H303 Mosquito 3000mm
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 = 210c
Bed temp = 45c
Nozzle diameter = 0.4mm
Extruder multiplier (**EXT**)r = 1.0 or 100%
Extrusion width = .042
Retraction distance (**RD**) = 5mm
Extra restart distance (**ERD**) = 0.2mm
Retraction speed = 150mm/s
Layer height (**LH**) = 0.25mm
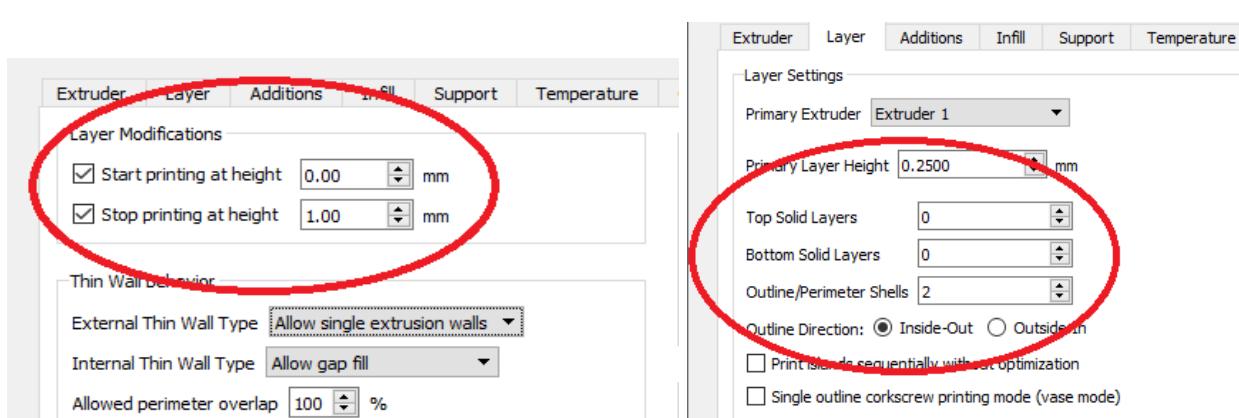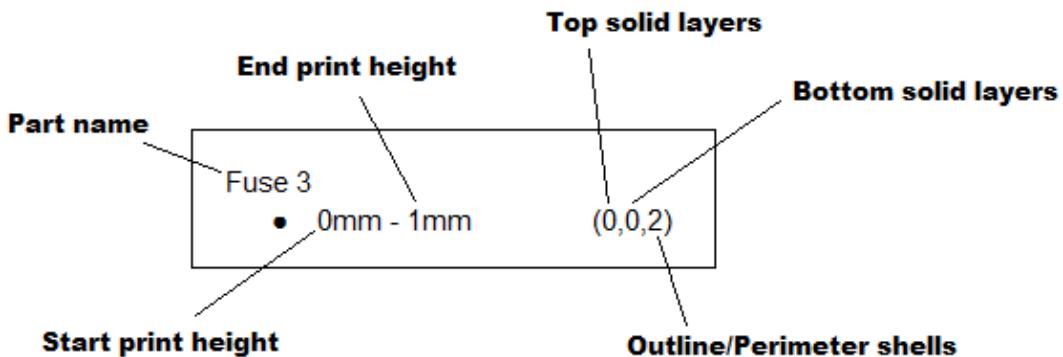First layer height = 100%

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 (**IF**) 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:

FUSELAGE

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

Fuse 2
- 0mm - 2mm   (0,26,1)
- 6.5mm - 164mm   (0,0,1)
- 148mm - end   (0,0,2)

Fuse 3
- 0mm - 3mm   (0,12,1)   **bed disk required (refer POI)**
- 3mm - 120mm (0,0,1)
- 120mm - end   (0,0,2)

Fuse 4   Use support, **see image # 1 and** **(refer POI)**
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 135mm (0,0,1)
- 135mm - end   (0,0,2)
  Bed disk
- 0mm - end   (0,1,1)

Fuse 5
- 0mm - 3mm   (0,12,1)   **bed disk required (refer POI)**
- 3mm - 169mm (0,0,1)
- 169mm - end   (0,0,2)

Fuse 6 and 7
- 0mm - 1mm   (0,0,2)
- 1mm - 169mm (0,0,1)
- 169mm - end   (0,0,2)

Fuse 8 and 9
- 0mm - 1mm   (0,0,2)
- 1mm - 106mm (0,0,1)
- 106mm - end   (0,0,2)

Fuse belly plate
- 0mm - end   (0,1,1)   **bed disk required (refer POI)**

Aft servo mount plate and bracket
- 0mm - end   (0,1,1)   **infill = 100%**

Canopy front and rear
- 0mm - 1mm   (0,0,2)
- 1mm - end   (0,0,1)

Canopy front
- 0mm - 1mm   (0,0,2)
- 1mm - 197mm (0,0,1)
- 197mm - end   (0,0,2)

Propeller assembly   use raft see **image # 2**
- **Blade**
- 0mm - end   (2,2,1)   **infill = 100%**   **printed at 0.15mm layer height**
- **Hub**
- 0mm - end   (3,3,3)   **infill = 30%**   **printed at 0.15mm layer height**
- **Spinner**
- 0mm - end   (0,0,2)   **infill = 10%**   **printed at 0.15mm layer height**

Landing gear components
- 0mm - end   (2,2,1)   **infill = 100%**   **printed at 0.2mm layer height**

RDS components
- 0mm - end   (0,39,1)   **EXT= 0.9, RD= 6mm, printed at 0.2mm layer height**

TAIL

Horizontal stabilizer
- **Inner**   Use support, see **image # 1** and **(refer POI)**
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 159mm (0,0,1)
- 159mm - end   (0,0,2)
- **Outer**
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 84mm   (0,0,1)
- 84mm - end   (3,0,2)
- **Elevator servo cover**
- 0mm - end   (0,4,1)
- **Bed disk**
- 0mm - end   (0,1,1)

Vertical stabilizer
- **Lower**
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 108mm (0,0,1)
- 108mm - end   (0,0,2)
- **Upper**
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 102mm (0,0,1)
- 102mm - end   (0,0,2)
- **Bed disk**

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

Elevator

    Inner   **infill = 50%,** Use support, **see image # 1 and** **(refer POI)**
- 0mm - end   (0,0,2)

    Middle
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 148mm (0,0,1)
- 148mm - end   (0,0,2)

    Outer
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 80mm   (0,0,1)
- 80mm - end   (2,0,2)

Rudder

    Lower
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 9mm   (0,0,1)
- 9mm - end   (3,0,2)

    Middle
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 168mm (0,0,1)
- 168mm - end   (0,0,2)

    Upper
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

SCALE WING "A"

Wing 1
- 0mm - 1mm   (0,0,2)
- 1mm - 171mm (0,0,1)
- 171mm - end   (0,0,2)

Use support, see **image # 1** and **(refer POI)**
bed disk required (refer POI)

Wing 2
- 0mm - 1mm   (0,0,2)
- 1mm - 178mm (0,0,1)
- 178mm - end   (0,0,2)

Use support, see **image # 1** and **(refer POI)**
bed disk required (refer POI)

Wing 3
- 0mm - 1mm   (0,0,2)
- 1mm - 173mm (0,0,1)
- 173mm - end   (0,0,2)

Use support, see **image # 1** and **(refer POI)**
bed disk required (refer POI)

Wing 4
- 0mm - 1mm   (0,0,2)
- 1mm - 165mm (0,0,1)
- 165mm - end   (0,0,2)

Use support, see **image # 1** and **(refer POI)**
bed disk required (refer POI)

Wing 5
- 0mm - 1mm   (0,0,2)
- 1mm - 165mm (0,0,1)
- 165mm - end   (0,0,2)

Use support, see **image # 1** and **(refer POI)**
bed disk required (refer POI)

Wing 6
- 0mm - 1mm   (0,0,2)
- 1mm - 163mm (0,0,1)
- 163mm - end   (0,0,2)

bed disk required (refer POI)

Wing 7
- 0mm - 1mm   (0,0,2)
- 1mm - 188mm (0,0,1)
- 188mm - end   (0,0,2)

bed disk required (refer POI)

Wing 8
- 0mm - 1mm   (0,0,2)
- 1mm - 170mm (0,0,1)
- 170mm - end   (0,0,2)

bed disk required (refer POI)

Ailerons

Aileron 1
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Aileron 2 and 3
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 169mm (0,0,1)
- 169mm - end   (0,0,2)

Aileron 4
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 125mm (0,0,1)
- 125mm - end   (0,0,2)

Flaps

Flap 1
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Flap 2 and 3
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 188mm (0,0,1)
- 188mm - end   (0,0,2)

Flap 4
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Airbrake left

Left 1   Use support, see **image # 1** and **(refer POI)**
- 0mm - 1.5mm   (0,6,1)   **bed disk required (refer POI)**
- 1.5mm - end   (0,0,1)

Left 2   Use support, see **image # 1** and **(refer POI)**
- 0mm - 1.5mm   (0,6,1)   **bed disk required (refer POI)**
- 1.5mm - 198mm   (0,0,1)
- 198mm - end   (0,0,2)

Left 3   Use support, see **image # 1** and **(refer POI)**
- 0mm - 1.5mm   (0,6,1)   **bed disk required (refer POI)**
- 1.5mm - 194mm   (0,0,1)
- 194mm - end   (0,0,2)

Left 4   Use support, see **image # 1** and **(refer POI)**
- 0mm - 1.5mm   (0,6,1)   **bed disk required (refer POI)**
- 1.5mm - end   (0,0,1)

Airbrake right

Right 1   Use support, see **image # 1** and **(refer POI)**
- 0mm - 1.5mm   (0,6,1)   **bed disk required (refer POI)**
- 1.5mm - end   (0,0,1)

Right 2   Use support, see **image # 1** and **(refer POI)**
- 0mm - 1.5mm   (0,6,1)   **bed disk required (refer POI)**
- 1.5mm - 107mm   (0,0,1)
- 107mm - end   (0,0,2)

Right 3
- 0mm - 1.5mm   (0,6,1)   **bed disk required (refer POI)**
- 1.5mm - 148mm   (0,0,1)
- 148mm - end   (0,0,2)

Right 4
- 0mm - 1.5mm   (0,6,1)   **bed disk required (refer POI)**
- 1.5mm - 135mm   (0,0,1)
- 135mm - end   (0,0,2)

Right 5   Use support, see **image # 1** and **(refer POI)**
- 0mm - 1mm   (0,6,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Servo mounts and covers
- 0mm - end   (0,39,1)   **EXT= 0.9, RD= 6mm, printed at 0.2mm layer height**

BASIC WING "B"

Wing 1
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 171mm (0,0,1)
- 171mm - end   (0,0,2)

Wing 2
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 178mm (0,0,1)
- 178mm - end   (0,0,2)

Wing 3
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 173mm (0,0,1)
- 173mm - end   (0,0,2)

Wing 4
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 165mm (0,0,1)
- 165mm - end   (0,0,2)

Wing 5
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 165mm (0,0,1)
- 165mm - end   (0,0,2)

Wing 6
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 163mm (0,0,1)
- 163mm - end   (0,0,2)

Wing 7
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 188mm (0,0,1)
- 188mm - end   (0,0,2)

Wing 8
- 0mm - 1mm   (0,0,2)   **bed disk required (refer POI)**
- 1mm - 170mm (0,0,1)
- 170mm - end   (0,0,2)

Ailerons

Aileron 1
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Aileron 2
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 169mm (0,0,1)
- 169mm - end   (0,0,2)

Aileron 3
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 150mm (0,0,1)
- 150mm - end   (0,0,2)

Aileron 3 + 4
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 169mm (0,0,1)
- 169mm - end   (0,0,2)

Aileron 5
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Flap left

Flap 1
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Flap 2
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 161mm (0,0,1)
- 161mm - end   (0,0,2)

Flap 3
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 198mm (0,0,1)
- 198mm - end   (0,0,2)

Flap 4
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Flap right
  Flap 1
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

  Flap 2
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 133mm (0,0,1)
- 133mm - end   (0,0,2)

  Flap 3 + 4
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 157mm (0,0,1)
- 157mm - end   (0,0,2)

  Flap 5
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

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

WINGTIPS

Standard tip   use raft see **image # 2**
- 0mm - end   (2,2,1)

4m tip
  Inner + Middle
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - 193mm (0,0,1)
- 193mm - end   (0,0,2)

  Outer
- 0mm - 1mm   (0,1,1)   **bed disk required (refer POI)**
- 1mm - end   (0,0,1)

Ls8 tip   use raft see **image # 2**
- 0mm - end   (2,2,1)

image # 1

Support Material Generation

☑ Generate Support Material

Support Extruder [Extruder 1 ▼]

Support Infill Percentage [30] %

Extra Inflation Distance [0.00] mm

Support Base Layers [0]

Combine Support Every [1] layers

Dense Support

Dense Support Extruder [Extruder 1 ▼]

Dense Support Layers [0]

Dense Infill Percentage [70] %

Automatic Placement

Only used if manual support is not defined

Support Type [Normal ▼]

Support Pillar Resolution [3.00] mm

Max Overhang Angle [45] deg

Separation From Part

Horizontal Offset From Part [0.50] mm

Upper Vertical Separation Layers [1]

Lower Vertical Separation Layers [1]

Support Infill Angles

[0] deg | 90
0

[Add Angle]

[Remove Angle]

image # 2

☑ Use Raft

Raft Extruder [Extruder 1 ▼]

Raft Top Layers [2]

Raft Base Layers [0]

Raft Offset from Part [3.00] mm

Separation Distance [0.14] mm

Raft Top Infill [100] %

Above Raft Speed [30] %