

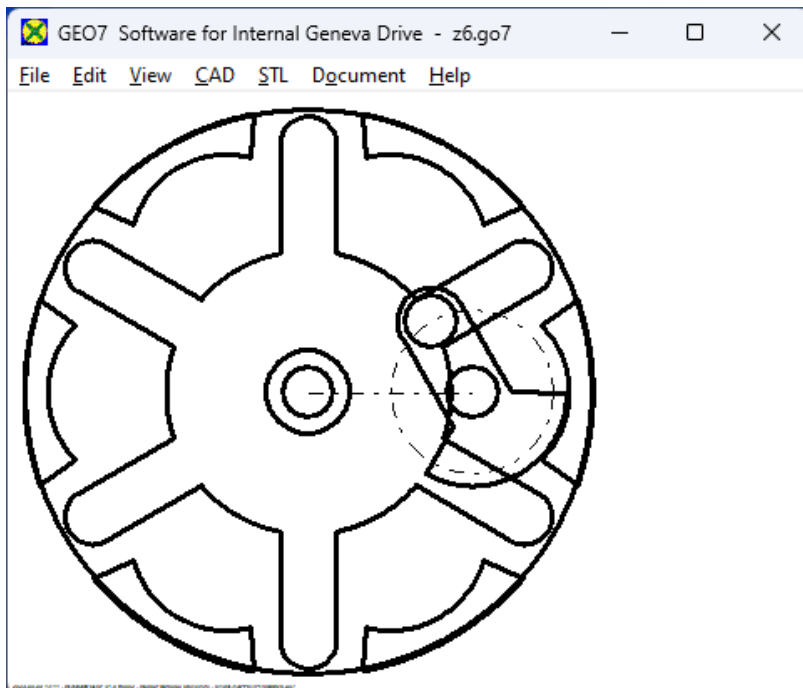
GEO7



Geneva mechanism inner Maltese drive design software

for Windows

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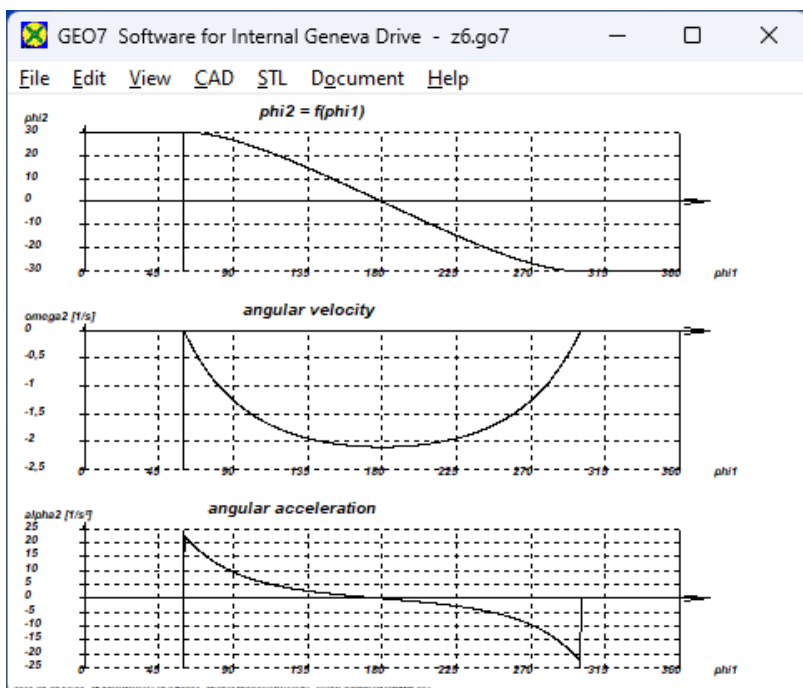


Calculation and Design of Geneva mechanism

GEO7 calculates dimensions, operation angle, velocity and acceleration of inner Maltese cross gears. GEO7 generates drawings of inner Maltese cross wheel and driving crank as DXF or IGES files to be used with your CAD software. The component parts can be generated as STL files, then printed on a 3D printer and assembled as functioning model of an inner Geneva mechanism.

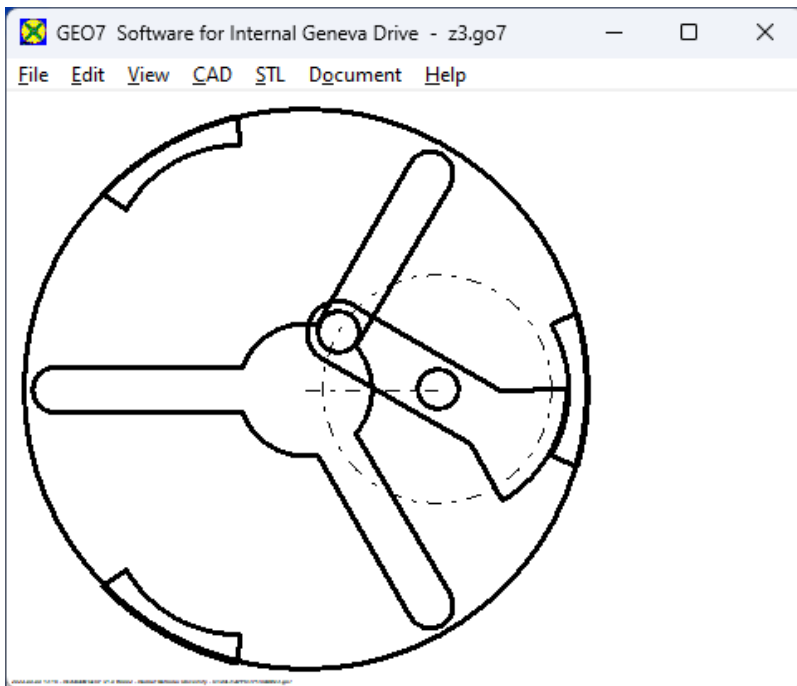
Dimensions

Number of slots in the inner Maltese cross may be 4, but also any number between 3 and 100. Size of the Geneva mechanism can be defined either by external diameter of the Maltese cross or by center distance. Then enter width of slots and driving bolt diameter. Dimensions of arc segments used as locking device are calculated by GEO7, just enter minimum wall thickness at slots and clearance between arc segments of Maltese cross and driving wheel.



Parameter	Value	Unit
slot number z	6	
Cutting track radius drive	r1: 6,35	mm
Center distance	a: 12,7	mm
diameter bolt dR	4,1	mm
width slot bR	4,3	mm
Outer diameter Maltese wheel de2	44	mm
wall thickness driving wheel s1	0,6	mm
height slot Maltese wheel h2m	3	mm
height ground body h2g	4	mm
height driving wheel h1	4	mm
borehole diameter Maltese wheel dB2	4,1	mm
borehole diameter driving wheel dB1	4,1	mm

Buttons: OK, Cancel, Help, mm <-> inch, Calc



Diagrams

Angle of rotation of the Maltese cross as function of the driving wheel as well as velocity and acceleration over one revolution can be shown as diagram.

Animation

Rotation on inner Maltese wheel and driving crank can be simulated on screen as animation.

Text Output

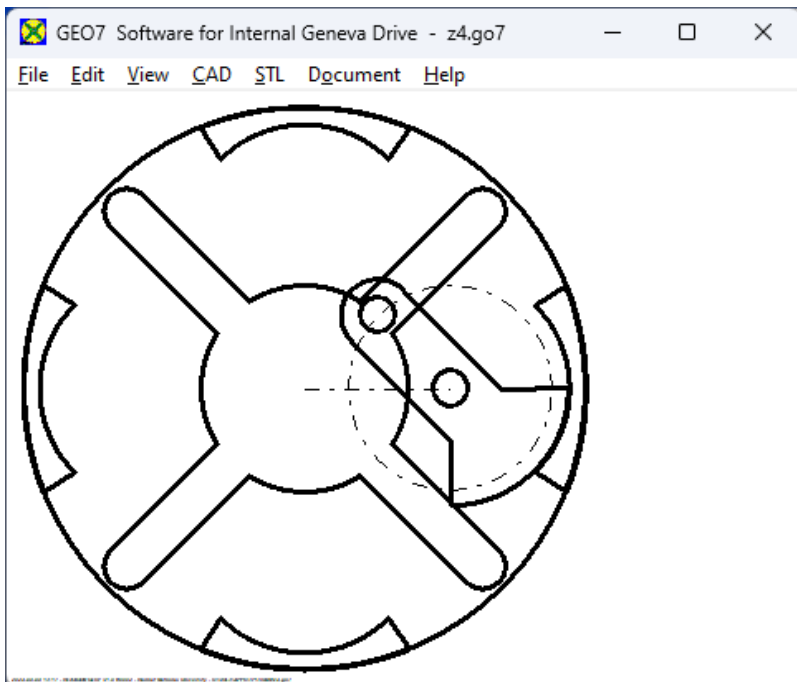
Input data and calculation results may be printed, saved as text file or HTML file, or exported to MS Excel via OLE interface.

Graphics Output

Drawings and diagrams can be printed on any Windows printer, or exported to CAD.

CAD Interface

Drawing of inner Maltese wheel, driving crank, diagrams and tables can be exported as DXF- or IGES files, and opened in CAD. Layers, colours and text font can be configured in GEO7.



STL Interface

Inner Maltese wheel, driving crank, bearing plate and spacer sleeve can be generated as STL file and produced with 3D printer. This way you can assemble a Geneva mechanism with the printed parts, just to be completed with metal bolt and shafts.

HEXAGON Help System

GEO7 provides help text and auxiliary images. Warnings and error messages occur if exceeding a limit. For every error message you can have a description and remedy suggestion.

Units

Units can be switched between metric (mm) and imperial (inches).

Export Formats

DXF, IGES, STL, HTML, TXT, Excel, GO7.

Import Formats

TXT, Excel, GO7.

System Requirements

GEO7 is available as 32-bit app or as 64-bit app for Windows 11, Windows 10, Windows 7.

Scope of Delivery

Program with user manual (pdf), example applications and help images, non-expiring perpetual license.

Guarantee

HEXAGON gives a 24 month guarantee on full functionality of the software. We provide help and support by email without extra charge.

