

G4M Betty 1000mm

PRINT SETTINGS

These settings were created from results obtained from testing using a **Bowden style printer** with **standard PLA** filament. If using other styles of printer or brands of filament, the results could vary. Adjusting the flow rate and retraction settings may be required.

Settings for PLA parts:

Nozzle temp = 215c

Bed temp = 45c

Nozzle diameter = 0.4mm

Extruder multiplier (**EXT**)r = 1.0 or 100%

Extrusion width = .042

Retraction distance (**RD**) = 7mm

Extra restart distance (**PRD**) = 0.18mm

Retraction speed = 150mm/s

Coast at end (**C**) = 0.5mm

Wipe nozzle (**W**)= 2mm

Layer height (**LH**) = 0.25mm

First layer height = 100%

First layer width = 100%

First layer speed = 20%

Print speed = 60mm/s

Outline underspeed = 50%

Solid infill underspeed = 80%

Support structure underspeed = 80%

Cooling fan = 100% for all layers.

Infill percentage (**infill**) is set to 0% unless otherwise stated

Outline direction = outside to inside

Unless otherwise stated, the start point for each layer is set to Y=0mm and x=100mm.

- 100mm on “x” axis for 200mm X 200mm bed (middle of the “x” axis)

Eg **s.p x=100mm** (start point is 100mm along “x” axis)

Key for part layer height settings:

The diagram illustrates the layer height settings for a part named "Fuse 3". It shows a rectangular part with a start point at (0,0,2) and an end point at 0mm - 1mm. The top solid layers are indicated by a line, and the bottom solid layers are indicated by a line. The outline/perimeter shells are also indicated.

The screenshots show the printer's settings interface. The left screenshot shows the "Layer Modifications" section with "Start printing at height" set to 0.00 mm and "Stop printing at height" set to 1.00 mm. The right screenshot shows the "Layer Settings" section with "Primary Layer Height" set to 0.2500 mm, "Top Solid Layers" set to 0, "Bottom Solid Layers" set to 0, and "Outline/Perimeter Shells" set to 2. Both sections are circled in red.

Fuse 1

- 0mm - 19mm (0,0,2)
- 19mm - end (2,0,2)

Fuse 2

- 0mm - 1mm (0,0,2)
- 1mm - 138mm (0,0,1)
- 138mm - end (0,0,2)

Fuse 3

- 0mm - 1mm (0,0,2)
- 1mm - 196mm (0,0,1)
- 196mm - end (0,0,2)

Fuse 4

- 0mm - 1mm (0,0,2)
- 1mm - 132mm (0,0,1)
- 132mm - end (0,0,2)

Fuse 5

- 0mm - 1mm (0,0,2)
- 1mm - 129mm (0,0,1)
- 129mm - end (0,0,2)

Fuse 7

- 0mm - end (0,0,2)

Canopy front (clear pla)

- 0mm - 2mm (0,0,2)
- 2mm - end (0,0,1)

Canopy rear (clear pla)

- 0mm - 2mm (0,0,2)
- 2mm - end (0,0,1)

Motor spacers

- 0mm - end (4,4,4) **infill = 50%**

Elevators (inner)

support material required 30% infill, 0.5mm offset from part

- 0mm - end (3,3,1) **infill = 30%**

Ailerons (inner)**bed disks required (refer POI)**

- 0mm - 2mm (0,8,1)
- 2mm - 126mm (0,0,1)
- 126mm - end (0,0,2)

Ailerons (outer)**bed disks required (refer POI)**

- 0mm - 1mm (0,0,2)
- 1mm - end (0,0,1)

Flaps (inner)**bed disks required (refer POI)**

- 0mm - 1mm (0,0,2)
- 1mm - end (0,0,1)

Flaps (outer)**bed disks required (refer POI)**

- 0mm - 2mm (0,8,1)
- 2mm - end (0,0,1)

Wing inner

support material required 30% infill, 0.5mm offset from part

- 0mm - 1mm (0,0,2)
- 1mm - 169mm (0,0,1)
- 169mm - end (0,0,2)

Wing middle

- 0mm - 1mm (0,0,2)
- 1mm - 160mm (0,0,1)
- 160mm - end (0,0,2)

Wing outer

- 0mm - 1mm (0,0,2)
- 1mm - 113mm (0,0,1)
- 113mm - end (3,0,2)

Nacelle aft

support material required 30% infill, 0.5mm offset from part

- 0mm - 1.5mm (0,6,1)
- 1mm - 17.5mm (0,0,1)
- 17.5mm - 22.5mm (3,3,1)
- 22.5mm - 100mm (0,0,1)
- 100mm - end (2,0,2)

Nacelle front

- 0mm - 3mm (0,12,1)
- 3mm - 10mm (0,0,1)
- 10mm - 12mm (2,0,3)
- 12mm - 52mm (0,0,1)
- 52mm - end (0,0,2)

Cowling

- 0mm - 54mm (0,0,2)
- 54mm - end (3,0,2)

Cowling mount plates

- 0mm - end (2,2,2)

Servo covers and servo tray

- 0mm - end (4,4,4) **infill = 50%**

Waist gunner shields (clear pla)

- 0mm - 1mm (0,0,2)
- 1mm - 202mm (0,0,1)
- 202mm - end (0,0,2)

Exhausts (black pla)

- 0mm - end (1,1,2)

Tailwheel mount plate, gear lock and cowling mounts

- 0mm - end (2,2,1) **infill = 100%**

Settings for LW-PLA parts:

Nozzle temp = 250c
 Bed temp = 60c
 Nozzle diameter = 0.4mm
 Extruder multiplier (**EXT**)r = 0.35 or 35%
 Extrusion width = .042
 Retraction distance (**RD**) = 6mm
 Extra restart distance (**ERD**) = 0.45mm
 Retraction speed = 150mm/s
 Coast at end (**C**) = 3mm
 Wipe nozzle (**W**) = 3mm
 Layer height (**LH**) = 0.2mm

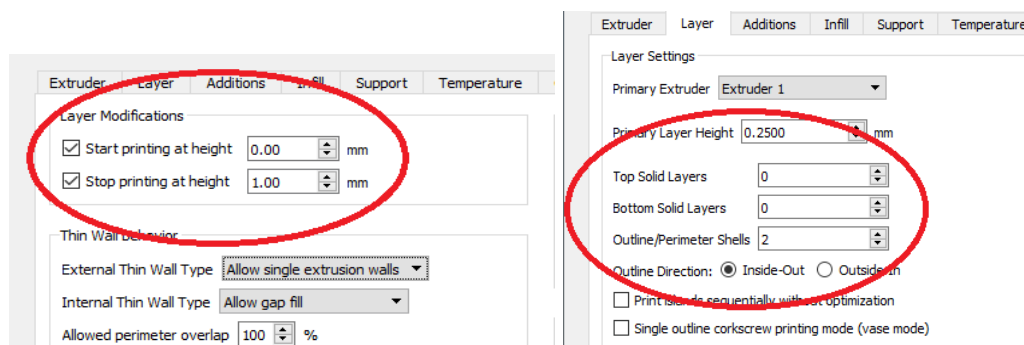
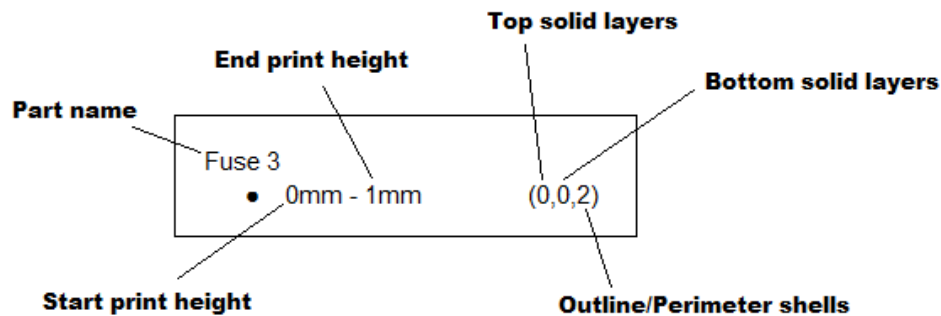
First layer height = 100%
 First layer width = 100%
 First layer speed = 30%
 Print speed = 40mm/s
 Outline underspeed = 50%
 Solid infill underspeed = 80%
 Support structure underspeed = 80%
 Cooling fan = 100% for all layers.
 Infill percentage (**IF**) is set to 0% unless otherwise stated

Unless otherwise stated, the start point for each layer is set to Y=0mm and x=100mm.

- 100mm on “x” axis for 200mm X 200mm bed (middle of the “x” axis)

Eg **s.p x=100mm** (start point is 100mm along “x” axis)

Example :



Fuse 6

support material required 30% infill, 0.5mm offset from part

- 0mm - 1mm (0,0,2)
- 1mm - 168mm (0,0,1)
- 168mm - end (0,0,2)

Vertical stabilizer lower

- 0mm - 1mm (0,0,2)
- 1mm - 78mm (0,0,1)
- 78mm - end (0,0,2)

Vertical stabilizer upper

- 0mm - 1mm (0,0,2)
- 1mm - 20mm (0,0,1)
- 20mm - end (2,0,2)

Rudder (bottom)

- 0mm - 1.5mm (0,6,2)
- 1.5mm - 54mm (0,0,1)
- 54mm - end (0,0,1)

Rudder (top)

- 0mm - 1mm (0,0,2)
- 1mm - 47mm (0,0,1)
- 47mm - end (3,0,2)

Horizontal stabilizer inner

- 0mm - 1mm (0,0,2)
- 1mm - 125mm (0,0,1)
- 125mm - end (0,0,2)

Horizontal stabilizer outer

- 0mm - 1mm (0,0,2)
- 1mm - 34mm (0,0,1)
- 34mm - end (3,0,2)

Horizontal stabilizers

- 0mm - 1mm (0,0,2)
- 1mm - 90mm (0,0,1)
- 90mm - end (0,0,2)

Elevators (outer)

- 0mm - 2mm (0,0,2)
- 2mm - end (0,0,1)

Elevators (middle)

- 0mm - 1.5mm (0,6,1)
- 1.5mm - 88mm (0,0,1)
- 88mm - end (0,0,2)