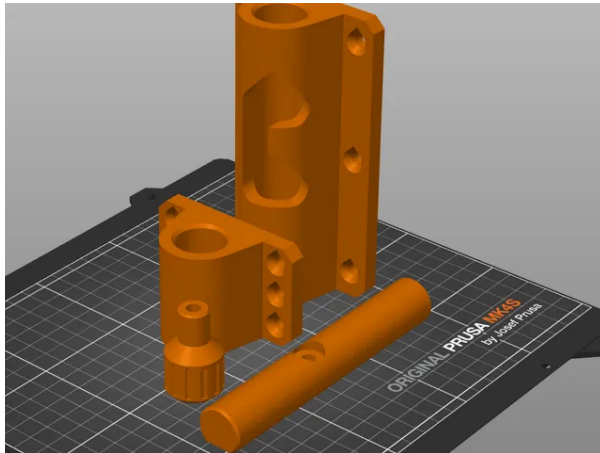




Heavy-Duty Outdoor Barrel Bolt Door Latch



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Summary

Heavy-duty outdoor slide bolt latch for doors and gates. 22mm solid bolt, gravity lock.



4.81 hrs



1 pcs



0.25 mm



0.40 mm



PET



247 g



Prusa MK4S

[Household](#) > [Outdoor & Garden](#)

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This is a heavy-duty, 3D-printable barrel-bolt latch for outdoor doors and gates, designed for the Prusa MK4S. A solid 22 mm bolt slides 40 mm through a 140 mm housing and engages 28 mm into an open-through keeper on the frame.

To lock it, slide the knob, then rotate it 60° down into a notch at either end of its travel. Gravity holds it there, as long as the latch is mounted with the notches facing down.

The design is built for strength and outdoor durability:

- **Layer orientation:** The housing and keeper print standing on end, so door-pull and prying loads run within the layers rather than across them.
- **Solid bolt:** The bolt prints as concentric perimeters along its length, the strongest direction for bending.
- **Steel-reinforced knob:** A stainless M6 screw runs through the knob stem and clamps it into the bolt.
- **Water drainage:** The keeper is open at the back, so water and debris pass through instead of collecting.
- **Supports:** No part needs supports.

The parts are best printed in PETG, or in ASA if you have an enclosure.

Specifications

- Assembled length: 200 mm, which is the 140 mm housing, a 10 mm door gap, and the 50 mm keeper
- Width: 78 mm (mounting plates)
- Height off the door: 42 mm at the tube, and about 71 mm to the knob top when the knob is upright
- Bolt: 22 mm diameter, 40 mm throw, 28 mm engagement
- Print weight: about 346 g of PETG total (housing 199 g, keeper 74 g, bolt 58 g, knob 15 g)
- Print time: about 7 h on one plate with the included 0.25mm SPEED project

Required hardware (stainless steel, A2 or A4 for outdoor use)

Knob assembly:

- 1× M6 × 35 socket head cap screw (ISO 4762 / DIN 912)
- 1× M6 nyloc nut (DIN 985)

Mounting, 12 total (6 for the housing, 6 for the keeper):

- **Wood door or frame:** 12× #10 or 5 mm countersunk (flat-head) wood screws, at least 40 mm long. The plates are 8 mm thick, so 50 mm screws are a good choice.
- **Through-bolting (strongest):** 12× M5 countersunk machine screws (ISO 10642 / DIN 7991), sized to your door thickness plus 8 mm, each with a washer and an M5 nyloc nut on the far side.

The holes are 5.5 mm clearance with a 90° countersink for heads up to 11 mm.

Model files



heavy-duty-latch.3mf



latch_bolt.stl



latch_knob.stl



latch_keeper.stl



latch_housing.stl



heavy_duty_latch.scad

Print files



big-door-latch_04n_025mm_petg_mk4s_4h49m.bgcode

 PET  0.40 mm  0.25 mm  4.81 hrs  247 g  Prusa MK4S

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