

# Part lists

## Frame:

- 4x 800mm length piece
- 4x 900mm length piece
- 4x 1200mm length piece
- 4x 3-way corner connector pieces
- 12x M8x30 hex-key bolts
- 4x plastic covers for 3-way corner pieces
- 8x 90° profile connector pieces
- 4x profile end cover pieces

## Movement system:

- 2x Trinamic PD42-3-1141
- 1x some stepper motor found at sähköpaja
- 2x sliders for i-type aluminium profile
- 6x micro switches for limit switches
- 35mm Jopo quick release seat fastener
- 400\*17mm aluminium pipe
- 15.5\*25\*8mm Linear bearing
- 4x 15\*24\*8mm Linear bearing
- 6x 24 tooth 3M pulleys with 8mm bore
- 2x 24 tooth 3M pulleys with 6mm bore
- 2x 6mm into 5mm pulley bore reducer
- 3M 88 tooth timing belt
- 7m piece of 3M timing belt cut into suitable length pieces
- 2x 915\*8mm round steel shaft
- 2x 850\*8mm round steel shaft
- 891\*8mm round steel shaft
- 108\*8mm round steel shaft
- 15\*8mm round steel shaft
- 2x aluminium mounts for support rail
- 3d printed pieces (see sensor\_testing\_rig\_asm.stp for details)
- 3mm acrylic laser cut pieces (see sensor\_testing\_rig\_asm.stp for details)
- Lots of nuts and bolts

## Testin unit:

- 3 mm acrylic (plastic).
- 0.6 mm PCB
- Pin header 1\*5 (R2.54)
- P0900 analog micro servo (K-Power).
- Aluminium rod (diameter 19 mm or larger).
- 33 ohm resistor (Royal Ohm).
- 3 mm threaded rod (steel).

- 2x M2\*10mm screw
- 2x M2 nut
- 2x M3\*4mm screw
- 4x M3 nyloc nut
- 2x M4\*20mm screw (countersunk head)
- M4 nyloc nut
- M4 nylon tightening nut
- small zip tie
- heat-shrink tubing
- 0.8 mm steel wire (to attach head to the servo)
- insulated copper wire
- 3x small neodym magnets

Base plate:

- 64x avx 3 way 9155 standard battery connector
- 32x 0.5A reed switch
- 32x 1A reed switch
- 64 magnets
- 4x backbone pcb
- 32x mounting slot pcb
- 8 core flat cable
- 32 core flat cable
- cable
- laser cut acrylic pieces
- 32x cat shaped handles