**零部件清单**

**步进电机：**

Nema 8 (8HS13-0604S) 33mm, stepperonline, 4mm shaft, x1 unit (16.00)

20步进电机，33mm高，轴径4mm，1个

Nema 11 (11HS12-0674S) 31mm, stepperonline, 5mm shaft, x2 units (22.22)

28步进电机，31mm高，轴径5mm，2个

Nema 17 (17HS19-0854S) 48mm, stepperonline, 5mm shaft, x1 unit (9.48)

42步进电机，48mm高，轴径5mm，1个

Nema 23 (23HS30-2804S1) 76mm, stepperonline, 6mm shaft, x2 units (40.30)

57步进电机，76mm高，轴径6mm，2个

**同步带：**

A 6R51M087060, 87 teeth GT2 2mm, 6mm wide timing belt, sdp-si, x2 units (10.26)

GT2 2mm，172mm长，6mm宽同步带，2个

A 6R51M139060, 139 teeth GT2 2mm, 6mm wide timing belt, sdp-si, x1 units (5.55)

GT2 2mm，280mm长，6mm宽同步带，1个

A 6R53M128090, 128 teeth GT2 3mm, 9mm wide timing belt, sdp-si, x1 units (10.06)

GT2 2mm，260mm长，6mm宽同步带，1个

A 6R53M152090, 152 teeth GT2 3mm, 9mm wide timing belt, sdp-si, x1 units (10.67)

GT2 2mm，302mm长，6mm宽同步带，1个

**同步轮：**

GT2 Pulley (20 Tooth), GT2 2mm, 20 teeth, 5mm bore, e3d-online, x3 units (13.41)

GT2同步轮，20齿，5mm轴孔，3个

A 6A53M020DF0906, GT2 3mm, 20 teeth, 6mm bore, sdp-si, x2 units (16.12)

GT2同步轮，20齿，6mm轴孔，2个

**轴承：**

Ball Bearing, 21x15x4mm, hobbyking, x3 units (7.21)

薄壁轴承，6702ZZ，21x15x4m，3个

Ball Bearing, 16x8x5mm, amazon, x3 units (5.00)

薄壁轴承，688ZZ，16x8x5mm，3个

Ball Bearing, 8x3x3mm, BR030803, hobbyking, x4 units (6.64)

### 微型轴承MR83ZZ，8x3x3mm，4个

Q6000ZZ, 26x10x8mm, hpceurope, x2 units (6.62)

深沟球轴承，6000ZZ，26x10x8mm，2个

Q625ZZ, 16x5x5mm, hpceurope, x4 units (13.00)

深沟球轴承，625ZZ，16x5x5mm，4个

Q6001ZZ, 28x12x8mm, hpceurope, x2 units (6.62)

深沟球轴承，6001ZZ，28x12x8mm，2个

TB51102, 28x16x28x15x9mm, hpceurope, x2 units (5.00)

推力球轴承，51102,28\*15\*9mm，2个

**碳纤维板：**

Cut from carbon fibre sheet (3mm and 4mm) (could be printed from high stiffness plastic)

Axis3part1 (3mm thickness), famoushobby, x2 units (23.04)

Axis2part1 (4mm thickness), famoushobby, x2 units (33.24)

Axis1part2 (4mm thickness), famoushobby, x2 units (53.52)

**螺栓、螺母、垫圈：**

M2x8mm + M2 nut, x1 set

M2x6mm, x4 units

M3x25mm + M3 nut, x1 set

M2.5x8mm + M2.5 washer, x8 sets

M2x12mm + M2 nut, x3 sets

M2x10mm + M2 nut, x1 set

M3x12mm + M3 washer + M3 nut, x12 sets

M3x30mm + M3 washer + M3 nut, x2 sets

M3x20mm + M3 washer + M3 nut, x2 sets

M3 washer, x10 units

M3x25mm + M3 washer, x4 sets

M3x20mm + M3 washer + M3 nut, x4 sets

M3x10mm + M3 washer + M3 nut, x1 set

M3x30mm + M3 washer + M3 nut, x4 sets

M4x12mm + M4 washer + M4 nut, x8 sets

M5 washer, x10 units

M5x50mm + M5 washer + M5 nut, x8 sets

M5x50mm + M5 washer + M5 nut, x4 sets

M5x35mm + M5 washer + M5 nut, x4 sets

M3x12mm + M3 washer + M3 nut, x2 sets

M5x40mm + M5 washer + M5 nut, x1 set

M3x16mm + M3 washer + M3 nut, x2 sets

M5x50mm + M5 washer + M5 nut, x4 sets

M5x10mm + M5 washer, x12 sets

M5x20mm + M5 washer, x2 sets

M5 threaded standoff, OD: 8mm, length: 20mm, x7 units

M5 螺纹支架，8mm，20mm长，7个

**其它零件：**

Magnets 6mm diameter and 2mm height, local hardware store, x2 units

磁铁：直径6mm，高2mm，2个

DP2.0-6/B, dowel pin 2x6, hpceurope, x4 units

定位销：2\*6，4个

Tube: 8mm OD, 6mm ID, 70mm length, swagelok

热缩管：8mm，70mm长

Tube: 10mm OD, 8mm ID, 115mm length, swagelok

热缩管：10mm，115mm长

Tube: 12mm OD, 10mm ID, 106mm length, swagelok

热缩管：12mm，106mm长

Silicon insulated high quality wires

硅绝缘优质电线

Rubber feet with the M3 screws + M3 washer + M3 nut, x4 sets

橡胶脚垫，带M3螺栓、垫圈、螺母，4套

**其它工具：**

3D打印机

螺丝刀