

vertical blinds motor with D1 mini + OLED

B Buzz

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Summary

I took the base idea from the "automatic blinds controller" and adapted it to my means. Vertikal blinds, 9mm distance...

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I took the base idea from the "automatic blinds controller" and adapted it to my means.

Vertikal blinds, 9mm distance chain, no Alexa but sensor control

With two light sensors I can define half sun and full sun. There are 3 positions of the blinds - open, half closed, closed.

Feedback-loop with a 10times 10k Poti, connected via tooth belt for position control

user interface with 0,96" OLED display and 3 buttons

see attached arduino program (.ino) for inspiration on cabeling

I attached the solidWorks Models and Step files, so you can modify it.

Used parts:

Light sensors: https://www.amazon.de/gp/product/B07DP1YM5X/ref=ppx_yo_dt_b_asin_title_o04_s00?ie=UTF8&psc=1

cable + connector for light sensors: https://www.amazon.de/gp/product/B09R1VJR2F/ref=ppx_yo_dt_b_asin_title_o05_s01?ie=UTF8&psc=1

Poti: https://www.amazon.de/gp/product/B0855MQC7W/ref=ppx_yo_dt_b_asin_title_o06_s00?ie=UTF8&psc=1

gear motor 6V https://www.amazon.de/Drehzahlreduzierung-Elektrischer-Getriebemotor-Torsionsmotor-Schneckenschneckengetriebemotor/dp/B08CHGVPBH/ref=sr_1_56?__mk_de_DE=%C3%85M%C3%85%C5%BD%C3%95%C3%91&crid=2375M3I7VVGYE&

Motor driver (2channel) https://www.amazon.de/gp/product/B01KBTNHS6/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

toothed belt GT2 6mm 130mm https://www.amazon.de/gp/product/B07572W1YM/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

0,96" OLED https://www.amazon.de/gp/product/B09N77D3DK/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

Power supply: 6V 500mA AC-DC adaptor

Controller: Wemos D1 Mini

Category: Household

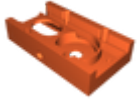
Model files



blind_footdistance.stl



blind_clip_footing.stl



blind_motorsupport.stl



blind_footing.stl



blind_drivewheel.stl



blinds-potitensioner.stl



blind_cover_sensor.stl



blind_housing.stl



blind_motorstep.step



blind_coverelectronics.stl



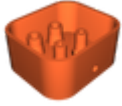
blinds_endpiece.stl



blind_wheelpoti.stl



blind_clip_sensor.stl



lightsensor_body.stl



blind_buttonsupport.stl

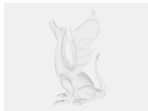


blind_coverwheel.stl



lightsensorstep.step

Other files



blinds_controller_v5.ino

[Find source .stl files on Thingiverse.com](#)

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