# Data Sheet
GearTrax

Camnetics
INCORPORATED

GearTrax™ provides the designer with an easy to use tool for creating solid models of drive components. It's intuitively easy to use for the designer with limited gear experience yet powerful enough for the gear expert. More than a library program, GearTrax™ creates each part model with its specific requirements, just as a designer would, but takes seconds rather than hours or days.
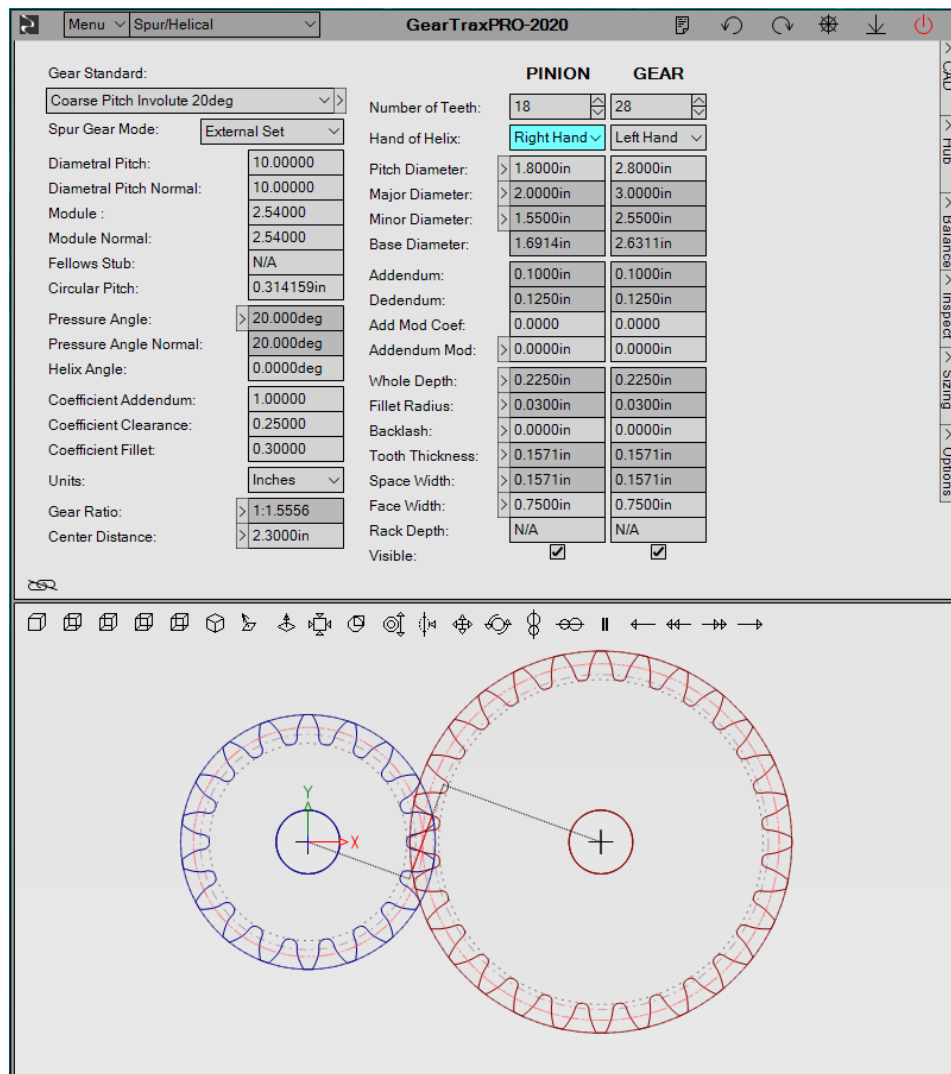
FEATURES:

▪ Intuitive and simple, yet powerful

▪ Diametral and Module pitches

▪ International standards supported

▪ Plastic gear standards

▪ True involute tooth profiles

▪ Cycloidal (clock) tooth profiles

▪ Automatic addendum modification

▪ User control of all gear properties

▪ Mounting hubs and counter bores

▪ ANSI, BS & DIN keyway options

▪ Very affordable

POINT AND CLICK TO CREATE:

▪ Spur and Helical Gears

▪ Internal Gear Sets

▪ Bevel Gear Sets

▪ Worm Gears

▪ Involute Splines

▪ Timing Belt Pulleys

▪ Chain Sprockets

▪ V-Belt Pulleys

▪ Cycloidal Drive Gears

▪ Elliptical Gears

▪ 100's of Mounting Styles

GearTrax™ is an object oriented/property driven gear design program. It is not the intent of GearTrax to replace your CAD system but to augment the CAD system with a user interface that will allow the gear designer to accurately visualize the components before they are modeled in the CAD system.

GearTrax™ is available as an add-on for SOLIDWORKS, Autodesk Inventor and Solid Edge and can also be used standalone. Several different network license options are available for GearTrax™. We also offer a PRO version of GearTrax™ which includes additional features. **Free 10 day trials are available on our website.**

GearTrax™ is programmed in the USA using 100% renewable energy.

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"GearTrax is a great addition to my tools. I have saved more time than I care to think of had I not had this available. I'm designing a remote control car right now, and I don't even think about the gear design portion of this. It's about as intuitive as it could be, and with the animation, fantastic. "

"I have been recommending your products all over the company for years. Everyone here loves them (especially GearTrax).   It lets even our industrial designers design gears."

"I have GearTrax working. I'm just looking at a Spline that has been generated directly inside SOLIDWORKS. Pretty impressive software."

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ABOUT US
Camnetics, Inc. is dedicated to improving the way automation components are designed.

CERTIFIED Solution Partner
DS SOLIDWORKS

alignex

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Gear Design Software

Software Feature	GearTrax	GearTraxPRO	GearTeq
Add-on for SolidWorks	Yes	Yes	Yes
Add-on for AutoDesk Inventor	Yes	Yes	Yes
Add-on for Solid Edge	Yes	Yes	Yes
User customizable interface		Yes, label text	Yes
Customizable Font and Color Styles	2018	2018	
Multiple Components	Limit 2	Limit 2	Unlimited
Multiple Components on a single CAD part			Yes
Modifying CAD parts		Yes	Yes
Internal Spline as a bore on CAD part		Yes	Yes
Create CAD assemblies	Yes	Yes	Yes
Planetary wizard			Yes
High ratio cycloid gear set (involute teeth)			Yes
On screen animations	Yes	Yes	Yes
Design alerts	2018	Yes	Yes
3D wireframe	Yes	Yes	Yes
Create XY outputs of involute points (text, Excel, CSV & DXF)		Yes	Yes
Create XYZ outputs of surfaces for spur, bevel and worm gear tooth cuts		Yes	Yes
Create data sheets, Excel, Text and CVS (Common Separated Values)	Yes	Yes	Yes
Spur and Helical gear sizing		2018	2018
Convert GearTrax Legacy files	Yes	Yes	Yes
Simple math calculations when entering values	Yes	Yes	Yes
Sizable window		Yes	Yes
Graphics window detachable from data window		2018	
Undo and Redo buttons	2018	2018	
Spur and Helical Gears:	Yes	Yes	Yes
ANSI-AGMA 2008-A88	Yes	Yes	Yes
ANSI-AGMA 2015-1-A01	Yes	Yes	Yes
DIN 867	Yes	Yes	Yes
PGT (1-4)	Yes	Yes	Yes
British Standards	Yes	Yes	Yes
JIS B 1701	Yes	Yes	Yes
Fellow Stub	2018	2018	Yes
Cycloidal tooth profile (for clocks)		2017	
Company standards	Yes	Yes	Yes
Measurements over/under pins	Yes	Yes	Yes
Span measurements (over x number of teeth)	Yes	Yes	Yes
Chordal measurements	Yes	Yes	Yes
Test radius	Yes	Yes	Yes
CAD model suitable for manufacturing *	Yes	Yes	Yes
Plastic mold shrinkage		2018	Yes
Automatic balance addendum modifications	Yes	Yes	Yes
Racks	Yes	Yes	Yes
Tooth Tip Radius		Yes	Yes
Hunting Mesh Information		Yes	Yes
Hob Protuberance		Yes	Yes
Face Gears (aka Crown Gears)		Yes	Yes
Parabolic and linear profile modifications		Yes	Yes
Radial and tapered longitudinal crowned teeth, full and half		Yes	Yes
Ability to edit CAD models		SW only	SW only
Additional center distance controls		Yes	Yes
Operating Diameters, Start of Active profile, HPSTC, LPSTC	Yes	Yes	Yes
Roll Angles at different diameters including custom	Yes	Yes	Yes
Contact Ratio	Yes	Yes	Yes
Topping Adjustment	Yes	Yes	Yes

	GearTrax	GearTraxPRO	GearTeq
On screen diplay of minimum tooth thickness		Yes	
Create a XY data sheet of the involute using Excel, text or CSV file		Yes	Yes
Create a basic DXF file		Yes	Yes

Software Feature	GearTrax	GearTraxPRO	GearTeq
Bevel gears, spiral:	Yes	Yes	Yes
Gleason, Spiral and Zerol	Yes	Yes	Yes
Camnetics TruSpiral (accurate involute and true spiral)	Yes	Yes	Yes
Non-standard	Yes	Yes	Yes
Lead crowning, half and full radial		Yes	Yes
User control of the number of lofts sketches		Yes	Yes
CAD model suitable for prototyping *	Yes	Yes	Yes
CAD models of straight bevel gears suitable for manufacturing *	Yes	Yes	Yes
Create a basic DXF file		Yes	Yes
Create a XYZ surface text file		Yes	Yes
Bevel gears, straight:	Yes	Yes	Yes
Gleason	Yes	Yes	Yes
DIN 3971	Yes	Yes	Yes
Non-standard and Free-Form	Yes	Yes	Yes
CAD model suitable for manufacturing *	Yes	Yes	Yes
Hunting Mesh Information		Yes	2018
Lead crowning, half and full radial		Yes	Yes
Bevel tooth cuts can be added to a part file		Yes	Yes
Ability to edit CAD models		SW only	SW only
Worm gears:	Yes	Yes	Yes
Models suitable for manufacturing *	Yes	Yes	Yes
Worm wheel tooth crowning		Yes	Yes
Worm measurement over 3 pins	Yes	Yes	Yes
Additional Worm Wheel cut method (cavity method, SOLIDWORKS only)		Yes	Yes
User control of the number of lofts sketches		Yes	Yes
Splines:	Yes	Yes	Yes
ANSI	Yes	Yes	Yes
DIN 5480 and 5482	Yes	Yes	Yes
JIS	Yes	Yes	Yes
CAD models suitable for manufacturing *	Yes	Yes	Yes
Deviation chart for DIN and ANSI Module splines	Yes	Yes	Yes
An internal spline can be added to a spur gear or pinion.		Yes	Yes
Ability to edit CAD models		SW only	SW only
Create a DXF file starting with version 2016		Yes	Yes
Create a XY data sheet of the involute using Excel, text or CSV file		Yes	Yes
Chain sprockets:	Yes	Yes	Yes
ANSI	Yes	Yes	Yes
DIN	Yes	Yes	Yes
Special ASA	Yes	Yes	Yes
Silent Chain ASME_B29_2M_2007	Yes	Yes	Yes
Create a DXF file starting with 2016		Yes	Yes
Timing belt pulleys:	Yes	Yes	Yes
MXL, XXL, XL, L, H, XH	Yes	Yes	Yes
HTS 5, 8, 14, 20mm (2018+ suitable for manufacturing *)	Yes	Yes	Yes
HTD 3, 5, 8, 14mm (2018+ suitable for manufacturing *)	Yes	Yes	Yes
DIN 7721 (2018+ suitable for manufacturing *)	Yes	Yes	Yes
PowerGrip GT 2, 3, 5, 8, 14 (2018+ suitable for manufacturing *)	Yes	Yes	Yes
PolyChain GT 8, 14mm (NOT suitable for manufacturing)	Yes	Yes	Yes
MXL, XXL, XL, L, H, XH models suitable for manufacturing *	Yes	Yes	Yes
Create a DXF file starting with 2016		Yes	Yes
Belt pulleys:	Yes	Yes	Yes
A, B, AB, C, D, E	Yes	Yes	Yes
V3, V5, V8	Yes	Yes	Yes
PolyV J, L, M	Yes	Yes	Yes

Software Feature	GearTrax	GearTraxPRO	GearTeq
PolyV H, K	Yes	Yes	Yes
A, B, AB, C, D, E, V3, V5, V8 CAD models suitable for manufacturing *	Yes	Yes	Yes
Create a basic DXF file		Yes	Yes
ACME Screw and Nut			Yes
ACME_Threads_B1_5_1977			Yes
Stub_ACME_Threads_B1_5_1977			Yes
Cycloidal Drive Mechanisms		2017	2018
External and internal tangency		2017	2018
2 to 200 lobes		2017	2018
Elliptical gear sets		2017	2018
Limited to 2 lobes, both gears identical		2017	2018
Limited to 1 or 2 lobes, both gears identical		2018	2018

If you answer yes to any of the following questions then you should consider GearTraxPRO or GearTeq:	
Do you consider your company gear professionals?	GearTraxPRO or GearTeq
Will you be needing profile modification?	GearTraxPRO or GearTeq
Will you be creating planetary gear sets?	GearTeq
Will you be creating high ratio gears sets?	GearTeq
Will you be needing any tooth crowning?	GearTraxPRO or GearTeq
* Thoroughly inspect all models before using them for manufacturing.	Last updated: 2018-06-20