EZ Energy Chain System®
with 2 Mounting Brackets
(77 Individual Links)

Also known as:
ROBOTICS "CRACK" !!

Very Addictive!

igus

BEST KIT-OF-PARTS GUIDE
**BEST KIT-OF-PARTS GUIDE**

**Version 02: Carriages with threaded boss**

**Data:**
- Part No. carriage: NW-02-27(P)
- Part No. rail: NS-01-27
- Rail weight: 3.01 oz. (290 g/m)
- Carriage weight: .114 oz. (1.25 g)
- Max. rail length: 140 in (3560 mm)
- Standard bore pattern: symmetrical (C5 = C6)
- Preload available: Yes
- For reduced clearance: .22 lbs (1N)

**igubal® Flange Mount Spherical Bearing x6**

**igubal® Pillow Block Mount Spherical Bearing x6**

**Dryline® Low Profile Linear Guide system x2**

**Dryline® S ¼" Diam. Hard Anodized Aluminum Shaft, 18" Length x2**
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1/4" thick polypropylene sheet 12" x 24"

1/8" thick PVC sheet 12" x 24"

Plastic
0.063" thick Aluminum sheet 12" x 24"

1/2" thick Aluminum Flat 2" x 12"

0.5" Diameter Aluminum Round, 24" long

0.25" Diameter Steel Round, 24" long x2

0.063" Diameter Piano Wire, 24" long x3
1/2" thick Plywood 2' x 4'

3/8" thick Plywood 2' x 4'

1/4" thick Plywood 2' x 4'

1" x 4" whitewood 2 ft long x2

1/4" x 48" hardwood dowel

Lumber
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**PVC**

1/2" sched 40 PVC pipe x 5' x4
3/4" sched 40 PVC pipe x 5' x2
1" sched 40 PVC pipe x 5' x2

4" PVC Solid Sewer Pipe x 3'

Regular PVC Cement, 4 oz or 8 oz

1/2" PVC 90 degree elbow x10
3/4" PVC 90 degree elbow x10
1" PVC 90 degree elbow x6

1/2" PVC tee x10
3/4" PVC tee x10
1" PVC tee x6
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2.5" x 5/8", Iron ZN, Corner Angle Bracket x4

2" x 3/8", Iron ZN, Flat Angle Bracket x4

2.5"H x 1.69"W x 0.083" narrow hinge w/removable pin x2

1.5"H x 1.41"W x 0.047" narrow hinge w/nonremovable pin x2

Extension Spring for Heavy Doors

3/4" metal pipe hanger tape, 24 Gauge, 10 ft.

6" x 6" Steel Turn-table, 500 Pound Capacity
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- **18 ga stranded copper wire**, red insulation, single cond. 16 ft
- **18 ga stranded copper wire**, black insulation, single cond. 16 ft
- **CAT-3 24 guage, 4 twisted pairs** 12 ft

**Electrical**

- **Insulated Double Crimp**
  - snap-plug terminals (bullet connectors), insulated, male  x16
  - snap-plug terminals (socket for bullet connectors), insulated, female  x16
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- Rotary potentiometer 10kohm, 6mm shaft x2
- Sub-mini snap acting switch, SPDT, 0.1 amp (min) x4
- Heat shrink tubing, 1/4" OD expanded, 2:1 ratio, polyolefin, black 2 ft
- 11" long x 0.18" wide nylon cable tie x10
- 4" long x 0.1" wide nylon cable tie x20

Electrical
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- Vinyl electrical tape, 3/4" Wide, 60 ft
- Friction tape, 3/4" Wide, 60 ft
- All purpose duct tape, 2" Wide, 60 yd
- Painter's tape, 1" Wide, 60 yd
- Carpenter's wood glue, 4 oz
- 5 minute epoxy, 1 oz

Tapes & Adhesives
Threaded Fasteners

- **Phillips Drive**
  - **PAN HEAD**
  - **ROUND HEAD**
  - **FLAT HEAD**

**Threaded Fasteners**

- **MACHINE SCREWS (BOLTS)**
- **WOOD SCREW**
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- **HEX HEAD**
- **Hex / Slotted Drive**
- **ROUND HEAD**
- **Slotted Drive**

**Threaded Fasteners**

- **SHEET METAL SCREW**
  (WORKS WELL IN WOOD!)
- **WOOD SCREW**
NOTE: Use of a *slotted* screwdriver is **NOT RECOMMENDED!!**

The slot is shallow and strips out easily!

Use a Nut Driver on the hexagonal head!

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Hex / Slotted Drive

**Hex HEAD**

**Threaded Fasteners**
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1/4-20 Threaded Rod, 3' long
1/4-20 Hex Nut, steel x25
1/4 SAE flat washer, steel x25
1/4 med. split lock washer, steel x25

1/4-28 x 1” screw, nylon x6
10-32 x 1-1/2" machine screws, steel, round head, phillips x25
#10-32 machine screw nut, steel x25
#10 flat washer, steel x25

#8-32 x 1-1/4" machine screws, steel, pan head, phillips x100
#8-32 machine screw nuts, steel x100
#8 med. split lock washer, steel x25
10-32 x 3/4” screw, socket head x6

Threaded Fasteners
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- **#4-40 x 1" machine screws, steel, round head, phillips** x25
- **#4-40 machine screw nut, steel** x25
- **#2-56 x 1" machine screws, pan head, phillips, stainless** x10
- **#2-56 machine screw nuts, 3/16 x1/16, steel** x10
- **#2 flat washer, steel** x10

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**Threaded Fasteners**
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Wood screw eyebolts, 0.192 wire dia x .97 shank x .75 thread x .27 id, steel x10

#8 X 1" sheet metal screw, steel, hex head x100

#6 X 1" wood screws, steel, flat head x100

#4 X 3/4" wood screw, steel, slotted drive, round head x25

Threaded Fasteners
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3/4" nylon sticky back hook and loop fastener 5 ft

#18 twisted nylon seine twine, 225-250 ft long

1/4" polypropylene covered shock cord (color optional) 4 ft

3/8" thick, 1" wide, adhesive backed, gum rubber strip 2 ft

Miscellaneous
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bicycle inner tube
(26" X 1.5" - 2.0")

60x65" universal brake
cable with housing
(white or black)

#10 Rubber Band (1/16" wide x 1-1/4" long)  x25
#32 Rubber Band (1/8" wide x 3" long)  x25

1 1/4" long paper clips,
0.033 dia wire (No. 1 Regular)  x100

VEX motor mount kit
(4 mounts+ screws)

Miscellaneous