

Microcontroller Board Details:

|                   |                       |
|-------------------|-----------------------|
| MCU Manufacturer  | Microchip Technology  |
| MCU               | ATMega328P            |
| Operating Voltage | 5V                    |
| Clock Rate        | 16 Mhz                |
| Computing Speed   | 16 MIPS               |
| Flash Memory      | 32 KBytes             |
| SRAM              | 2 KBytes              |
| EEPROM            | 1 KBytes              |
| Digital I/O Pins  | 20                    |
| Analog Input Pins | 8                     |
| PWM Output Pins   | 6                     |
| Has DAC           | No                    |
| UART Interface    | 1                     |
| SPI Interface     | 1                     |
| I2C Interface     | 1                     |
| USB to Serial     | Upto 115200 baud rate |

MCU Power Ratings:

|                                      |                   |
|--------------------------------------|-------------------|
| Absolute Max. Current per I/O pin    | 40 mA             |
| Recommended Max. Current per I/O pin | 20 mA             |
| Absolute Max. Total MCU Current      | 100 mA            |
| Recommended Max. Total MCU Current   | 60 mA             |
| Max. VCC Voltage                     | 6V                |
| I/O Pin Voltage                      | -0.5V to VCC+0.5V |

Power Supply Ratings:

|                               |                        |
|-------------------------------|------------------------|
| Power Input                   | microUSB or DC Jack*   |
| Recommended Power Input       | microUSB               |
| Dual Power Preference         | DC Jack                |
| Min. Running Current          | 22 mA (via DC Jack)    |
| Absolute Max DC Jack Voltage  | 18V                    |
| Recommended DC Adapter        | 7-12V SMPS DC Adapter* |
| 5V Max Current on 12V DC Jack | 120mA (stable at 80°C) |
| 5V Max Current on 9V DC Jack  | 210mA (stable at 80°C) |

\* Not Recommended for NOOBS, refer to guideline

\* Avoid Transformer DC Adapter as Output Voltage Fluctuates