**RULES:**

**Bold:** title, divide by modules

<hyperlink>: link to store

normal font: required parts

~: indicate required operations. Do not repeat if mentioned above.

~~Deleted~~: will not use, for recording purpose only.

√: acquired

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**Structure**

~~Steel angles~~

[Bolts and nuts](https://www.amazon.co.uk/Stainless-Precise-Tapping-Washers-Assortment/dp/B08N3WPL1R/ref=sxin_14_pa_sp_search_thematic_sspa?adgrpid=115567676767&content-id=amzn1.sym.ed94a84d-01c5-411d-90e9-ce9c1c7b2e82%3Aamzn1.sym.ed94a84d-01c5-411d-90e9-ce9c1c7b2e82&cv_ct_cx=multipack%2Bnuts%2Band%2Bbolts&gclid=Cj0KCQjwmdGYBhDRARIsABmSEeOq-ZuSzd-GA5MvWVDtiMugM09fJsREkxANU0XIY-aRq3TZONO4BMYaAvbNEALw_wcB&hvadid=592973412166&hvdev=c&hvlocphy=1006598&hvnetw=g&hvqmt=e&hvrand=13140702352059705526&hvtargid=kwd-880670244168&hydadcr=22583_2214456&keywords=multipack%2Bnuts%2Band%2Bbolts&pd_rd_i=B08N3WPL1R&pd_rd_r=ea6ac83d-e85c-4ce9-a842-d3f6e79a541a&pd_rd_w=fxfPs&pd_rd_wg=jBJ4X&pf_rd_p=ed94a84d-01c5-411d-90e9-ce9c1c7b2e82&pf_rd_r=AF9WKRX42ERZND6PSP2X&qid=1662283325&sr=1-1-b75715df-0cbd-4312-a971-de5362256967-spons&th=1)

~ Cutting

**Charging system**

Momentum wheel

[DC brushless motor](https://www.maxongroup.com/maxon/view/product/339286) (with sensor)

[Motor control](https://www.maxongroup.com/maxon/view/product/control/Positionierung/367661)

~~Gear~~

[bearing](https://uk.rs-online.com/web/p/ball-bearings/1440834)

bearing housing (3D print)

~ Drilling, 3D printing

**Braking system**

[Gear Rack](https://uk.rs-online.com/web/p/gear-racks/1827858?cm_mmc=UK-PLA-DS3A-_-google-_-CSS_UK_EN_Mechanical_Power_Transmission_Whoop-_-Gear+Racks_Whoop-_-1827858&matchtype=&pla-300400303830&cq_src=google_ads&cq_cmp=12814832398&cq_term=&cq_plac=&cq_net=g&cq_plt=gp&gclid=Cj0KCQjwr4eYBhDrARIsANPywCiryagycTmytEPKE6IaNPlsm7Dfk8f31DFT7FBTo0WtTeoF4eK13UoaAvxnEALw_wcB&gclsrc=aw.ds) module ?

[Linear rail guide](https://www.amazon.co.uk/Miniature-Bearing-Sliding-Printer-Machine/dp/B08PCQ9528/ref=sr_1_11?crid=RHNHSUVOPUES&keywords=Linear+Bearings+Linear+Rail+Guide&qid=1661180850&sprefix=linear+bearings+linear+rail+guide%2Caps%2C76&sr=8-11)

[Servo](https://uk.rs-online.com/web/p/servo-motors/7813046)

~~Linear actuator~~

**Control system**

Raspberry Pi Zero 2 W √

Micro SD card + reader

[Gyroscope MPU6050](https://www.amazon.co.uk/mpu6050/s?k=mpu6050)

Power source (battery/USB)

~ Soldering