# Geeetech Prusa I3 M201



## **Copyright Declaration**

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## **Technical Support**

If you are interested in the technology of 3 D printing, flight control and U-home, welcome to Geeetech, we have series of made-up products, main boards, modules and a variety of peripherals for you. Or if you are looking for relevant information or technical support, please login our Forum where you can find anything you want about open source. To know more about our new products, please visit www.geeetech.com, we will serve you wholeheartedly.

#### SAFETY INSTRUCTIONS

Building the printer will require a certain amount of physical dexterity, common sense and a thorough understanding of what you are doing. We have provided detailed instructions to help you assemble it easily, please download at geeetech.com.

However ultimately we cannot be responsible for your health and safety whilst building or operating the printer, with that in mind be sure you are confident with what you are doing prior to commencing with building or buying. Read the entire manual to enable you to make an informed decision.

Building and operating involves electricity, so all necessary precautions should be taken and adhered to, the printer runs on 24V supplied by a certified power supply, so you shouldn't ever have to get involved with anything over 24V but bear in mind there can still be high currents involved and even at 24V they shouldn't be taken lightly.

High temperatures are involved with 3D Printing, the Extrusion nozzle of the hot end can run about 230  $^{\circ}$ C, the heated bed runs 110  $^{\circ}$ C and the molten plastic extruded will initially be at around 200  $^{\circ}$ C, so special care and attention should be made when handling these parts of the printer during operation.

We wouldn't recommend leaving your printer running unattended, or at least until you are confident to do so. We cannot be held responsible for any loss, damage, threat, hurt or other negligent result from either building or using the printer.

### **INTRODUCTION:**

Geeetech Prusa I3 M201 is the 2-in-1-out version of our latest Prusa I3 series 3D printer. This is a fused filament fabrication printer, easy to use and also designed for DIYers and professionals alike.

The M201 features our newly engineered the 2-in-1-out switchable hotend, that feeds 2 filaments through one nozzle. With the new 2-in-1-out hotend the M201 can work like a color palette, providing a new level of expression with your prints allowing you to create alternating colors, blending color and gradients.

In order to achieve this we optimized the firmware that is driven by our newly developed GTM32 pro Vb control system, which is based on the STM32 processor and paired with the ARM Coretex M3, running a dominant frequency of 72MHz, greatly improving the overall printing performance.

We added a new feature, the Mixer, to the interface to control the percentage of the feed rate of the two filaments. To prevent the extruder from becoming jammed from over fused filament detained in the barrel we added an over fused protect feature or OFP which is enabled by default and keeps things running smooth.

This M201 3D printer maintains DIY property, with which you can unleash your creativity to refit or modify it as you like. This kit is just the beginning; you can get more out of it.

## **PACKAGE LIST:**

This list includes all the parts required to assemble your Geeetech Prusa I3 M201 3D Printer. After you received your package, please check if all the parts listed are included. Also make sure all the components are in good condition and not damaged during shipping. If anything is missing please contact with our customer service straight away, provide us the NO., Name, and Qty.

| No. | Name       | Specifications | Qty | Pic. |
|-----|------------|----------------|-----|------|
| 1   | Smooth Rod | D8*L340mm      | 2   |      |
|     |            | Z axis         |     |      |
| 2   | Smooth Rod | D8*L470mm      | 2   |      |
|     |            | X axis         |     |      |
| 3   | Smooth Rod | D8*L420mm      | 2   |      |
|     |            | Y axis         |     |      |
| 4   | Lead screw | M8*L320mm      | 2   |      |
|     |            | Z axis         |     |      |
| 5   | Threaded   | M10xL450mm     | 2   |      |
|     | Rod        | Y axis         |     |      |
|     |            |                |     |      |

|     |           | GEEETE |     |      |
|-----|-----------|--------|-----|------|
| 6   | M2.5      | M2.5   | 8   |      |
|     | Washers   |        |     |      |
|     | M3        |        |     |      |
| 7   | Washers   | M3     | 110 |      |
|     | M4        | M4     |     | 0000 |
| 8   | Washers   |        | 30  |      |
|     | M10       | M10    |     |      |
| 9   | Washers   |        | 15  |      |
|     | Spring    | M10    |     |      |
| 10  | washer    |        | 8   |      |
|     |           |        |     |      |
| 11  | Hex Nut   | M2.5   | 5   |      |
|     |           |        |     |      |
| 12  | Hex Nut   | M3     | 15  | 000  |
| 12  | nex Nut   | IVIS   | 13  |      |
|     |           |        |     |      |
| 12A | Hex Nut   | M4     | 18  |      |
|     |           |        |     |      |
| 13  | Hex Nut   | M10    | 13  |      |
| 1.5 | 110/11/41 | 1,110  | 13  |      |
| 1.4 |           | 3.54   | 4   |      |
| 14  | Lock nut  | M4     | 4   |      |
|     |           |        |     |      |
|     |           |        |     |      |

| 15 | Wing nut                              | M3        | 8  |          |
|----|---------------------------------------|-----------|----|----------|
| 16 | Z-axis nut                            | TR808     | 2  |          |
| 17 | Square nut                            | M3        | 40 | •        |
| 18 | Hex<br>Counter-<br>sunk-head<br>screw | M3x16 mm  | 3  | <u> </u> |
| 19 | Hex<br>Counter-<br>sunk-head<br>screw | M3x30 mm  | 5  |          |
| 20 | Screw                                 | M2.5x8mm  | 3  | B        |
| 21 | Screw                                 | M2.5x16mm | 5  | 5        |
| 22 | Screw                                 | M3x6mm    | 37 | 5        |
| 23 | Screw                                 | M3x8mm    | 3  |          |
| 24 | Screw                                 | M3x10mm   | 5  | <u> </u> |
| 25 | Screw                                 | M3x12mm   | 25 |          |

|    |                   | GEEETE           |    |  |
|----|-------------------|------------------|----|--|
| 26 | Screw             | M3x16mm          | 40 | The same of the sa |
| 27 | Screw             | M3x20mm          | 10 |  |
| 28 | Screw             | M3x25mm          | 5  |  |
| 29 | Screw             | M3x30mm          | 2  | The second second  |
| 30 | Screw             | M3x40mm          | 2  |  |
| 31 | Screw             | M3x45mm          | 2  |  |
| 32 | Screw             | M4x 6mm          | 8  |  |
| 33 | Screw             | M4x12mm          | 13 |  |
| 34 | Screw             | M4x16mm          | 18 |  |
| 35 | Screw             | M4x25mm          | 4  |  |
| 36 | Spring            | 4*20             | 6  |  |
|    |                   |                  |    | arranna  |
| 37 | locking ring      | M8 / With screw  | 8  |  |
| 38 | Belt mount        | Sheet metal part | 1  |  |
| 39 | Linear<br>Bearing | PCS8UU           | 4  |  |

| 40 | Linear<br>Bearing   | LM8LUU                         | 2 |             |
|----|---------------------|--------------------------------|---|-------------|
| 41 | Linear<br>Bearing   | LMH8LUU                        | 2 |             |
| 42 | Driven wheel holder | Sheet metal part               | 2 | 5           |
| 43 | Driving<br>wheel    |                                | 2 |             |
| 44 | Ball Bearing        | MR84zz<br>(Placed in<br>No.43) | 4 |             |
| 45 | Pulley              | 20 tooth Inner<br>D5           | 2 | Linux state |

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|---------|--------------|------------------------|---|----|
| 46      | Timing Belts | 2GT<br>L=2.4 meters    | 1 |    |
| 47      | Belt bracket | Plastic part           | 1 | 00 |
| 48      | Couplings    | 5-8mm                  | 2 |    |
| 49      | Spacer       | With Aircraft type end | 8 |    |
| 50      | Knob         | For LCD                | 1 |    |

|    |                |                                 | /11 |  |
|----|----------------|---------------------------------|-----|--|
| 51 | Fan            | 40x40x10mm                      | 1   |  |
| 52 | Extension wire | 2-pin F-M                       | 1   |  |
| 53 | USB cord       | A-B                             | 1   |  |
| 54 | End stop kit   | 2-pin<br>Blue, red and<br>black | 1   |  |
| 55 | Heat sink      | 9*10*5mm                        | 5   |  |

|    |                      | GEEETE        |   |  |
|----|----------------------|---------------|---|--|
| 56 | Sticker              |               | 2 |  |
| 57 | Spiral Coil          | 1 meter       | 1 |  |
| 58 | Heatbed wire         |               | 1 |  |
| 59 | Heatbed              | 24V           | 1 | CHITTCH  CHI |
| 60 | Building<br>platform | Alumina plate | 1 |  |

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|----|-------------------|--|---|--|--|
| 61 | Power supply Unit | AC Input:<br>115V/1.5A<br>230V/0.75A<br>DC Output:<br>24V/10-15A | 1 | ST 180-12<br>ST 180-12 |  |
| 62 | 3D Power<br>Cable | With plug  | 1 |  |  |
| 63 | Power Cable       | Connect board<br>to PSU  | 1 | Ø  |  |
| 64 | Stepper<br>motor  |  | 4 | C) C   |  |

| 65  | 3-1 motor wire    | For X/Y/ left Z motors        | 1 |   |
|-----|-------------------|-------------------------------|---|---|
| 66  | motor wire        | 700mm<br>For Right Z<br>motor | 1 |   |
| 67  | Extruder          |                               | 2 |   |
| 68  | Extension board   |                               | 2 | SCHOOL ELECTION SUPPLY STATES |
| 69  | Hex copper spacer |                               | 4 |   |
| 70A | Extruder<br>wire  | 820mm                         | 1 | Ĭ   |

|     |                        | GEEETEC                         |       |  |
|-----|------------------------|---------------------------------|-------|--|
| 70B | Extruder<br>wire       | 450mm                           | 1     |  |
| 71  | Extruder<br>Motor wire | 6-4pin                          | 2     |  |
| 72  | Hotend                 | 2 in-1out                       | 1     |  |
| 73  | LCD 2004               | LCD2004+<br>FPC Ribbon<br>cable | 1     | CIT CITY OF THE PROPERTY OF TH |
| 74  | Control<br>board kit   | GTM32 pro<br>Vb +<br>5 A4988    | 1 set |  |

| 75 | Feeding pipe | PTFE<br>L=1meter | 2    |  |
|----|--------------|------------------|------|--|
| 76 | Nylon ties   |                  | 30   |  |
|    |              | Metal p          | arts |  |
| M1 | X- motor end | Sheet metal part | 1    |  |
| M2 | X-idle end   | Sheet metal part | 1    |  |

| M3            | X<br>Carriage               | Sheet metal part | 1 |          |  |
|---------------|-----------------------------|------------------|---|----------|--|
| M4            | Bearing<br>Bracket          | Sheet metal part | 4 | <b>5</b> |  |
| M5            | Extruder<br>holder          | Sheet metal part | 1 |          |  |
| M6            | Extension<br>board<br>cover |                  | 2 |          |  |
| Acrylic parts |                             |                  |   |          |  |
| A1            | Main frame                  | I3E-01           | 1 |          |  |

|    |                            | GEEETE |   |          |
|----|----------------------------|--------|---|----------|
| A2 | Side panel<br>(left)       | I3E-02 | 1 |          |
| A3 | Side panel (right)         | I3E-03 | 1 |          |
| A4 | Motor<br>holder<br>(left)  | I3E-04 | 1 | 13E-04   |
| A5 | Motor<br>holder<br>(right) | I3E-05 | 1 | , i3E-05 |
| A6 | Motor<br>Holder<br>support | I3E-06 | 3 | 13E-06   |

| A7  | Motor<br>Holder<br>support | I3E-07  | 1 | (SE-07   |
|-----|----------------------------|---------|---|----------|
|     |                            |         |   | <b>A</b> |
| A8  | Z top mount                | I3E-08  | 2 |          |
| A9  | Y axis Front support       | I3E-09  | 1 |          |
| A10 | Y axis Front support       | I3E-10  | 1 | <b>○</b> |
| A11 | Y axis Rear support        | I3E-11  | 1 |          |
| A12 | Y axis Rear<br>support     | I3E-12  | 1 |          |
| A13 | Y motor<br>holder          | I3B1-13 | 1 | IRE-15   |

| A14         | Connecting fender               | I3E-14 | 2 | isE 14 |  |
|-------------|---------------------------------|--------|---|--------|--|
| A15         | Building<br>platform<br>support | I3E-15 | 1 |        |  |
| A16         | Fan mount                       | I3E-16 | 1 | ₹      |  |
| Free add-on |                                 |        |   |        |  |
| 1           | Ejector<br>pin                  |        | 1 |        |  |
| 2           | File                            |        | 1 |        |  |
| 3           | Screw-<br>driver                |        | 1 |        |  |

| 4 | Starter filament       | 3 meters | 1 |  |
|---|------------------------|----------|---|--|
| 5 | Filament<br>holder set |          | 1 |  |

For detailed build instructions, please subscribe our YouTube for videos.

https://www.youtube.com/user/geeetech/playlists

Download the build instruction PDF at

http://www.geeetech.com/geeetech-prusa-i3-m201-3d-printer-diy-kit-p-965.html

#### GENERAL CARE AND MAINTENANCE

As with all the electronic equipment, it is important to keep your printer clean to extend its life. Regularly remove dust and debris with a microfiber cloth or compressed air. Dredge the tube and the nozzle after use every time to ensure fluent performance.

- Don't leave the heaters on the printer turned on for a long periods of time when not used.
- Don't leave your printer in shady and moist places, which may exacerbate the problems associated with erosion.
- The three axes of the Geeetech Prusa I3 M201 are lubricated with grease for smooth operation and can last for a long time.

  Grease may need to be re-applied to your printer to maintain smooth performance.
- Avoid positioning your power supply unit in such a way that the brick is hanging, pulling, or putting any unnecessary stress in the electrical wires and components.

## **SUPPORT**

Thanks for choosing Geeetech, we strive to provide a satisfied and pleasant shopping experience for you, but we do understand there may be some questions you may encounter in using our product. If so, you can contact us directly or post on our forum, our technique staff will help you resolve it. For more detailed information, you can also visit Geeetech wiki from our home page. (http://www.geeetech.com)



www.geeetech.com