

# TRACER 2000

## PRINT SETTINGS

### Settings for PLA parts:

Nozzle temp = 215c  
Bed temp = 45c  
Nozzle diameter = 0.4mm  
Extruder multiplier = 1.0  
Extrusion width = .042  
Retraction distance = 7mm  
Extra restart distance = 0.2mm  
Retraction speed = 150mm/s  
Coast at end = 0.5mm  
Wipe nozzle = 2mm  
Layer height = 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 is set to 0% unless otherwise stated  
Outline direction = inside to outside

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 start print height is marked at the bottom left, and the end print height is marked at the top right. The outline/perimeter shells are marked at the bottom right.

The software interface shows the Layer Modifications tab with the following settings:

- Start printing at height: 0.00 mm
- Stop printing at height: 1.00 mm

The Layer Settings tab shows the following settings:

- Primary Extruder: Extruder 1
- Primary Layer Height: 0.2500 mm
- Top Solid Layers: 0
- Bottom Solid Layers: 0
- Outline/Perimeter Shells: 2
- Outline Direction: Inside-Out
- Print inside sequentially with no optimization: ☐
- Single outline corkscrew printing mode (vase mode): ☐

#### Fuse 1

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

#### Fuse 2

- 0mm - 3mm (0,12,1)
- 3mm - end (0,0,1)

#### Fuse 3

- 0mm - 1mm (0,0,2)
- 1mm - 90mm (0,0,1)
- 90mm - end (0,0,3)

**Outline direction = outside to inside**

#### Fuse 4

- 0mm - 1mm (0,0,2)
- 1mm - 14mm (0,0,1)
- 14mm - 15mm (3,0,1)
- 15mm - end (0,0,1)

#### Fuse 5

- 0mm - 2mm (0,0,2)
- 2mm - 176mm (0,0,1)
- 176mm - end (0,0,3)

**Outline direction = outside to inside**

#### Fuse 6

- 0mm - 2mm (0,0,2)
- 2mm - 95mm (0,0,1)
- 95mm - end (2,0,2)

#### Servo covers and servo tray

- 0mm - end (0,500,1)

**printed at .15mm layer height**  
**Extruder multiplier = 0.95**

#### Aileron inner

- 0mm - 2mm (0,8,1)
- 2mm - 146mm (0,0,1)
- 146mm - end (0,0,2)

#### Aileron middle

- 0mm - 2mm (0,0,2)
- 2mm - 148mm (0,0,1)
- 148mm - end (0,0,2)

#### Aileron outer

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

#### Canopy front and rear

- 0mm - 1mm (0,0,2)
- 1mm - 171mm (0,0,1)
- 171mm - end (3,0,1)

#### Elevators

- 0mm - 1mm (0,4,1)
- 1mm - end (0,0,1)

#### Propeller blades

- 0mm - end (0,500,1)

printed at .1mm layer height

Use raft and support, **see image # 1 and 3**

#### Propeller hub

- 0mm - end (0,500,1)

printed at .15mm layer height

Use raft and support, **see image # 1 and 4**

#### Propeller spinner

- 0mm - end (0,500,1)

printed at .15mm layer height

Use raft and support, **see image # 1 and 4**

#### Vertical stabilisers

- 0mm - 184mm (0,0,1)
- 184mm - end (0,0,2)

#### Vertical stabiliser tips

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

#### V-tail hub

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

infill = 30%

#### Wing 1

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

Use raft, **see image # 2**

#### Wing 2

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

Use raft, **see image # 2**

#### Wing 3

- 0mm - 1mm (0,0,2)
- 1mm - 148mm (0,0,1)
- 148mm - end (0,0,2)

Use raft, **see image # 2**

#### Wing 4

- 0mm - 1mm (0,0,2)
- 1mm - 148mm (0,0,1)
- 148mm - end (0,0,2)

Use raft, **see image # 2**

Wing 5

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

Use raft, **see image # 2**

Wing 6

- 0mm - 2mm (0,0,2)
- 2mm - 128mm (0,0,1)
- 128mm - end (0,0,2)

Use raft, **see image # 2**

Wing 7

- 0mm - 2mm (0,0,2)
- 2mm - 61mm (0,0,1)
- 61mm - end (0,0,2)

Use raft, **see image # 2**

**image # 1**

☒ Use Raft

Raft Extruder Extruder 1

Raft Top Layers 2

Raft Base Layers 0

Raft Offset from Part 2.50 mm

Separation Distance 0.20 mm

Raft Top Infill 100 %

Above Raft Speed 30 %

**image # 2**

☒ Use Raft

Raft Extruder Extruder 1

Raft Top Layers 2

Raft Base Layers 0

Raft Offset from Part 6.00 mm

Separation Distance 0.15 mm

Raft Top Infill 100 %

Above Raft Speed 30 %

**image # 3**

Support Material Generation

☒ Generate Support Material

Support Extruder Extruder 1

Support Infill Percentage 30 %

Extra Inflation Distance 1.00 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 1.00 mm

Max Overhang Angle 45 deg

Separation From Part

Horizontal Offset From Part 0.20 mm

Upper Vertical Separation Layers 1

Lower Vertical Separation Layers 1

Support Infill Angles

0 deg 0

90

Add Angle

Remove Angle

**image # 4**

Support Material Generation

☒ Generate Support Material

Support Extruder Extruder 1

Support Infill Percentage 50 %

Extra Inflation Distance 0.50 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 2.00 mm

Upper Vertical Separation Layers 1

Lower Vertical Separation Layers 1

Support Infill Angles

0 deg 90

0

Add Angle

Remove Angle