

# 3D Printer Parts Pricelist

**Note: \*all units in PHP\* (Philippine Peso)**

**For any inquiries, please email: [skipmontinola@gmail.com](mailto:skipmontinola@gmail.com)**

## **MICROCONTROLLER**

**RAMPS shield- Price : P2,500.00**

### **Features:**

- It has provisions for the cartesian robot and extruder.
- Expandable to control other accessories.
- 3 mosfets for heater / fan outputs and 3 thermistor circuits.
- Fused at 5A for additional safety and component protection
- Heated bed control with additional 11A fuse
- Fits 5 Pololu stepper driver board
- Pololu boards are on pin header sockets so they can be replaced easily or removed for use in future designs.
- I2C and SPI pins left available for future expansion.
- All the Mosfets are hooked into PWM pins for versatility.
- Servo style connectors are used to connect to the endstops, motors, and leds. These connectors are gold plated, rated for 3A, very compact, and globally available.
- SD Card add on available -- Available now made by Kliment - Sdramps
- LEDs indicate when heater outputs on
- Option to connect 2 motors to Z for Prusa Mendel



**5x a4988- P3000.00**

### **Features:**

- Short-to-ground and shorted-load protection
- Adjustable current control
- Intelligent chopping control
- Over-temperature thermal shutdown
- Under-voltage lockout
- Crossover-current protection
- Simple step and direction control interface
- Full-step, Half-step, Quarter-step, Eighth-step, and Sixteenth-step



### **Azteeg(no stepper driver) - P4,000.00**

#### **Features:**

- Atmel ATmega 644P with FT232RL FTDI USB chip
- Compatible with Sprinter, Marlin, Repetier, others.
- High current capacity connectors and PCB traces.
- Mosfet control for 1 extruder and 1 hotbed
- Extra PWM control for small fan or LEDs
- 3 end stops and 2 thermistor inputs
- 12-30v input high efficiency switching Power supply @ 500ma max
- Dedicated uSD card female header [SDRAMPS compatible]
- Low RDSon Mosfets for less heat buildup
- Input power selector for micro controller [USB or internal regulator]
- Secondary power input for stepper motors.
- Optional pads for TVS spike suppression diodes for the Mosfets
- Mosfet Heatsinks included
- i2C, Tx1 serial, +5, GND, SPI and ADC pins on the expansion ports
- Fast acting blade fuse
- Both right angle and vertical connector sets included
- Lots of LEDs, PWR, hot end and hot bed



### **Brainwave- P6,000.00**

#### **Features:**

- Small footprint: only 60mm x 79mm!
- 12V power input
- Fan control
- Micro USB connector
- Dual Z-axis connectors
- All connectors at edge of board, vertical or right-angle connectors will fit.
- Atmel AT90USB646 microcontroller w/ USB bootloader
- 1, 2, 16 or 32x microstepping @ up to 800mA
- Optional per channel current attenuation
- Heated bed support with separate power input (up to 24V @ 15A)
- Integrated heater/thermistor/stepper connector for E channel



### **Gen 6-P5,000.00**

#### **Specifications:**

Dimensions 110x60mm

Mounting grid: 100x50mm (4x M3)

Input voltage 12-24Vdc

On-board controller: ATmega 644p (Atmel Corp.)

RS485 connector: RJ45

Heat output: MOSFET output, 4A

Thermistors input: 100K thermistor



### **RAMPS set(mega 2560,RAMPS 1.4 shield,5 a4988 stepper driver- P6,000.00**

#### **Package list:**

1x Iduino Mega 2560  
1x Assembled RAMPS 1.4 extend Shield  
5x A4988 driver



### **Mega Ultimaker shield(no stepper driver)- P5,000.00**

#### **Features:**

- Plug in all motors with simple 4-way JST connectors.
- Controls up to 5 stepper motors (3 for the X, Y and Z axis one for an extruder (the "E axis"), optionally you can add another axis by adding a Pololu stepper driver.
- Configurable step sizes by placing jumpers
- 3x 55 Amp MOSFETs outputs (with LED indicators. Actual current capability limited by PCB and connectors)
- All pins are broken out for maximum extensibility
- Runs from 15V to 19V.
- Three thermocouple inputs, or thermistor inputs. The 100K thermistor is recommended.
- A toggle-switch for powering up/down the board
- Easier to wire up thermocouples
- Includes a 12V regulator for an (always on) fan to cool the electronics.
- LCD backlight dimming can now be software controlled



### **Melzi ardentissimo- P7,000.00**

#### **Features:**

- This is a complete electronics control board for RepRap 3D Printers
- The main chip is ATMEGA644P
- Stepper Motor Driver integrated chips is A4988
- Gen7 Arduino IDE Support Installation
- Gen7 Arduino IDE Support Bootloader Upload
- Integrated micro SD card socket



### Printboard- P5,000.00

#### Features:

- Atmel AT90USB1286 Microcontroller (or AT90USB1287 drop-in compatible for 20mhz support)
  - Native USB interface. No FTDI serial-to-USB chip!
  - 128kb Flash
- Four integrated Allegro A4982 Stepper Drivers (no Pololus needed)
- Onboard SD card slot
- Edge connectors enabling right-angle connections



### Teensylu (no stepper driver)- P4,500.00

#### Features:

- The board is small, only 100mm x 60mm (4" x 2.4")
- Teensylu clone, Atmel's AT90USB1286 - AT90USB1287 drop-in compatible for 20mhz support
- LUFA CDC bootloader preinstalled on the AT90USB1286 allows you to upload the firmware in the Arduino IDE through USB cable.
- Up to 4 Pololu stepper driver boards (or Pololu compatible) on-board (X,Y,Z,Extruder) (without voltage regulator)
- 2 thermistor connectors with circuitry
- 2 N-MOSFETs for extruder/bed heaters
- 1 N-MOSFET for low power fan or motor
- Additional 14 pin header with 11 I/O for prototyping
- SMT Components sized at 0805 for easier soldering.
- Edge connectors enabling right-angle connections
- Silkscreen for connectors on both sides of the board, facilitating bottom cable connections
- 14 Extra pins available for expansion and development - 6 analog and 8 digital (Fully compatible with Sanguinololu), with the following capabilities
  - UART1 (RX and TX)
  - I2C (SDA and SCL)
  - SPI (MOSI, MISO, SCK)
  - PWM pin (1)
  - Analog I/O (6)
- Supports multiple power configurations (Carried from Sanguinololu)
  - Logic & Motors supplied by ATX power supply (needs molex harddrive connector, and optional 4pin atx connector for additional 12v)
- Selectable 12v/5v endstop voltage
  - 4 endstops including 4th stop called E-Stop to be used as an emergency stop, or extruder stop (to be added in firmware).
  - Motors supplied by 5mm screw terminal 7-35V
  - Logic supplied by USB bus
  - Logic supplied by optional on-board voltage regulator (molex harddrive connector cannot be installed at the same time)
  - On-board USB connectivity



#### Compatible Firmwares

- Sprinter Sprinter
- Marlin Marlin
- Repetier List\_of\_Firmware#Repetier-Firmware Supported, use MOTHERBOARD == 8.
- grbl List\_of\_Firmware#Grbl: No official support yet, but works with Lincomatic's fork.
- (Other firmwares are currently untested but any firmware for an arduino mega should work with proper pin setup.)

#### **Sanguinololu rev 1.3a(no stepper driver)- P4,500.00**

##### **Sanguinololu+4 A4988- P5,500.00**



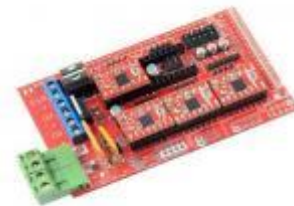
#### Features:

- 1.Supports multiple communication configurations --2 thermistor connectors with circuitry --2 N-MOSFETs for extruder/bed, or whatever --Selectable 12v(or supply voltage)/5v endstop voltage --Edge connectors enabling right-angle connections --13 Extra pins available for expansion and development - 6 analog and 8 digital, with the following capabilities, and SD CARD SUPPORT
- Supports multiple power configurations -- Logic & Motors supplied by ATX power supply (needs molex harddrive connector, and optional 4pin atx connector for additional 12v/supply voltage) -- Logic supplied by USB bus ,optional on-board voltage regulator (molex harddrive connector cannot be installed at the same time) -- Motors supplied by 5mm screw terminal 7-35V 3.Small design - board is 100mm x 50mm (4" x 2") - barely an inch longer than a business card!
- 4.Sanguino clone, Atmel's ATmega644P - ATmega1284 drop-in compatible!! 5.UART1 (RX and TX) 6. I2C (SDA and SCL) 7.SPI (MOSI, MISO, SCK) 8. PWM pin (1) 9.Analog I/O (5)

#### **RAMP shield+4 a4988 stepper driver- P4,500.00**

#### Features:

- It has provisions for the cartesian robot and extruder.
- Expandable to control other accessories.
- 3 mosfets for heater / fan outputs and 3 thermistor circuits.
- Fused at 5A for additional safety and component protection
- Heated bed control with additional 11A fuse
- Fits 5 Pololu stepper driver board
- Pololu boards are on pin header sockets so they can be replaced easily or removed for use in future designs.
- I2C and SPI pins left available for future expansion.
- All the Mosfets are hooked into PWM pins for versatility.
- 10. Servo style connectors are used to connect to the endstops, motors, and leds. These connectors are gold plated, rated for 3A, very compact, and globally available.
- SD Card add on available -- Available now made by Kliment - Sdramps
- LEDs indicate when heater outputs on
- Option to connect 2 motors to Z for Prusa Mendel



#### Package List:

- 1 x Assembled RAMPS RepRap Mega Pololu Shield
- 4 x A4988 Stepper Driver Motor

## **RAMPS set+sd,lcd,etc- P9,000.00**

### **Package list:**

- 1x Iduino Mega 2560
- 1x Assembled RAMPS 1.4 extend Shield
- 5x A4988 driver
- 1x Soldered and assembled panel with 4 rows LCD,SD card connector,a rotary encoder.
- 2x 10pin flat cable
- 1x SD Ramps
- 1x USB 2.0 cable
- 1x Cooler fan
- 6x Endstop
- 5x 2pin F/F cables of 70cm
- 5x 3pin F/F cables of 70cm
- 5x 4pin F/F cables of 70cm



## **RAMBo v 1.1a(no stepper driver)- P10,000**

### **Features:**

#### *Logic*

- Arduino MEGA compatible Atmega2560 and Atmega32u2 processors are compatible with all RAMPS class firmwares
- Crystals for both usb and mcu (timing accurate to 10ppm)
- 4 Thermistor jacks
- All extra pins broken out on both processors (allows using the 32u2 for LUFA AVR programmer, etc.)
- 2 channel SDRAMPS compatible SPI breakout



#### *Motor Drivers*

- 5 A4982 1/16th microstep motor drivers (A4984 1/8th prior to v1.1) (2 connectors on Z for Prusa Mendel and other dual Z printer designs)
- Digital Trimpot for stepper current control
- Current limit on driver IC VCC to prevent permanent latchup
- Microstep mode configured by MCU through firmware (no jumpers needed)
- Test points for driver control signals
- Step and Direction pins are on their own ports for synchronous movement capability
- Extra driver ports broke out for up to 3 additional drivers (some of the motor extension pins are shared with max endstop and a pin allocated for SPI-SS extensions)
- PWM DC outputs (Extruders, Fans, Etc.)
- 6 outputs
- Low resistance mosfets for cool running
- Indicator led for each channel

#### *Power*

- Three independent power rails for flexible input power configurations
- Built in SMPS for 5V generation from Motor Power Input2

#### *LCD panel support*

- There is now a fairly easy method for using a Smart Lcd with a Rambo board. See RamboLCD for instructions.

**A4988 stepper driver- P 800.00**



## STEPPER MOTORS

**NEMA17 Stepper Motor 40mm Long, 1.2A - P1,500/pc**

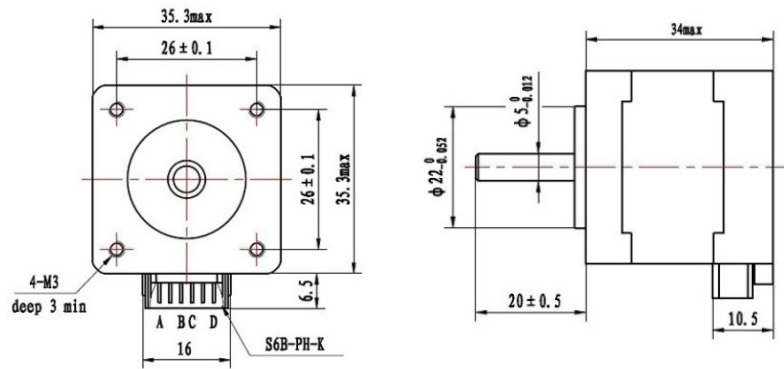
### Features:

200 steps per revolution (1.8 deg/step)  
2 Phase bipolar 4 wires  
Rated Voltage 2V DC  
Rated Current 1.2A  
Phase Resistance:  $1.7 \text{ Ohm} \pm 10\%$  (20° C)  
Phase inductance:  $4.5 \text{ mH} \pm 20\%$  (1kHz 1 V rms)  
Holding torque: 0.4 N.m Min.  
Shaft diameter: 5mm / 0.188" (3/16")  
Shaft length: 22mm  
Motor depth: 40mm





## NEMA14 34mm long Huxley Stepper Motor - P1,500.00

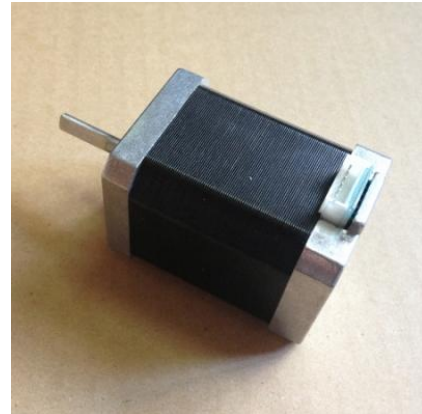
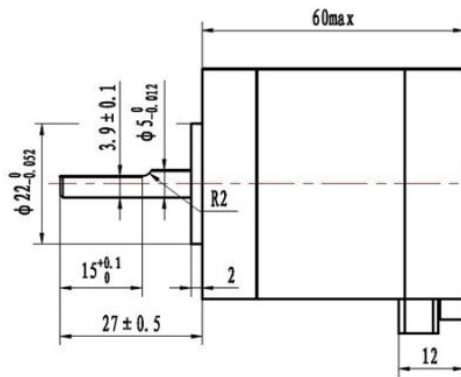


### Features:

- Reprap Huxley, Handy Nema14 stepper motor.
- Two Phase 4 lead wires
- 200 steps per revolution (1.8 deg/step)
- Option of Rated Current: **0.8A** and 1.25
- Option of Rated Voltage: **4.6V** and 2.3V
- Holding torque: 15N.cm and 9N.cm
- Shaft diameter: 5mm 0.188 inch; (3/16 inch;)
- Shaft length: 22mm
- Motor depth: 34mm
- We offer NEMA14 34mm long stepper motor in two options: 0.8A, 15N.cm for low speed(we suggest under 100rpm) and 1.25A, 9N.cm for high speed(300rpm).  
0.8A nema14 34mm stepper motor has better performance in low speed and 1.25A has more torque output in high speed.



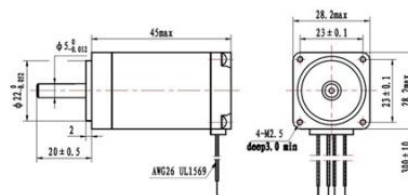
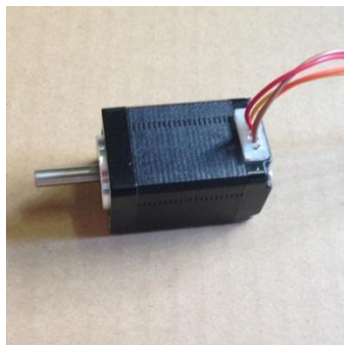
## NEMA17 60mm 1.5A high torque stepper motor - P2,000.00



### Features:

- Motor Depth: 60mm, the longest body and the highest torque of nema17 stepper motor  
Two phase 4 lead wires bipolar stepper  
Step Angle: 1.8 degree, working with A4998 stepper driver, 3200pps per revolution, high resolution for 3d printers.  
Rated Current 1.5A  
Rated Voltage: 4V  
Holding Torque: **0.65N.m** or 6.5Kg.cm  
Shaft: 5mm single flat, used with 5mm bore pulleys.
- The Nema17 60mm long stepper saves space and cost only half of a nema23 stepper, is a good choice for many high torque low speed applications. More powerful than the popular 2.8 V 1.68A 4.4kg.cm RepRap stepper motor. To use 24VDC power supply stepper driver, this motor will have more torque output at high speed.

## NEMA11 45mm long high torque stepper motor - P2,000.00



## Nema 11 (28mm) 45mm Length High Torque Hybrid Stepper Motor

Specifications:

**Holding Torque: 50mNm**

Step Angle	1.8 Deg
Rated Current	1A per phase
Rated Voltage	2.5V
Inductance per Phase	1mH
Resistance per Phase	2.5 Ohms
Motor Length	45mm
Insulation Resistance	100M Ohm Min. ,500VDC
Dielectric Strength	500VAC for one minute
Shaft	Single shaft, round 5mm D

## Threaded Rod NEMA17, 280mm Tr8\*8mm Acme

**Leadscrew - P4,000.00**

### Features:

The NEMA17 Threaded Rod Stepper Motor has a precision Acme Tr8\*8 Leadscrew coming out directly from the nema17 as a Threaded Shaft. It's a Z axis solution for your 3D Printers.

200 steps per revolution (1.8 deg/step)  
2 Phase, Bipolar, 4 wires  
Rated Voltage 2V DC  
Rated Current 1.2A  
Phase Resistance: 1.7 Ohm  $\pm$  10% (20° C)  
Phase inductance: 4.5 mH  $\pm$  20% (1kHz 1 V rms)  
Holding torque: 0.4 N.m Min.

*Motor body length: 40mm*



### NEMA17 Threaded Rod, 350mm length Tr8\*8 Leadscrew – P4500.00

#### Features:

- 200 steps per revolution (1.8 deg/step)
- 2 Phase, Bipolar, 4 wires
- Rated Voltage 2V DC
- Rated Current 1.2A
- Phase Resistance: 1.7 Ohm  $\pm$  10% (20° C)
- Phase inductance: 4.5 mH  $\pm$  20% (1kHz 1 V rms)
- Holding torque: 0.4 N.m Min.
- Motor length: 40mm
- Acme Lead Screw: 350mm long, Tr8x8(P2)



### Threaded Rod Nema17 Stepper, with 460mm Tr8\*12 Acme Leadscrew - P5000.00

Tr8\*12 Leadscrew, 2mm Pitch, 6 Starts. **The resolution is the same with Tr8\*8 Leadscrew** but for much higher speed request.

The body of the Nema17 Stepper and 17HS3001-20B are of the same specifications and electronic parameters.

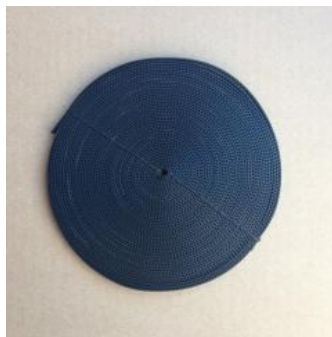


## TIMING BELTS AND PULLEYS

**GT2 Pulley 20 Teeth 5mm Bore - P300.00/pc**



**Open Ended 6mm Width GT2 Belt - P300.00/meter**



**1350mm 675 Teeth Closed-loop GT2 Belt in 6mm Wide - P 500.00 /pc**



**Closed-loop GT2 Belt, 101 Teeth 202mm Long- P100.00/pc**



**760mm 380 Teeth Closed-loop 6mm Width GT2 Belt - P300.00/pc**



**GT2 Pulley 20 Teeth 8mm Bore- P300.00/pc**



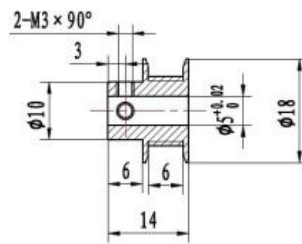
**GT2 Pulley 36 Teeth 5mm Bore- P500.00/pc**



**MXL pulley, 18 tooth, 5mm bore - P300.00/pc**



**T2.5 pulley, 16 teeth, 5mm bore- P 300.00/pc**



**Timing Belt Tensioner Spring - P50.00/pc**



## BEARINGS

**LM8UU Linear Bearing - P 150.00 /pc set of 10pcs -P1,000.00**



**608ZZ Ball Bearing - P70.00/pc ; 10 pieces – P500.00**





## HOT END ASSEMBLY

**MK8 0.4mm Nozzle - P500.00/pc**



**MK8 0.3mm Nozzle - P 600.00/pc**



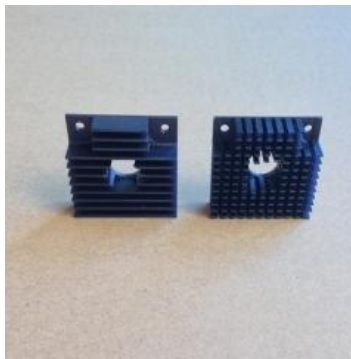
**MK7 Stainless Steel Thermal Barrier Tube - P 500.00/pc**



**MK7 Aluminum Thermal Core - P 500.00/ pc**



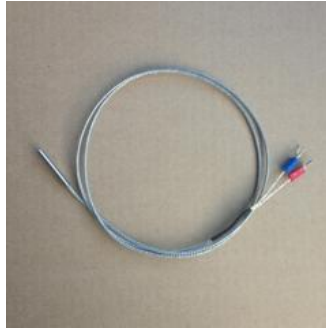
**Nema17 size stepextruder heatsink - P 400.00/pc**



**12V 40W Reprap Cartridge Heater - P500.00/pc**



**K-type Thermocouple -P150.00/pc**



**Single Extruder Bar Mount Chassis Block - P600.00/pc**



**Dual Extruder Bar Mount Chassis Block -P 800.00**



**MK7 Stainless Steel Mounting Plate-P 500.00**

