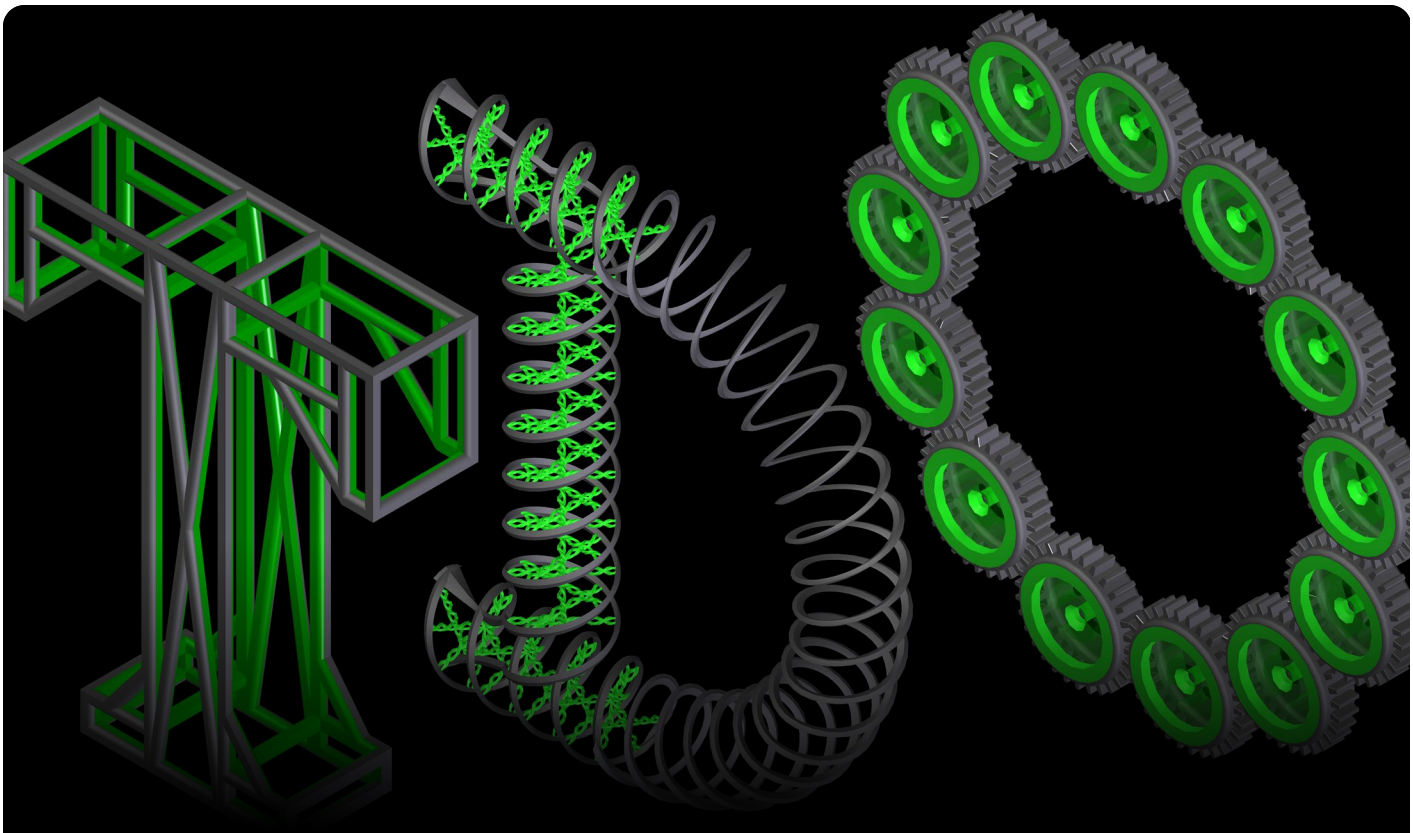
TDO | Engineering & Consultancy



Engineering & Consultancy · Zwaanshoek, NL

Technical design & engineering

TDO is an engineering company based in Zwaanshoek, the Netherlands. With broad knowledge of mechanical engineering and a structured approach, we are ready for all kinds of challenging projects.

±20 yrs
of mechanical engineering experience

50+
clients across many industries

5
disciplines under one roof

~9 mo
average from design to start of FOT production

Services

From idea to a product that works

Five disciplines that reinforce each other: a design that has already been calculated, and a prototype that has already been tested.



01

Technical product design

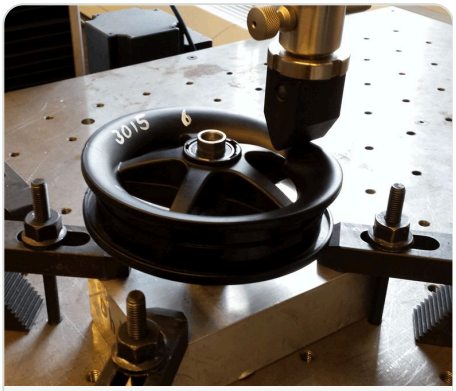
Engineering and looks combined into a complete product.



02

Renderings & cost estimates

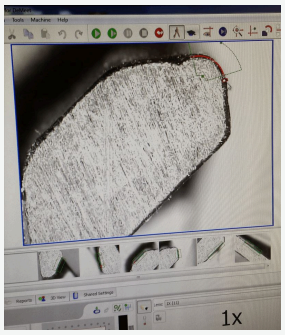
Marketing often needs a compelling visual, and the cost price matters just as much.



03

Prototyping & (field) testing

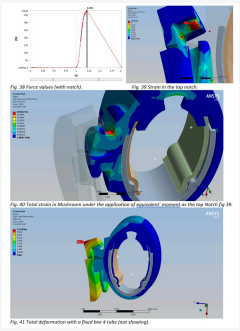
A design process often calls for a working prototype as proof of concept.



04

Quality control & sustaining

To check whether a product has the right quality, measuring is knowing.



05

Strength calculations

Before a product goes into production, it pays to verify that it will perform.

Specialism

Plastics & foam, from design to series

Since 2008, ing. Daniël van der Prijt has worked as an independent mechanical engineer for clients including Bravilor Bonamat, Bugaboo, Ahrend, Sonion and Spinn. The common thread is plastics and foam, above all making plastic parts and assemblies ready for production: from injection moulding design, mould making expertise and material selection to guiding toolmakers and suppliers in Asia and Europe, until the product runs in series.

On top of that: FEM calculations, prototypes and test rigs, and setting up production and assembly lines. As lead engineer, subsystem owner or project lead.

Special interest: space, astronomy and astrophysics; environmental engineering that helps prevent climate change and pollution; and sustainability, robotics and energy innovation, such as batteries, charging systems and solar panels.

Plastics specialist · Mould making expertise · Design for production · Injection moulding design · Foam & thermoforming · DFM / DFA · Tooling support · FOTS & T1 corrections · Material selection · FEM / strength · GPS tolerancing · Food-safe (NSF / UL) · Prototyping · Test rigs · Suppliers Asia & Europe · Assembly lines · Life cycle extension · Sustaining · Lead engineer

Approach

From idea to product, phase by phase

Six phases, separated by gates. Every gate ends in a go, kill, hold or recycle decision, so you always know where you stand. You can bring TDO in at any phase.

Phase	Key activities	Models, protos & samples
G0 · Idea screening	Fits strategy? Worth exploring?	
Phase 0 **Idea & opportunity**	• Idea capture, user and market insight • Competitor scan, first IP check • Rough business case and target cost	Sketches, mood boards Paper and cardboard mock-ups
G1 · Concept approval	Business case OK, budget for concept work	
Phase 1 **Concept & feasibility**	• Product requirements (PRS / PRD) • Concept options and selection • Technical feasibility, key risks • Make-or-buy, early supplier talks	Sketch models (foam, 3D print) Looks-like model Works-like proof of principle
G2 · Concept freeze	Concept chosen, requirements baselined	
Phase 2 **Detailed design & engineering**	• 3D CAD, drawings, tolerances • DFM / DFA with the toolmaker • FMEA, design verification tests • Supplier and material selection	Alpha proto (print / CNC) Beta proto (near-production: vacuum cast, soft tool) DVT samples
G3 · Design freeze / tool release	Design verified, tooling PO placed	
Phase 3 **Tooling & industrialisation**	• Tool build (moulds, dies) • Process and assembly line design • Fixtures, test jigs, control plan • Tool correction loop	FOTS (T0 / T1 shots) T2…Tn corrected samples Dimensional report / FAI
G4 · Tool & sample approval	FOTS in spec, OTS / PPAP signed off	
Phase 4 **Validation & pilot run**	• Production validation (PVT) • Certification (CE, UL, etc.) • Packaging, manuals, service parts • Line validation, yield and cycle time	0-series / pilot series Certification samples Golden sample
G5 · Production release (SOP)	Quality, cost and capacity confirmed	
Phase 5 **Launch & ramp-up**	• Ramp-up to rate • Field feedback, ECO / ECN changes • Cost-down, lifecycle management	Series production

G6 · Post-launch review Targets met? Lessons learned

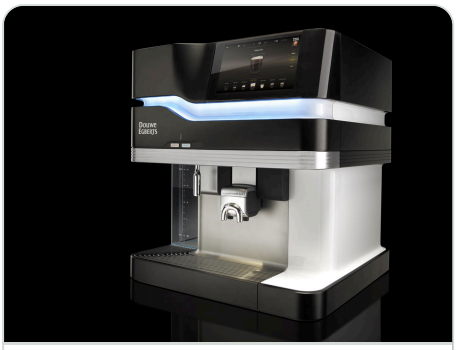
Gate / milestone (go · kill · hold · recycle) Model / proto Tool samples (FOTS)

What you get from TDO: 2D & 3D drawings Research reports Test reports Measurement reports Prototypes

Projects

A selection of our work

Once products reach the market and confidentiality ends, we proudly share the 2D and 3D designs.



Coffee machine 2015

Design · rendering

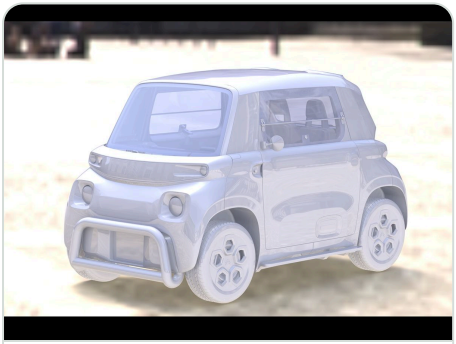


Goalkeeper helmet 2023 Design



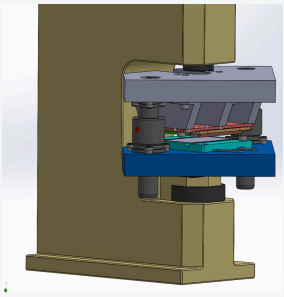
Office chair 2023

Life cycle extension

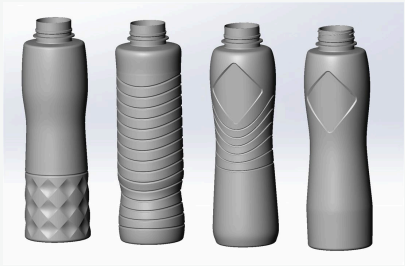


City car accessories 2024

Design · rendering



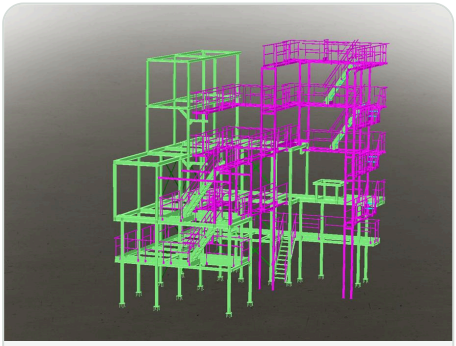
Punch in press 2023 Tooling



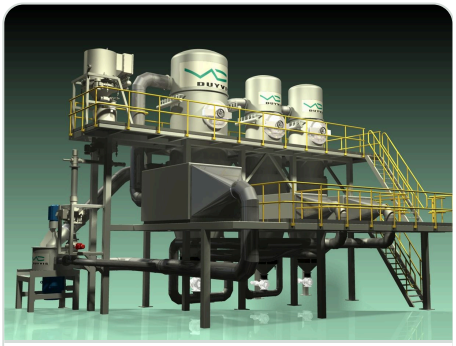
Drinking bottles 2022 Form study



Seat mechanism 2022 Proto · test



Burner frame 2011 Steel structure



Production installation 2011

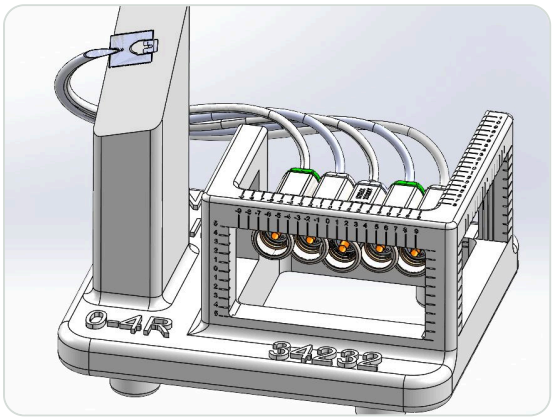
Steel structure



Commitment

A passion for engineering

With almost twenty years of experience and assignments at more than fifty different companies, TDO brings more than calculations. As an independent professional, every project becomes part of me: not simply doing what is asked, but thinking ahead and getting the best out of every design.



Design

From concept to functional 3D model

Complex mechanical constructions call for tight planning and precision, where aesthetics and function go hand in hand.



Planning

Flexible performance under tight deadlines

Working against the clock keeps the mind sharp and projects challenging. Within a realistic schedule, we make sure every detail is right before production starts.

Engagement

How to engage TDO

Rates depend on the type of project and the services required, and above all on the role to be filled.

- Plastics specialist
- Mould making specialist
- Medior engineer
- Senior engineer
- Lead engineer
- Senior product developer
- Value engineer
- Subsystem owner
- Project lead
- Product manager
- Product owner
- Quality engineer
- Test engineer
- Foam specialist
- Production & assembly line engineer

TDO
Technical Design & Engineering

Owner	ing. Daniël van der Prijt
Active since	2008
Field	Mechanical engineering
Location	Zwaanshoek, NL

About TDO

“Daniël van der Prijt is the heart of TDO, working across many industries since 2008 and always looking for new challenges.”

TDO is a technical and graphic design company with a passion for creativity and quality. With our experience and expertise, we create tailor-made solutions that fit the needs of our clients.

Frequently asked questions

Good to know

Can't find your question? Send a message and you'll get a quick reply.

What are your rates?

Our rates depend on the type of project and the services required, in particular the role to be filled. TDO can be engaged as a medior, senior or lead engineer, but also as a plastics or mould making specialist, project lead, subsystem owner, value engineer, product manager, product owner, quality engineer, test engineer, foam specialist or to set up production and assembly lines.

How long does it take to deliver a project?

Project duration varies widely and is agreed with the client. On average, design-focused assignments take 9 months to the start of FOT production. We aim for efficient, timely delivery of 2D and 3D drawings, research reports, test reports, measurement reports and, of course, prototypes.

Contact

Ready for a new engineering challenge?

Feel free to get in touch with questions about TDO and availability, or to discuss a collaboration. Fill in the form or email directly.

Email	**info@tdoengineering.nl**
Location	**Zwaanshoek (Haarlemmermeer), the Netherlands**
Website	**www.tdoengineering.nl/en**
Chamber of Commerce	**34306861**

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