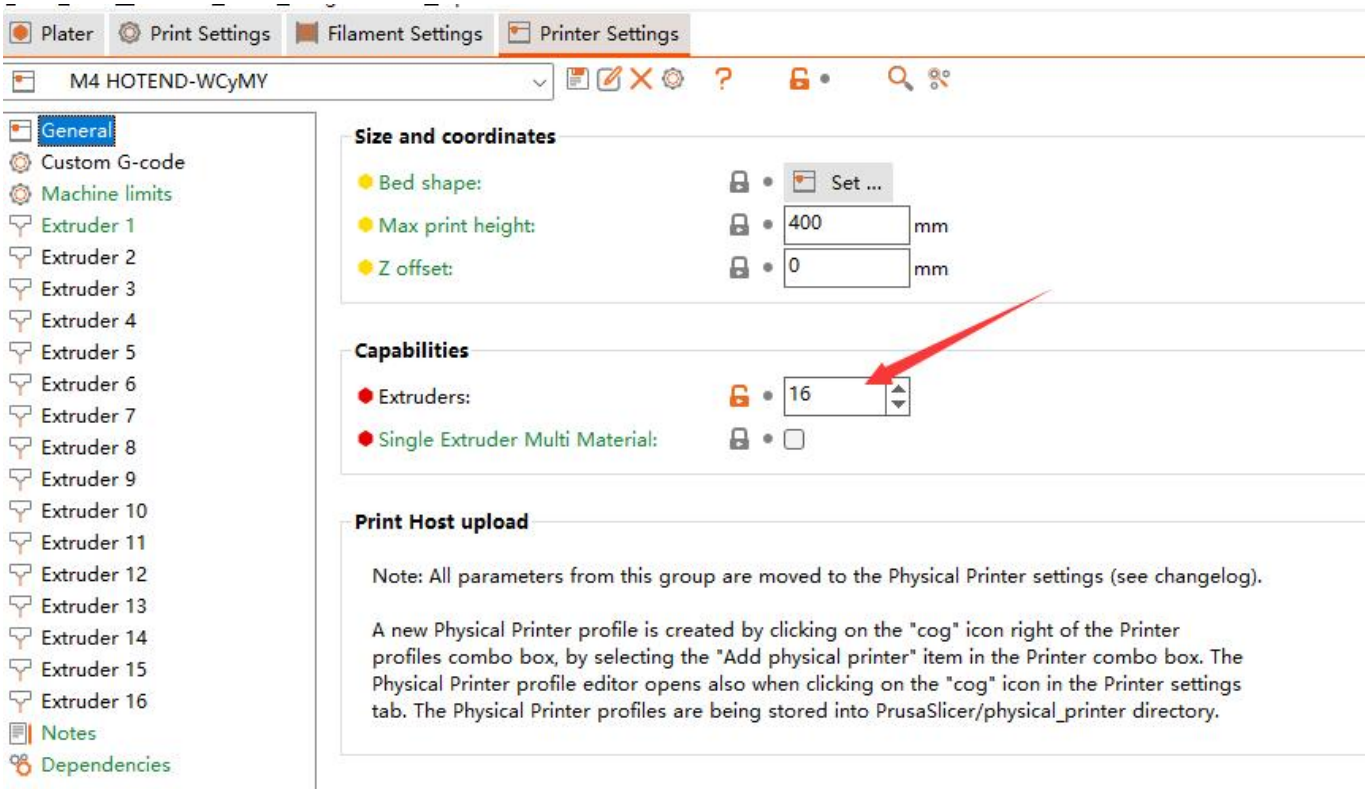
Choose Language (Translated by google)

Mixed multi-color operation manual

This section will introduce how to use a virtual extruder to print 3D models with more colors than the number of extruders.

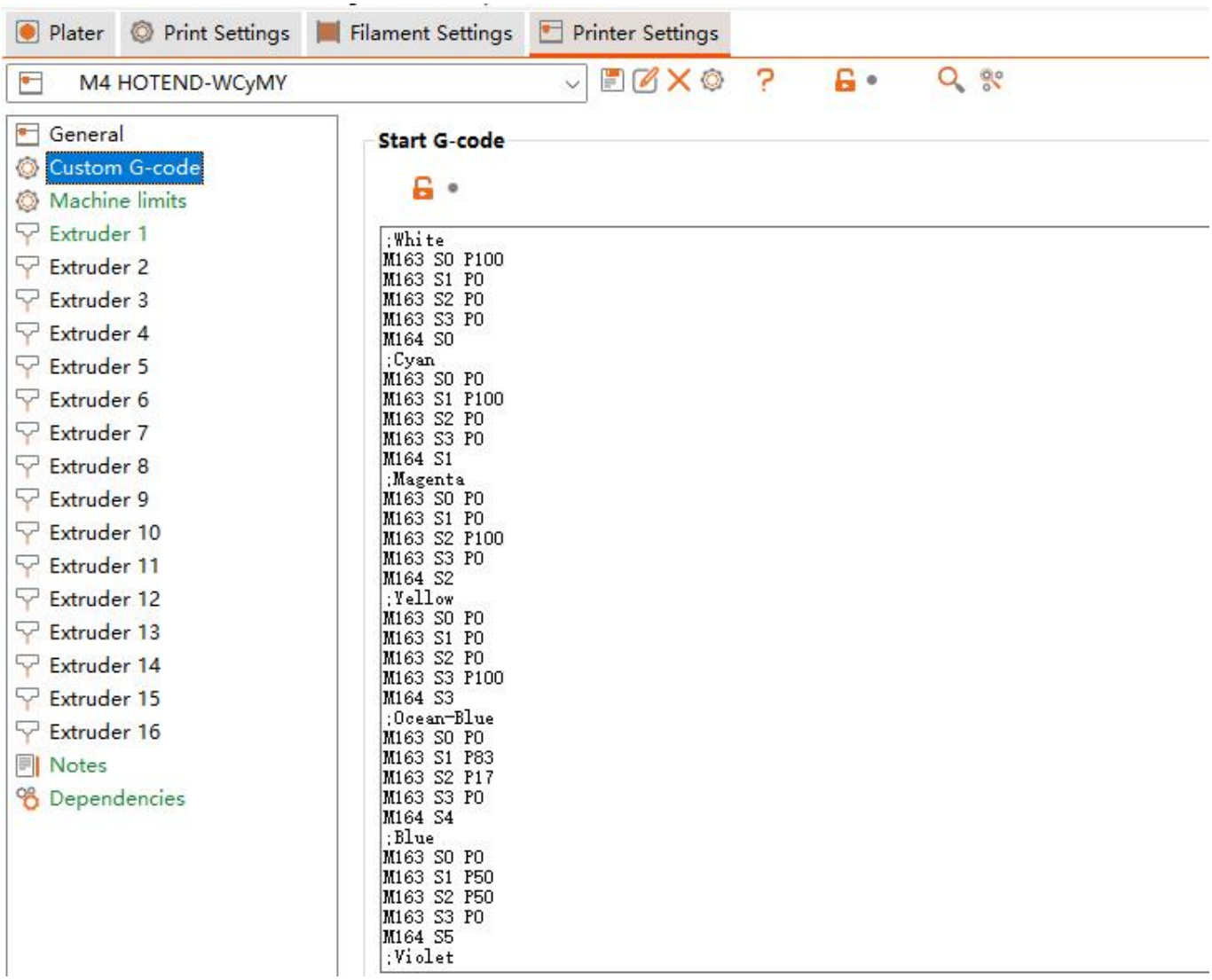
Slicing steps

Step 1: Set the number of extruders



Step 2: Set the mixing ratios of VTOOLs

Add mixing ratios of VTOOLs setting into the "Start G-code". How to set mixing ratio of Virtual extruder

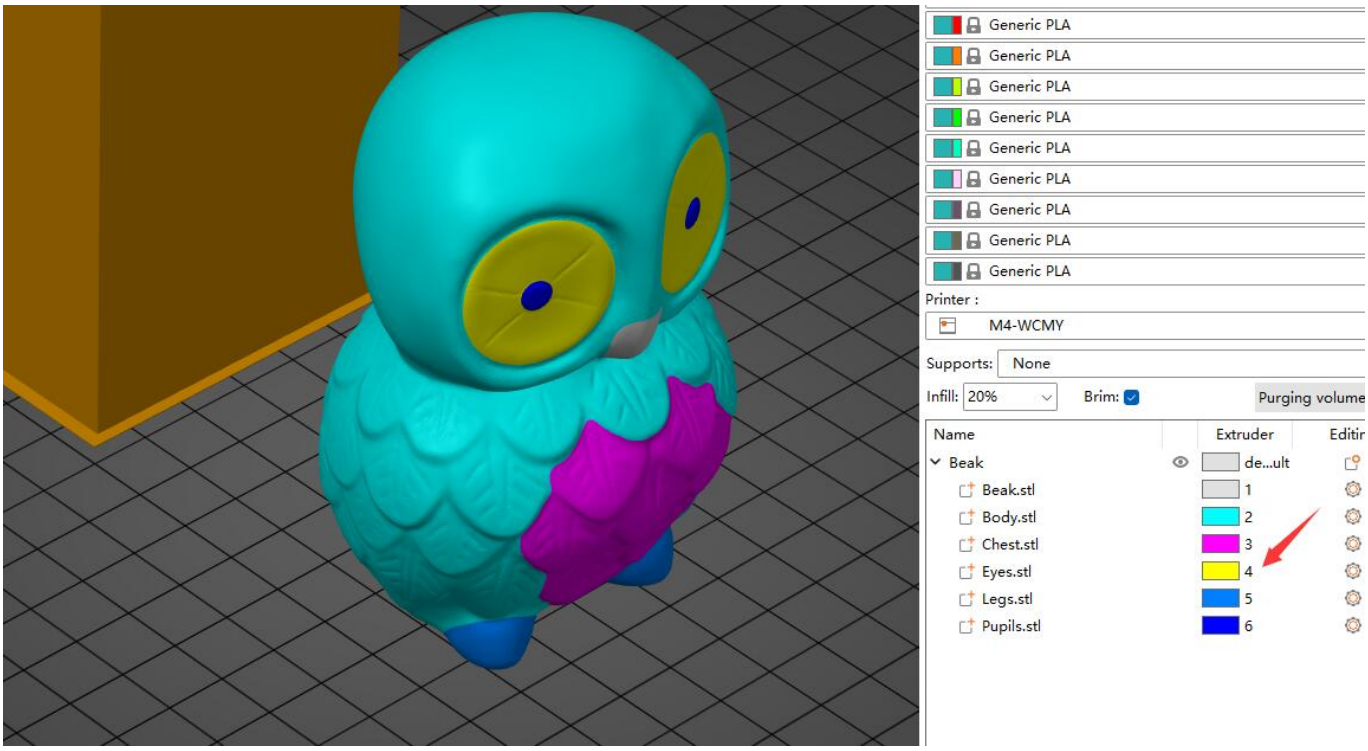


Note

You can download the setting from the bewlow link and unzip it, and then import the setting to your slicing software (PrusaSlicer).

- Download config file
- Video tutorial

Step 3: Assign an extruder to the components



Step 4: Slicing and save gcode to SD card

Step 5: Print the file from SD card

Examples

6 color OWL

- **Video tutorial**
- **Download stl file**
- **Download 3mf & gcode file**

10 color Noahs

- **Video tutorial: Part1 Part2 Part3**
- **Download stl file**
- **Download 3mf & gcode file**

Appendix: Color mixing ratio reference settings

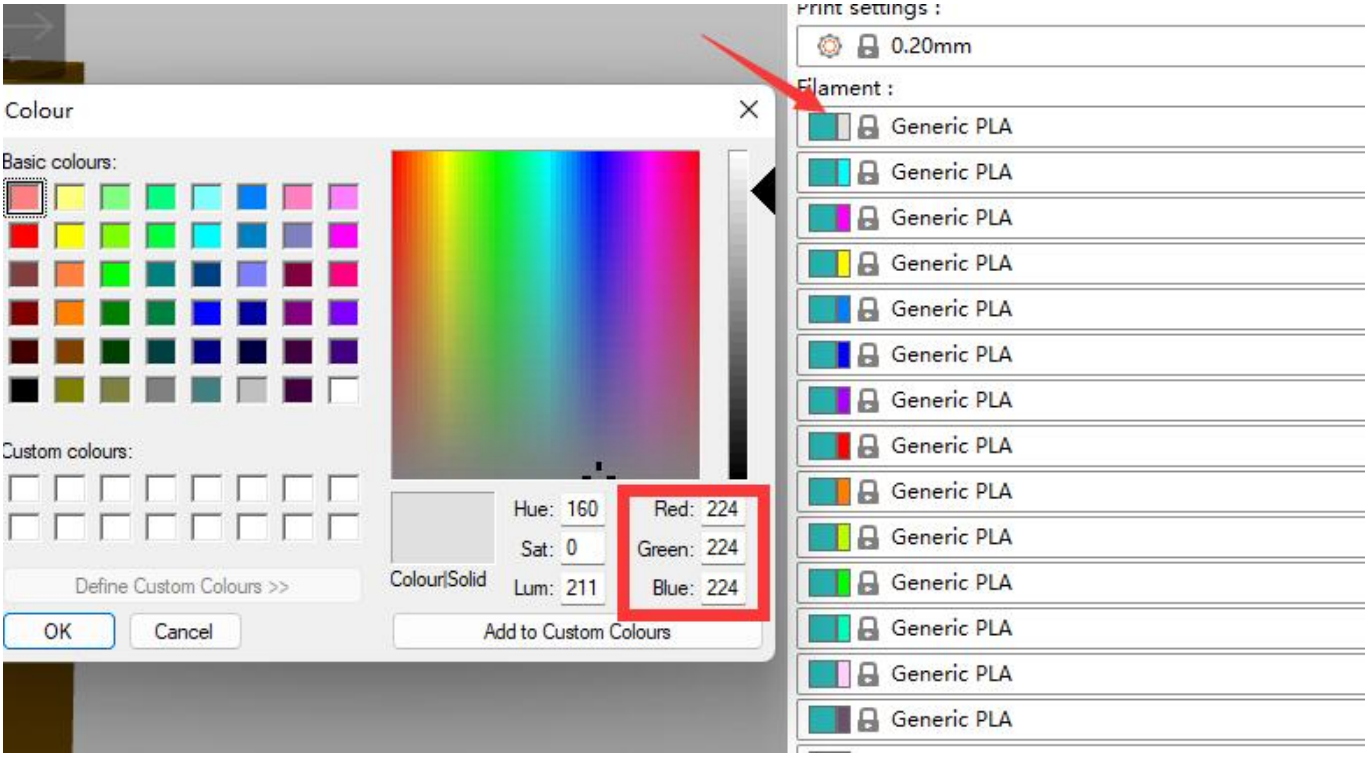
Here is a set of reference mixing ratio settings for mixing Cyan, Magenta, and Yellow filament into other color filament.

- **Filament color:**
  - E1: White
  - E2: Cyan
  - E3: Magenta

    - E4: Yellow
- **mix ratio and extruder color:**

VTOOL number	mixing ratio	mixed filament color	Extruder color *
0	100/0/0/0	White	R255 G255 B255
1	0/100/0/0	Cyan	R0 G255 B255
2	0/0/100/0	Magenta	R255 G0 B255
3	0/0/0/100	Yellow	R255 G255 B0
4	0/0/0/100	Ocean-Blue	R255 G255 B0
5	0/50/50/0	Blue	R0 G0 B255
6	0/17/83/0	Violet	R169 G0 B255
7	0/0/83/17	red	R255 G0 B0
8	0/0/50/50	Orange	R255 G159 B0
9	0/17/0/83	Spring-Green	R191 G255 B0
10	0/50/0/50	Green	R0 G255 B0
11	0/50/0/50	Turquoise	R0 G255 B191
12	75/0/25/5	skin	R255 G210 B255
13	0/25/50/25	Magenta-Brown	R106 G83 B83
14	0/25/25/50	Yellow-Brown	R106 G106 B83
14	0/33/33/34	Brown	R83 G83 B83

* Extruder color: RGB value of the extruder color is used to set the extruder color in slicint software.



Gcodes list

You can copy the blow to the "Start G-code" in slicint software to set the virtual extruders.

```
;White
M163 S0 P100
M163 S1 P0
M163 S2 P0
M163 S3 P0
M164 S0
;Cyan
M163 S0 P0
M163 S1 P100
M163 S2 P0
M163 S3 P0
M164 S1
;Magenta
M163 S0 P0
M163 S1 P0
M163 S2 P100
M163 S3 P0
M164 S2
;Yellow
M163 S0 P0
M163 S1 P0
M163 S2 P0
M163 S3 P100
M164 S3
;Ocean-Blue
```

```
M163 S0 P0
M163 S1 P83
M163 S2 P17
M163 S3 P0
M164 S4
;Blue
M163 S0 P0
M163 S1 P50
M163 S2 P50
M163 S3 P0
M164 S5
;Violet
M163 S0 P0
M163 S1 P17
M163 S2 P83
M163 S3 P0
M164 S6
;Red
M163 S0 P0
M163 S1 P0
M163 S2 P83
M163 S3 P17
M164 S7
;Orange
M163 S0 P0
M163 S1 P0
M163 S2 P50
M163 S3 P50
M164 S8
;Spring-Green
M163 S0 P0
M163 S1 P17
M163 S2 P0
M163 S3 P83
M164 S9
;Green
M163 S0 P0
M163 S1 P50
M163 S2 P0
M163 S3 P50
M164 S10
;Turquoise
M163 S0 P0
M163 S1 P83
M163 S2 P0
M163 S3 P17
M164 S11
;skin
M163 S0 P18
M163 S1 P0
M163 S2 P5
```

```
M163 S3 P1
M164 S12
;Magenta-Brown
M163 S0 P0
M163 S1 P25
M163 S2 P50
M163 S3 P25
M164 S13
;Yellow-Brown
M163 S0 P0
M163 S1 P25
M163 S2 P25
M163 S3 P50
M164 S14
;Brown
M163 S0 P0
M163 S0 P33
M163 S1 P33
M163 S2 P34
M164 S15
```