

10.0 Parts list

10.1 Version control

Version 1.0 - 2 February 2021 - first version

Version 1.1 - 9 February 2021 - typos fixed

10.2 Introduction

This is the parts list of all critical components. Resistors, capacitors, wires, mounting brackets, nuts and bolts et cetera are not detailed for now.

10.3 Electronics

| | | |
|---------------------------|---|--|
| raspberry pi | 6 | RPI Zero W, any type will do as long as it has WiFi |
| motor HAT | 6 | Adafruit DC & Stepper Motor HAT for Raspberry Pi - Mini Kit |
| 40 pin male header | 6 | to mount the HAT to the RPI |
| SD kaart 16 gig | 6 | preferably industrial grade |
| motor HAT | 6 | NEMA17 |
| local power supply | 6 | L7805CP, 1.5 A |
| local reed switch | 6 | preferably in plastic case because switches are vulnerable as they are made from glass |
| magnets | 6 | small and flat |
| GT2 pulley | 6 | to mount to NEMA17 |

This is for all 6 planets the same:

10.4 Frame

| | | |
|-----------------------------|---|--|
| power supply 12V 10A | 1 | 220 VAC input, 12VDC 10 A output |
| copper tape | 1 | CFT-25/33M copper tape CFT25 (l x b) 33 m x 25 mm 33 meter |

10.5 Outer planets

| | | |
|--|---|---|
| copper wire | 1 | Kabeltronik copper wire woven band, 1 meter will do |
| GT2 belt | 3 | mars, jupiter and saturn |
| set of 1 axle and 2 front wheels and pulley | 3 | any wheel will do |
| set of 2 rear wheels | 3 | any wheel will do |

10.6 Inner planets

| | | |
|-------------------|---|--------------------|
| GT2 belt | 2 | earth and venus |
| GT2 pulley | 2 | to propel the dish |

10.7 Other materials

Furthermore: you need to think with what material you want to build your frame, lightning of the DMO if needed, paint, graphics etc.

You lift your DMO manually or do you have otherwise access? If you need a winch you have to figure out that construction as well.

10.8 Costs

The DMO as pictured on the website has roughly about 4500 euro of materials and services (mostly CNC cutting of the orbits) in it.

That is if you do not brake anything along the project....