



Race Drone

Y Y3D

[VIEW IN BROWSER](#)

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Summary

This is an entirely 3d printable, aerodynamic, light, strong and stiff Race Drone frame.



9.06 hrs



14 pcs



0.15 mm



0.40 mm



PET
Flex



78 g



Prusa MINI /
MINI+

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It features:

a modular frame and canopy

two version for 4in and 5in propellers

aerodynamic and stiff frame

weight of the 3d prints ~70g

motor protection

battery strap mounts on the bottom

16 x 16mm and 12 x 12mm motor mount

m3 screws 10mm or 12mm are needed

20 x 20mm and 30.5 x 30.5mm mount for ESC and flight controller etc.

cable ducts for motors and antennas and LEDs and etc.

canopies for 14 x 14mm and 19 x 19mm fpv cameras

V 0.31

updated canopy with mount for 4mm diameter tubes for antennas

New version V 0.3

The new version is lighter, stronger and easier to assemble.

5in Frame 144mm (motor to motor) without supports

4in Frame 116mm (motor to motor) without supports

Canopy 19mm supports recommended

The canopy is now held by two velcro straps.

At the moment (V0.1) there are 5 3d files:

Frame 144mm 5.5in without supports

Frame 116mm 4.5in without supports

Canopy 14mm supports recommended

Canopy 19mm with SMA antenna mount without supports

Canopy Mesh 19mm supports recommended

The canopy is screwed on by m3 screws.

Print instructions:

All files are designed to be printed on a 18 x 18cm print bed (prusa mini), also a bigger print bed is better. Because warping can be a problem, so enclosure is recommended. Also a skirt can help.

The most strenght lies in the perimeters.

I use 4 layers a the Top and Bottom and 2 perimeters.

I recomend rectangular infill.

The Drone can be printed in PLA, but it will only withstand a few crashes in warm weather.

It is recommended to print it at least in PET(G) better is PC or PA.

A Freecad file is included for easy changes.

fpv race quad copter quadcopter fpv race drone fpv drone fpvdrone
fpvquadcopter fpv quad fpvracing fpv racing miniquad mini quad
quadcopterframe miniquadcopter drone racing droneracing racingdrone
race quadcopter droneframe multicopter multi copter 5" 5 inch 4" 4 inch
Make it Fly RC

Model files

 **V 0.32** 7 files

**previewstl.stl**

**frame.stl**

**frame.step**

**frame-144mm-mk4.3mf**

**frame-144mm-mk3.3mf**



canopy-mk4.3mf



antenna-mount-mk4.3mf



V 0.31

5 files



preview.stl



canopy.step



antenna-mount.step



canopy.3mf



antenna-mount.3mf

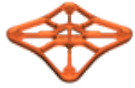


V 0.3

9 files



canopy-19mm.stl



frame-144mm.stl



frame-116mm.stl



canopy.3mf



frame.3mf



canopy-19mm.step



frame-144mm.step



frame-116mm.step



all.fcstd



v 0.1

8 files



preview.stl



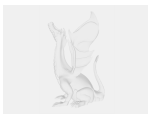
frame.3mf



canopy.3mf



canopymesh19mm.stl



canopy14mm.step



canopy19mm.step



frame144mm.step



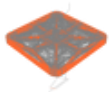
frame-116mm.step

Print files



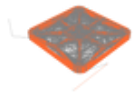
V 0.32

4 files



frame-144mm-mk4_04n_015mm_petg_mk4_7h5m.gcode

⚙ PET ⚙ 0.40 mm ⚙ 0.15 mm ⌚ 7.09 hrs ⚖ 65 g 🖨 Prusa MK4



frame-144mm-mk3_04n_015mm_petg_mk3s_7h26m.gcode

PET 0.40 mm 0.15 mm 7.43 hrs 64 g Prusa MK3/S/S+



canopy-mk4_04n_015mm_petg_mk4_1h56m.gcode

PET 0.40 mm 0.15 mm 1.93 hrs 12 g Prusa MK4



antenna-mount-mk4_04n_015mm_flex_mk4_3m.gcode

Flex 0.40 mm 0.15 mm 0.04 hrs 1 g Prusa MK4



V 0.31

2 files



canopy_015mm_petg_mini_2h7m.gcode

PET 0.40 mm 0.15 mm 2.12 hrs 11 g Prusa MINI / MINI+



antenna-mount_015mm_flex_mini_3m.gcode

Flex 0.40 mm 0.15 mm 0.05 hrs 1 g Prusa MINI / MINI+



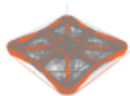
V 0.3

3 files



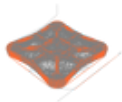
canopy-19mm_015mm_petg_mini_2h33m.gcode

PET 0.40 mm 0.15 mm 2.54 hrs 14 g Prusa MINI / MINI+



frame-144mm_015mm_petg_mini_7h26m.gcode

PET 0.40 mm 0.15 mm 7.43 hrs 61 g Prusa MINI / MINI+



frame-116mm_015mm_petg_mini_6h34m.gcode

PET 0.40 mm 0.15 mm 6.57 hrs 53 g Prusa MINI / MINI+



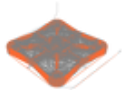
V 0.1

5 files



frame144mm_015mm_petg_mini_8h4m.gcode

PET 0.40 mm 0.15 mm 8.06 hrs 64 g Prusa MINI / MINI+



frame116mm_015mm_petg_mini_7h10m.gcode

PET 0.40 mm 0.15 mm 7.17 hrs 56 g Prusa MINI / MINI+



canopymesh19mm_015mm_petg_mini_2h37m.gcode

PET 0.40 mm 0.15 mm 2.61 hrs 12 g Prusa MINI / MINI+



canopy14mm_015mm_petg_mini_1h4m.gcode

PET 0.40 mm 0.15 mm 1.06 hrs 4 g Prusa MINI / MINI+



canopy19mm_015mm_petg_mini_1h32m.gcode

PET 0.40 mm 0.15 mm 1.54 hrs 6 g Prusa MINI / MINI+

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