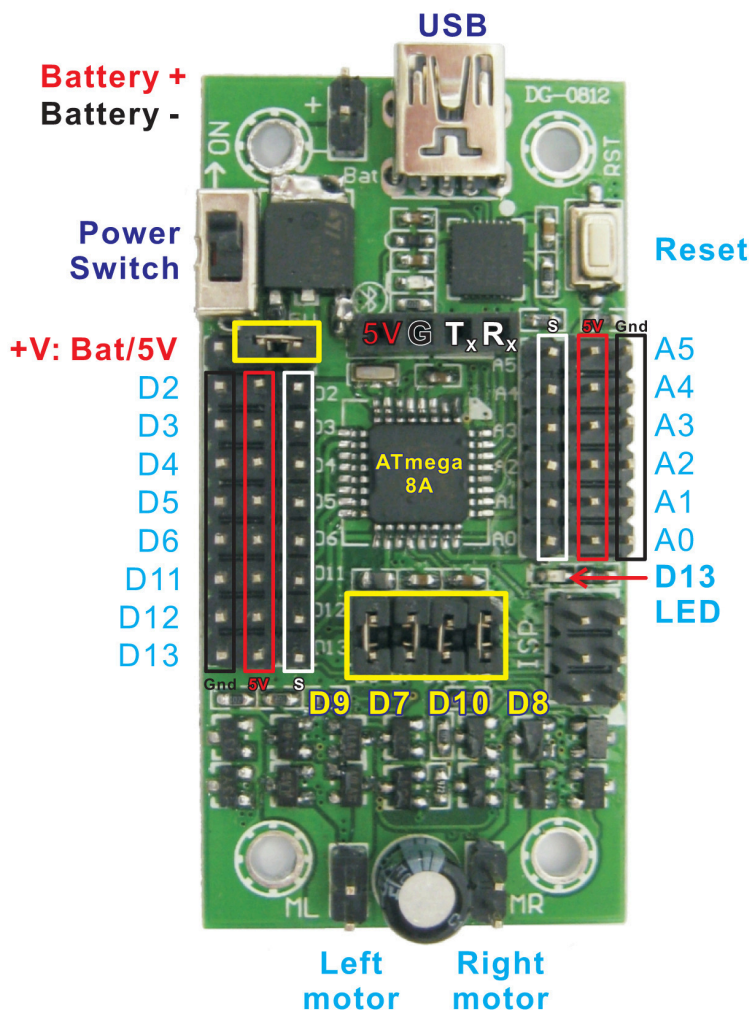
Specifications :

Controller:	
Processor:	ATmega8A
Clock speed:	16MHz
FLASH:	8K
SRAM:	1K
EEPROM:	512 bytes
USB interface:	CP2102
Supply voltage:	5V - 9V
Regulator:	1A max.
Dual "H" bridge:	2A per motor

Output devices:		
Servo voltage:	4V - 6V	
Servo torque:	2Kg/cm	6V
Servo speed:	0.08 sec/60°	6V
Servo weight:	12g	
Motor voltage:	6V	
Gearbox torque:	2Kg/cm max.	
Speed:	125RPM ±10%	6V
Weight:	9g	