



### Features:

- Atmel ATMEGA 328P microcontroller, 16 Mhz
- 5V primary power via ATX-Molex input, or USB (optional via JP3 jumper), or external 5V in
- L298 H-bridge motor controller
- Motor rotational encoder input (quadrature optional, requires R2A resistor)
- Maximum Integrated MAX21000 high-accuracy 3 axis gyro with temperature sensor
- CP2104 USB-UART bridge
- Mini-B USB female input
- Audio amplifier TPA2005 class-D mono
- 3.5mm audio input
- +/- speaker output
- 3x high-intensity LED output PWM control
- Firmware can be uploaded via Arduino IDE
- Overall size: 99mm x 51mm [3.9in x 2.0in]
- RoHS compliant

### Power Requirements:

- 5V power required for microcontroller, other component logic, LEDs, audio, motor encoder
- Use +5V screw terminal input, or MOLEX connector (obtain 5V regulated power from host PC), or USB input
- USB 5V input ships disconnected, requires JP3 jumper (not diode protected). USB 5V from host PC typically 500mV max, auxiliary 5V external power recommended if using high power LEDs and/or audio
- Motors: separate +V power required via "+Vin" terminal. 46V max, 3A continuous, 5A peak

See following page for connector description diagram

Schematic and example firmware code available for download at:  
[www.xaxxon.com/xaxxon/malg](http://www.xaxxon.com/xaxxon/malg)



**Xaxxon MALG PCB  
Board Connector Description**

