



Foldable Drone 400mm

[VIEW IN BROWSER](#)

updated 23. 11. 2023 | published 23. 11. 2023

Summary

a 400mm foldable drone



54.10 hrs



42 pcs



0.20 mm
0.15 mm
0.10 mm



0.40 mm



PET
ABS



574 g



Prusa
MK3/S/S+

[Hobby & Makers](#) > [RC & Robotics](#)

This is a DJI Mavic inspired drone powered by a Pixhawk 4 flight controller. I have attached a parts list for my used components. Therefore, if you want to use different components these might not fit into the 3D model.

With this setup you can achieve a flight time of approx. 12-15 minutes.

A PETG as well as ABS version is provided as pre sliced gcode files.

Enjoy the model and let me know if everything works or anything is unclear.

The evolution of this drone can be found [here](#)

Model files



stl Files

21 files



battery_plate.stl



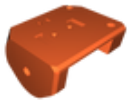
front_arm_left.stl



front_arm_right.stl



gimbal-arm-pitch-clamp.stl



gimbal-arm-pitch.stl



gimbal-arm-roll.stl



gimbal_cover_imu.stl



housing_cover_back.stl



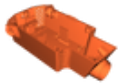
housing_cover_front.stl



landing_pad_front_left.stl



landing_pad_front_right.stl



lower_housing.stl



led_cover_remote_led.stl



locking_pawl_cover_back.stl



logo.stl



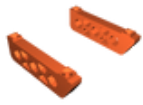
led_cover_gps.stl



rear_arm_left.stl



rear_arm_right.stl



rear_landing_pad.stl



suport_gps.stl

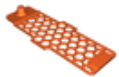


upper_housing.stl



3mf Files

21 files



battery_plate.3mf



front_arm_left.3mf



front_arm_right.3mf



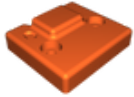
gimbal-arm-pitch-clamp.3mf



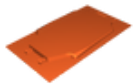
gimbal-arm-pitch.3mf



gimbal-arm-roll.3mf



gimbal_cover_imu.3mf



housing_cover_back.3mf



housing_cover_front.3mf



landing_pad_front_left.3mf



landing_pad_front_right.3mf



led_cover_gps.3mf



led_cover_remote_led.3mf



locking_pawl_cover_back.3mf



logo.3mf

	lower_housing.3mf
	rear_arm_left.3mf
	rear_arm_right.3mf
	rear_landing_pad.3mf
	suport_gps.3mf
	upper_housing.3mf

Print files

 gcode Files ABS 21 files	
	battery_plate_02mm_abs_mk3s_55m.gcode ⚙ ABS ⚙ 0.40 mm ⚙ 0.20 mm ⌚ 0.92 hrs ⚖ 6 g 🖨 Prusa MK3/S/S+



front_arm_left_02mm_abs_mk3s_3h4m.gcode

ABS 0.40 mm 0.20 mm 3.06 hrs 28 g Prusa MK3/S/S+



front_arm_right_02mm_abs_mk3s_3h1m.gcode

ABS 0.40 mm 0.20 mm 3.02 hrs 28 g Prusa MK3/S/S+



gimbal-arm-pitch-clamp_02mm_abs_mk3s_59m.gcode

ABS 0.40 mm 0.20 mm 0.98 hrs 6 g Prusa MK3/S/S+



gimbal-arm-roll_02mm_abs_mk3s_4h26m.gcode

ABS 0.40 mm 0.20 mm 4.44 hrs 35 g Prusa MK3/S/S+



gimbal-arm-pitch_02mm_abs_mk3s_2h44m.gcode

ABS 0.40 mm 0.20 mm 2.73 hrs 24 g Prusa MK3/S/S+



gimbal_cover_imu_02mm_abs_mk3s_15m.gcode

ABS 0.40 mm 0.20 mm 0.26 hrs 1 g Prusa MK3/S/S+



housing_cover_back_015mm_abs_mk3s_3h59m.gcode

ABS 0.40 mm 0.15 mm 3.98 hrs 39 g Prusa MK3/S/S+



housing_cover_front_015mm_abs_mk3s_2h4m.gcode

ABS 0.40 mm 0.15 mm 2.07 hrs 17 g Prusa MK3/S/S+



landing_pad_front_left_02mm_abs_mk3s_1h49m.gcode

ABS 0.40 mm 0.20 mm 1.81 hrs 6 g Prusa MK3/S/S+



landing_pad_front_right_02mm_abs_mk3s_1h49m.gcode

ABS 0.40 mm 0.20 mm 1.81 hrs 6 g Prusa MK3/S/S+



led_cover_gps_015mm_petg_mk3s_4m.gcode

PET 0.40 mm 0.15 mm 0.07 hrs 1 g Prusa MK3/S/S+



led_cover_remote_led_02mm_petg_mk3s_4m.gcode

PET 0.40 mm 0.20 mm 0.06 hrs 1 g Prusa MK3/S/S+



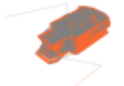
locking_pawl_cover_back_02mm_abs_mk3s_29m.gcode

ABS 0.40 mm 0.20 mm 0.49 hrs 1 g Prusa MK3/S/S+



logo_01mm_abs_mk3s_3m.gcode

ABS 0.40 mm 0.10 mm 0.04 hrs 1 g Prusa MK3/S/S+



lower_housing_02mm_abs_mk3s_12h41m.gcode

ABS 0.40 mm 0.20 mm 12.69 hrs 105 g Prusa MK3/S/S+



rear_arm_left_02mm_abs_mk3s_2h38m.gcode

ABS 0.40 mm 0.20 mm 2.64 hrs 26 g Prusa MK3/S/S+



rear_arm_right_02mm_abs_mk3s_2h39m.gcode

ABS 0.40 mm 0.20 mm 2.64 hrs 26 g Prusa MK3/S/S+



rear_landing_pad_02mm_abs_mk3s_40m.gcode

ABS 0.40 mm 0.20 mm 0.66 hrs 4 g Prusa MK3/S/S+

suport_gps_02mm_abs_mk3s_2m.gcode



ABS 0.40 mm 0.20 mm 0.04 hrs 1 g Prusa MK3/S/S+

upper_housing_02mm_abs_mk3s_10h47m.gcode



ABS 0.40 mm 0.20 mm 10.78 hrs 107 g Prusa MK3/S/S+



gcode Files PETG

21 files

battery_plate_02mm_petg_mk3s_55m.gcode



PET 0.40 mm 0.20 mm 0.92 hrs 8 g Prusa MK3/S/S+

front_arm_left_02mm_petg_mk3s_3h2m.gcode



PET 0.40 mm 0.20 mm 3.03 hrs 35 g Prusa MK3/S/S+

front_arm_right_02mm_petg_mk3s_3h0m.gcode



PET 0.40 mm 0.20 mm 2.99 hrs 35 g Prusa MK3/S/S+

gimbal-arm-pitch-clamp_02mm_petg_mk3s_53m.gcode



PET 0.40 mm 0.20 mm 0.88 hrs 7 g Prusa MK3/S/S+

gimbal-arm-pitch_02mm_petg_mk3s_2h37m.gcode



PET 0.40 mm 0.20 mm 2.61 hrs 29 g Prusa MK3/S/S+

gimbal-arm-roll_02mm_petg_mk3s_4h24m.gcode



PET 0.40 mm 0.20 mm 4.40 hrs 43 g Prusa MK3/S/S+



locking_pawl_cover_back_02mm_petg_mk3s_28m.gcode

PET 0.40 mm 0.20 mm 0.46 hrs 2 g Prusa MK3/S/S+



gimbal_cover_imu_02mm_petg_mk3s_14m.gcode

PET 0.40 mm 0.20 mm 0.24 hrs 1 g Prusa MK3/S/S+



housing_cover_back_015mm_petg_mk3s_3h58m.gcode

PET 0.40 mm 0.15 mm 3.97 hrs 47 g Prusa MK3/S/S+



landing_pad_front_left_02mm_petg_mk3s_1h35m.gcode

PET 0.40 mm 0.20 mm 1.59 hrs 8 g Prusa MK3/S/S+



housing_cover_front_015mm_petg_mk3s_2h2m.gcode

PET 0.40 mm 0.15 mm 2.03 hrs 21 g Prusa MK3/S/S+



landing_pad_front_right_02mm_petg_mk3s_1h36m.gcode

PET 0.40 mm 0.20 mm 1.59 hrs 8 g Prusa MK3/S/S+



led_cover_gps_015mm_petg_mk3s_4m.gcode

PET 0.40 mm 0.15 mm 0.07 hrs 1 g Prusa MK3/S/S+



led_cover_remote_led_02mm_petg_mk3s_4m.gcode

PET 0.40 mm 0.20 mm 0.06 hrs 1 g Prusa MK3/S/S+



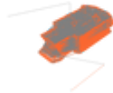
logo_01mm_petg_mk3s_2m.gcode

PET 0.40 mm 0.10 mm 0.04 hrs 1 g Prusa MK3/S/S+



rear_arm_left_02mm_petg_mk3s_2h38m.gcode

PET 0.40 mm 0.20 mm 2.63 hrs 32 g Prusa MK3/S/S+



lower_housing_02mm_petg_mk3s_12h32m.gcode

PET 0.40 mm 0.20 mm 12.53 hrs 128 g Prusa MK3/S/S+



rear_arm_right_02mm_petg_mk3s_2h38m.gcode

PET 0.40 mm 0.20 mm 2.64 hrs 32 g Prusa MK3/S/S+



rear_landing_pad_02mm_petg_mk3s_39m.gcode

PET 0.40 mm 0.20 mm 0.65 hrs 4 g Prusa MK3/S/S+



suport_gps_02mm_petg_mk3s_2m.gcode

PET 0.40 mm 0.20 mm 0.04 hrs 1 g Prusa MK3/S/S+



upper_housing_02mm_petg_mk3s_10h44m.gcode

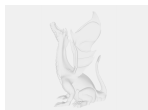
PET 0.40 mm 0.20 mm 10.73 hrs 130 g Prusa MK3/S/S+

Other files



Assembly drawings

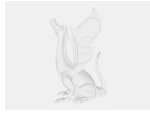
7 files



drone_mk14_pre-assembly_front_arms-v1.pdf



drone_mk14_pre-assembly_rear_arms-v6.pdf



drone_mk14_pre-assembly_gimbal-v2.pdf



drone_mk14_pre-assembly_housing_cover_front-v1.pdf



drone_mk14_pre-assembly_lower-housing-assembly-v4.pdf



drone_mk14_pre-assembly_upper-housing-assembly-v3.pdf



drone_mk14_assembly_complete-v1.pdf



drone_mk14_parts_list.pdf

License ©



This work is licensed under a
Creative Commons (4.0 International License)

Attribution—Noncommercial—Share Alike

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✗ | Commercial Use
- ✗ | Free Cultural Works
- ✗ | Meets Open Definition

