

## Portfolio/Resume

### Peter Persson

Age: 54 years

Marital status: Single

Years in the profession: 33 years

Nationality: Swedish

Born at: Bollnäs, Sweden

Domicile: Stockholm,  
Sweden and Ho Chi Minh, Vietnam



### Who am I?

I am a distinct problem solver, "inventor", a very driven hands-on designer and builder of machines and devices of all kinds, who loves to figure out solutions to seemingly impossible problems. The more difficult a problem is to solve, the more fun it is. And the farther "outside the box" solution a project needs, the more unique designs I will provide. I have been active in the machine design industry, working either on my own projects, or as a hired consultant for 33 years. My experience has given me the opportunity to design and build everything from large format printing machines and entire production lines to basic hand-tools, appliances, and consumer products.

In 1990, I started a mechanical workshop that I ran under my own management until 1998 when the workshop was sold to a neighboring company. The nine year I spent at the workshop has given me unique insight and knowledge of how a workshop floor operates and how its various machines and production procedures work in detail. To have this unique "hands-on" knowledge as a machine designer and product developer has elevated my design sophistication greatly over the years.

For the numerous projects I have worked on over the years, I have been primarily responsible for the whole process from idea development all the way to a complete and finished product/machine. This is what I would describe as my absolute greatest strength—to bring an idea all the way to a finished product/machine. If I undertake an assignment, I will make sure to complete it with outstanding results. I am tenacious as few and I will never give up on a challenging project, never, and I will work the task until it has reached the highest satisfactory level. The idea of work being half-finished and "good enough" does not exist in my world...

Below I have compiled some of the machines, products, and projects that I have designed and built over the years.

## A long list of some of my previous projects

(At least the ones with pictures saved) Listed from the newest to the oldest.

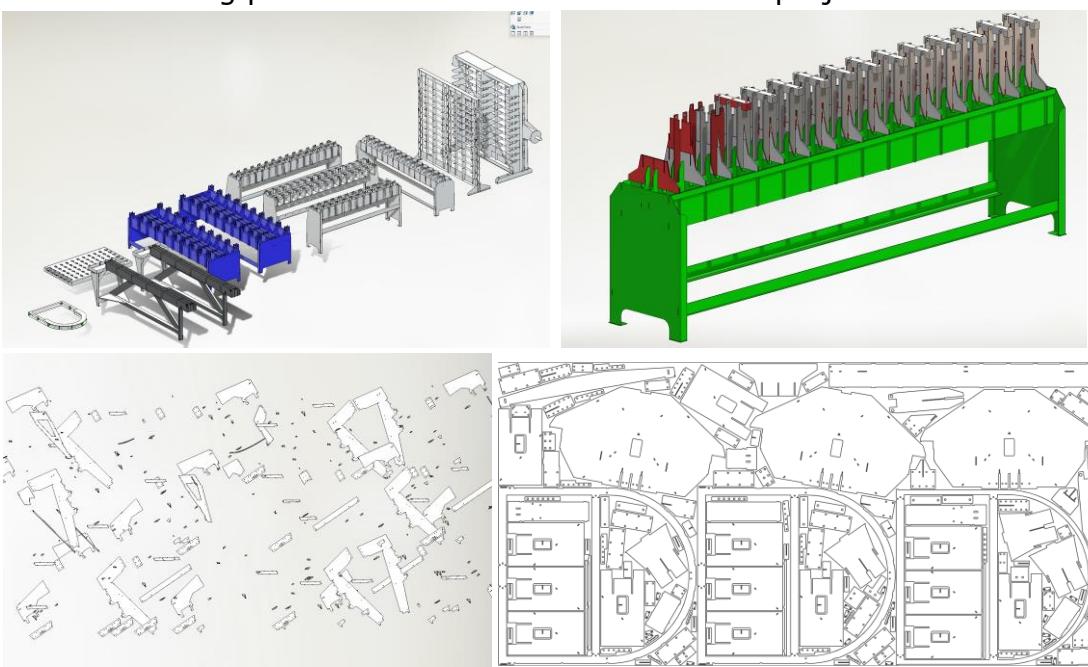
### 2022 My own workshop

- As Covid getting less destructive now, things are starting to move forward and countries are opening up again, I got myself a 500 sqm premises a few months ago, where I'm currently (April 2022) setting up a 500 sqm workshop, where I plan to build customer related machines and devices whenever needed and also my own soft-shelled mud crab production line when time has matured. It is in need of some love and paint though, we are working on it.



### 2021 M3B VT Co., Ltd (Our own company)

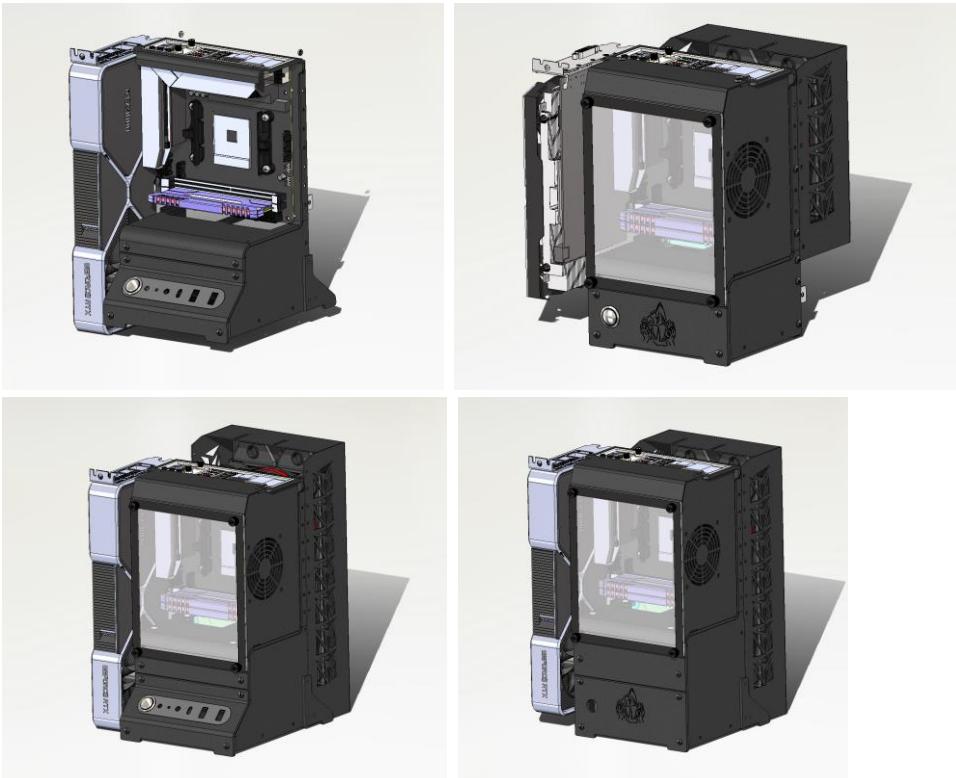
- Designed multiple weld assembly fixtures and nested the parts in preparation for laser cutting parts for our soft-shelled mud crab project



Designed weld fixtures and nested the parts for laser cutting for a local company.

## 2021 My own project

- Designed a few semi-open ITX computer cases for my own side project.



*Computer cases for ITX-computers*

## 2020 AB Avant

- Updated a few designs on these 24-year-old machines, which I designed and built between 1994-1996, (see further down for more details) and they are still going strong, 24/7, year after year.



*The calendar on the upper right-hand corner on the wall needs to be changed though as it is from 2019 😊*

2020- **Soft-shelled mud crab project**

2016

- **Initially**

In 2016, I stumbled onto an article about soft-shelled crabs and I learned how labor-intensive traditional farming methods are, and that fewer and fewer farmers and workers are willing to produce soft-shelled crabs and that there is no automation developed for it. I was looking for a new challenge, perhaps building machines for myself and mass-producing something. I thought these problems were interesting and I continued my research, as I wanted to know if I could figure out a way to automate this soft-shelled crab making process. With my, at the time 26 years of designing and building computer-controlled machines, I felt this was a perfect project for me to take on. 4 years later, I had it all figured out and have designed a complete production solution. Unfortunately, the Covid pandemic came in my way and the project was put on idle. Sometime at end of 2022 we plan to continue the project.

- **The lab**

At the same time, I had to learn how to keep the crabs alive.

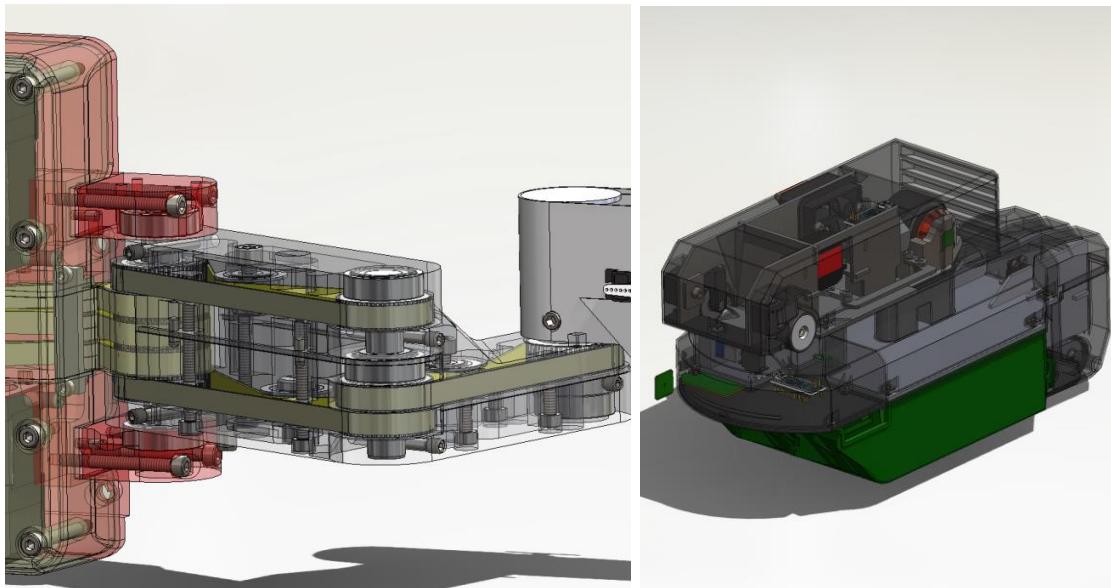


Here are some pictures from our lab in Vung Tau, Vietnam 2018-2019. As we would deal with live animals, I wanted to be 100% sure that the crabs would thrive in such an alien environment. So, I set up a simple lab, and I designed and built everything myself, where I experimented with water compositions, different water treatments, learning how to cultivate different bacteria for controlling the levels of ammonia, nitrite, nitrate, and phosphate, experimented with different feeds, light conditions and many other test conditions until I reached a satisfying result. The development went from disastrous 100% crab mortality down to <5%, due to diligent and methodical testing and evaluation.

- **Soft-shelled crab machine design**

I have spent the last four years designing an almost fully automatic production facility for mass production of Soft-shelled crabs. I am using the latest in artificial intelligence, machine vision, sensor arrays and multiple different autonomous "service-robots" to manage loading, unloading, harvesting, and

feeding the crabs, health monitoring, molting monitoring, cleaning and waste management, etc. For obvious company trade secret reasons, I can't display any detailed pictures of this project other than a partial picture of a pick and place robot arm and an autonomous service shuttle.



*Pick and place robot arm from one of the "service-robots" and autonomous service shuttle*

2017 Öhlins Racing AB

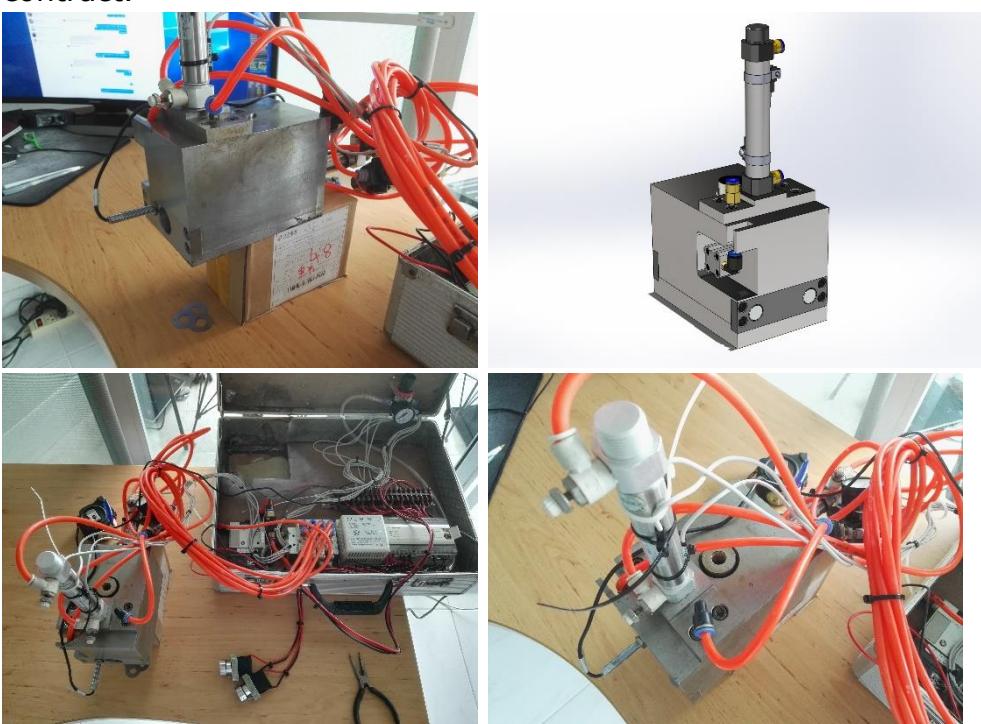
- Portable oil filling station based on my own idea and design. As this is still under NDA, I cannot share too many details for now.



*This portable oil filling station is used by smaller service workshops and motocross and rally service-teams out in the field.*

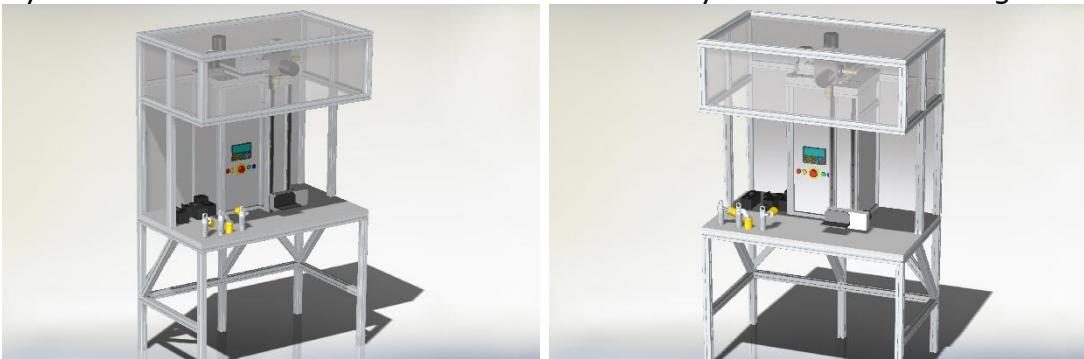
2016- **Öhlins Asia Co, Ltd**

- 2012
- This shim washer hopper and robot applicator is based on my own idea for design, and it was also built and programmed by me. I was invited to this automotive manufacturing company in 2012 to see if I was interested in participating in the design and construction of a new assembly line. They were very impressed by my CV/portfolio but they had some hesitations due to me having a single-person-company at the time, even though I had a wide network of machine shops and independent freelancers to choose from. I asked them to test my capability, and I offered my services to solve their most difficult problem at no cost as long as they paid for the material. They have manually assembled shim washers, which work as valve membranes, for decades, as they had never found a way to automate the process. They were extremely happy with this device and I received a few more small assignments, and then finally I was awarded the entire production line contract.



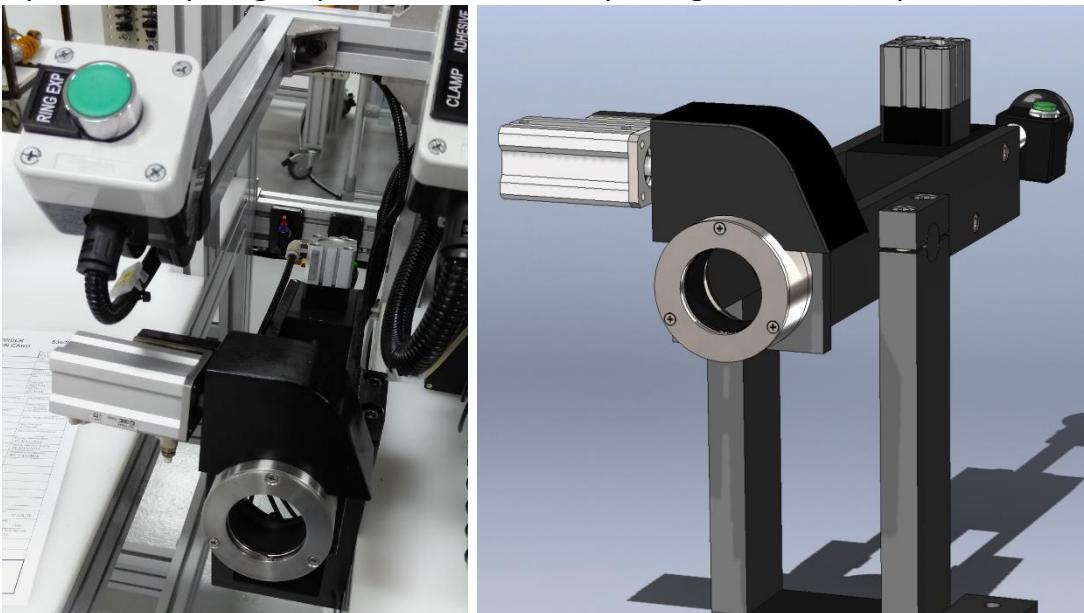
*My first assignment at this company, a fully automatic shim washer hopper and robot applicator for oil valves.*

- Cylinder reservoir wrench machine based on my own idea and design.



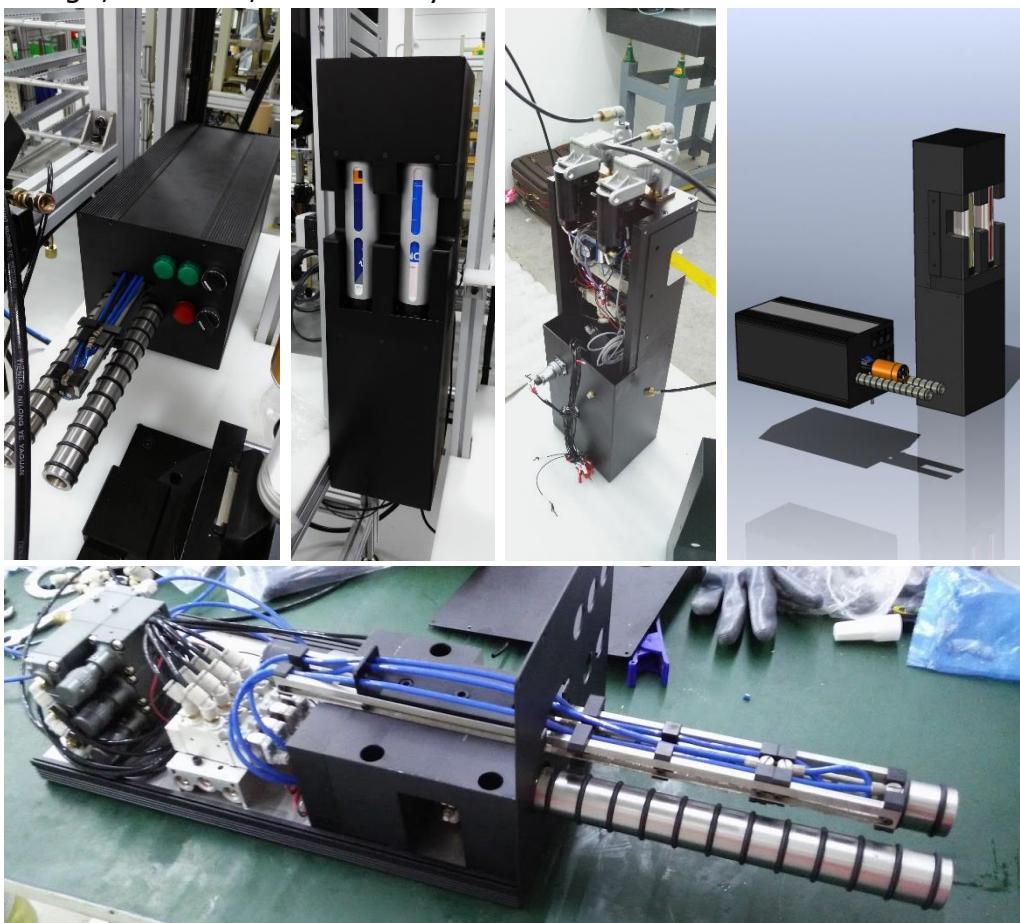
*I designed and presented this machine as a concept to demonstrate how some of the client's current assembly stations could be more automated, thus faster, and less prone to human errors.*

- Cylinder snap ring expander based on my design and built by me.



*I designed and built this snap ring expander based on an existing idea. It expands a snap ring so it can be easily mounted onto a cylinder's outer ring grooves.*

- This automated grease dispenser and applicator is based on my own idea, design, software, and built by me.



*Greasing the inside walls of gas reservoirs have been conducted manually for decades at this company. It is a really time consuming and messy task using a regular art brush, so when I presented this idea for them, they loved the idea and allowed me to build a prototype, after which they asked to have a few more of them built.*

- This automated reservoir thread locking adhesive applicator is based on my own idea, design, software, and built by me.



*Adding thread lock adhesive has always been applied manually, directly from a hand-held bottle at this client. It is a time-consuming task and can easily be done incorrectly or completely forgotten. This device will alarm and lock the next assembly station if the operator forgets this part of the sequence. I presented this idea for them based on my previous grease dispenser. They approved the idea and allowed me to build it.*

- This automated piston rod tip thread locking adhesive applicator is based on my own idea, design, software, and built by me.



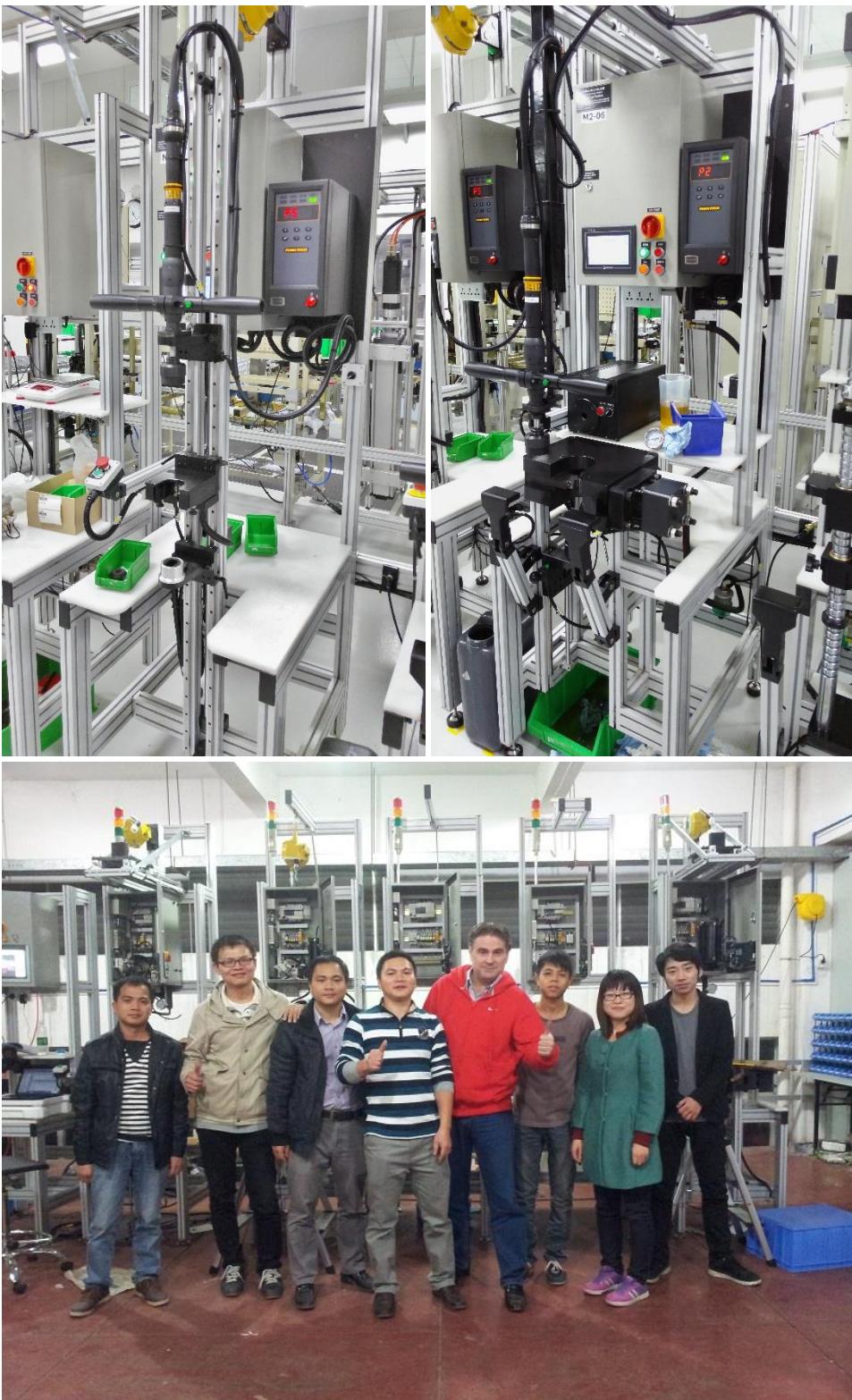
*Operator pushes the piston rod tip into the application funnel and the adhesive is applied; the piston rod gets pushed out when completed, all within 2 seconds. At this workstation, adhesive was previously applied from a standard hand-held bottle, with all the fiddling it requires to get it out of the bottle and onto the work surface. It is a time-consuming task and can easily be done incorrectly or even forgotten. This device will alarm and lock the next assembly station if the operator happens to forget this step. When I presented this idea to them, they approved it and allowed me to build it.*

- Seven assembly stations, phase-1.

These are based on the client's own basics but were redesigned and improved and partly automated by me, and then fully built by my team. My team and I did the programming.



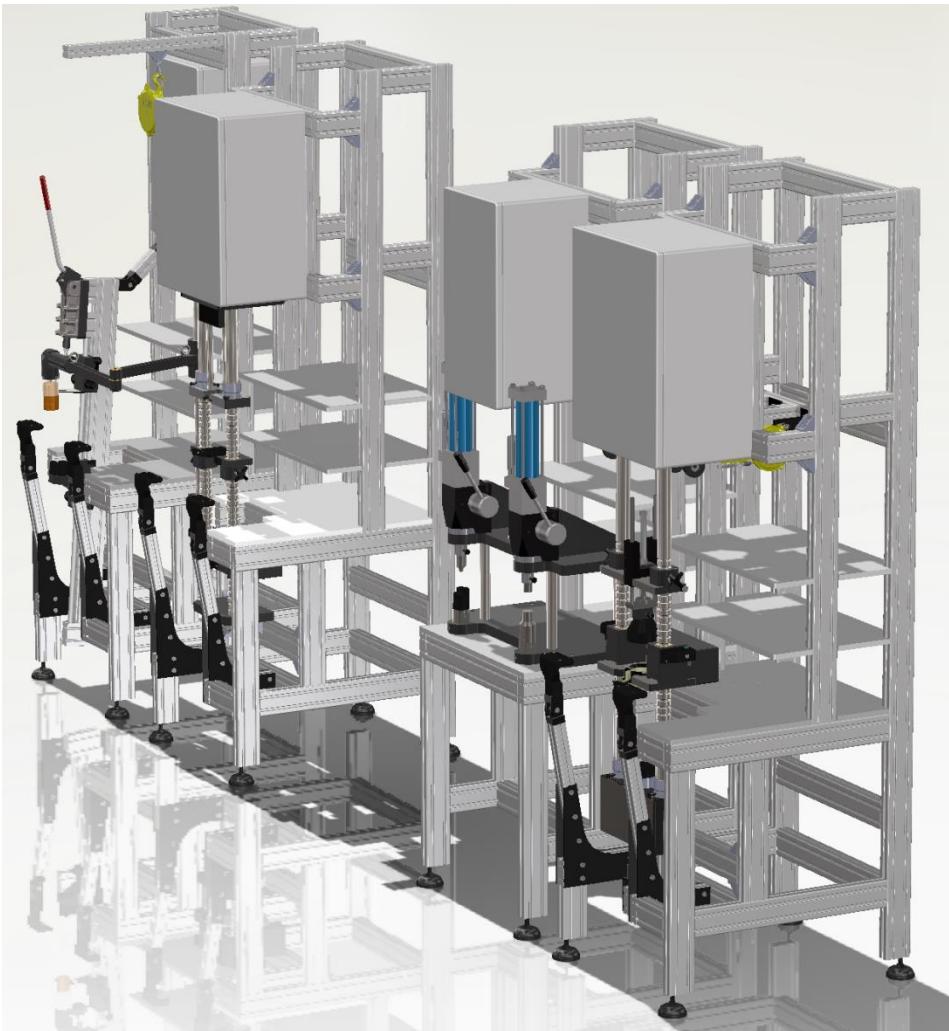




*This is phase-1 of the assembly line. It contains seven assembly stations, including a barcode station from which all other assembly stations get their parameter settings based on which product sheet barcode the operator scans. Here you can see my Chinese team members and me.*

- Four assembly stations, phase-2.

These are based on the client's own basics but were redesigned, improved, and partly automated by me, and then fully built by my team. My team and I did the programming.





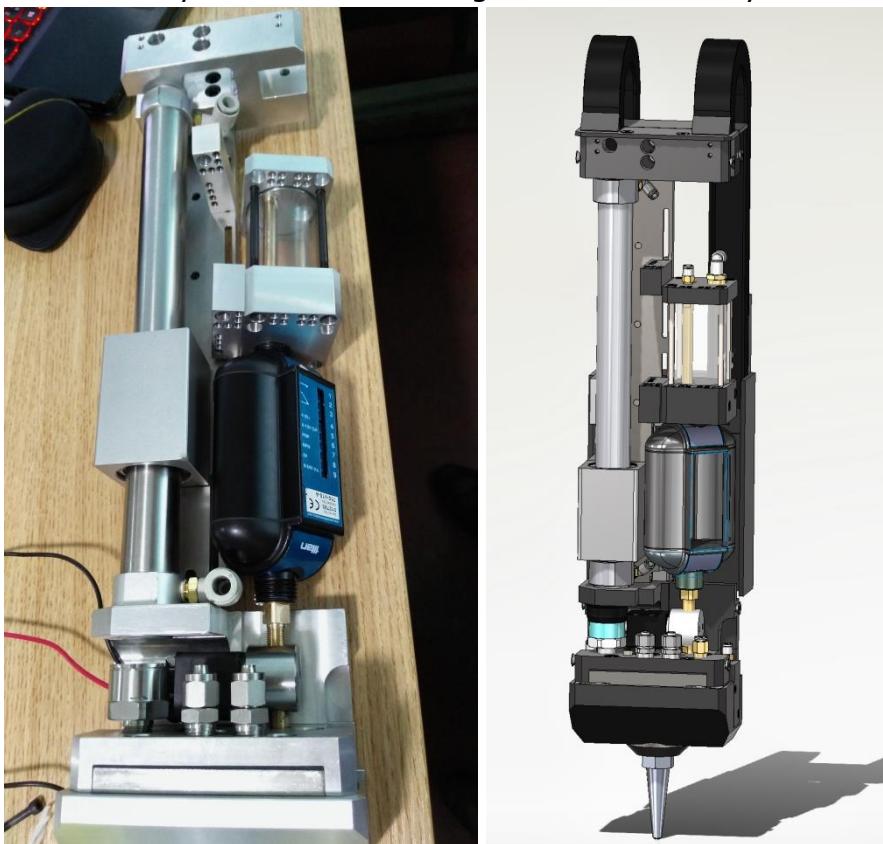
*This is phase-2 of the assembly line. It contains four additional assembly stations, which also receive it's setting parameters from the barcode station mentioned above in the phase-1 description.*

- This automatic adjustable plunger gauge is based on my own idea and design. Programming was made by me.



*This device is a real time saver. Before this device, the client used a multitude of different fixed plungers to different product series. This plunger is fully automatic and adjusts according to the information it receives from the assembly line's barcode station mentioned above in the phase-1 description.*

- This ultrasonic oil flow and pressure filling head with air pocket detection is based on my own idea and design and was built by me.



*This client has a product that has a very critical production step. Doing it wrong, the whole product will, in the worst case, be rendered useless or substandard. The product is filled with special oil, and it is absolutely critical that no air pockets are trapped inside the product for it to work properly. There has never been any way for the client to be able to detect whether such air pockets are present other than doing a stress test on the product in a special Dynometer test machine (mentioned below) after it is completed and from that reading determine if it is within required quality specifications. I solved that by pressurizing the oil, compressing the eventual air pockets trapped inside the product, and then measuring how much the air pockets expand when the pressure is released. All of this is fully automated and done at the same time the product is filled with oil.*

- This oil-filling machine is based on my own idea and design. My team and I built and programmed it.



For decades, this client has filled one of their product types "blindly" and little by chance and then used a Dynamometer test machine (mentioned below) to determine if and how well the product functioned. If the Dynamometer results were not up to standard, the product was manually emptied of all oil and then sent back to the oil-filling machine again. Needless to say, it was a very messy and time-consuming rework. Automating it avoided many tedious setup steps.

- This Dynometer test machine is based on the client's concept but designed and built by my team and me.



*This machine analyzes one of the client's product types for deviations and flaws. This is an updated version utilizing a linear servo-motor instead of a rotating motor with a lead screw. This machine is faster and more accurate than their older Dynometer test machines.*

2012- **HJ Engineering Co., Ltd**

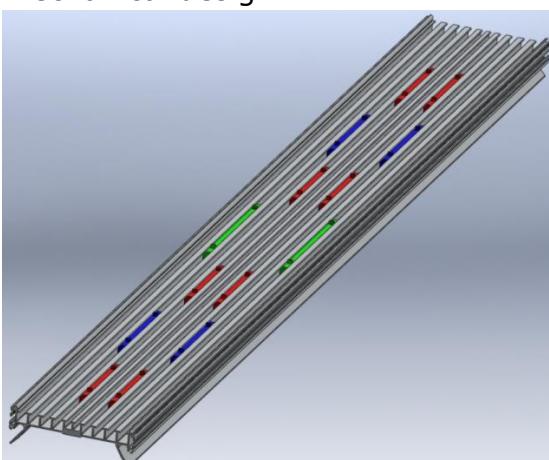
- 2011
- This dual side multi-level profile surface manipulator robot is based on my own idea and design, and built and programmed by the client and me.



*Made for my client's client. The primary client did not allow us, as is not uncommon, to photo document the building process so I only have this 3D model to show here. It is part of a larger processing line. The main client extrudes plastic cables and thin profiles and this surface manipulator can, depending on the type of interchangeable tools, print, cut, deform, split, drill, shrink, etc. the surfaces along the profiles. It can manipulate 2x13 profiles at once.*

2011 **CellMax Technologies AB**

- Adjustable GSM Antenna based on the client's concept, but using my mechanical design.



*Unfortunately, pictures and videos from this project are missing. I could only find this early image. The rest are probably stored on a hard-drive currently out of my reach. The client asked me to present four different mechanical solutions for their antenna's receiver elements and present them as animations for a seminar held by them.*

2011- **SiamCCS Co., Ltd**

2009

- Call blocking device CallBust is based on my own idea, design, and software systemizing.

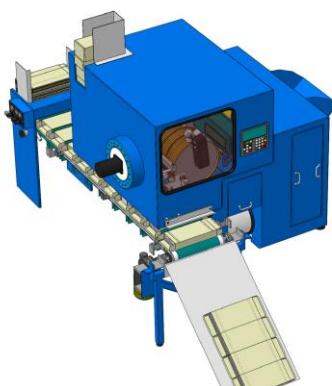


*CallBust is a system that effectively blocks telemarketers and sponsor agents from reaching user's phones. The system consists of distributed clients, the box in the pictures placed at all user's locations, and central servers located on the internet containing databases and software. These central servers collect and analyze user's response patterns and thus the system can effectively prevent telemarketers and "professional beggars" from accessing user phones. The system is patent pending and the design has several design protections.*

2007- **Protech E&D Co., Ltd**

2008

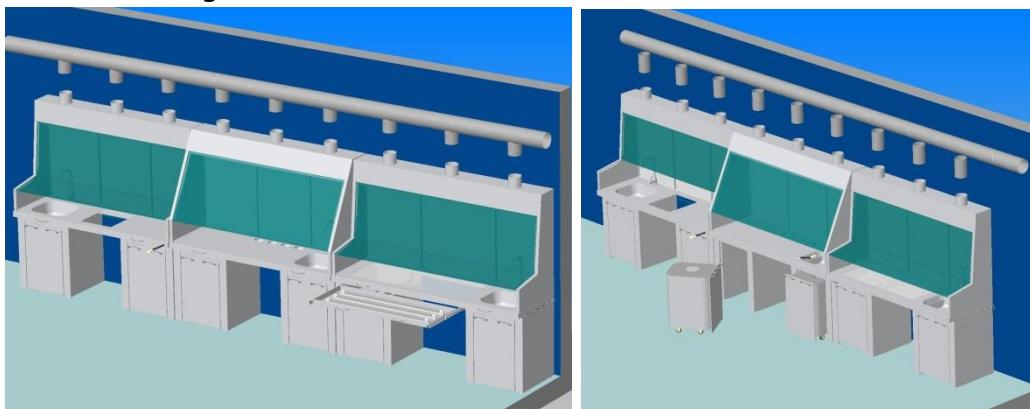
- Mobile spiral production machine. "Jet-Snabb" is an old trademark for this mobile spiral store display hanger. I have designed a machine that can mass-produce this hanger significantly faster than what current machines can do, which I also happened to have designed and built between 1994-1996.



*I designed this machine for myself. The machine is intended to be completed in the future when the time is right.*

2007 **Beacon AB**

- Height-adjustable laboratory benches with extraction hoods based on my own idea and design.



*Laboratory benches with extraction hoods for Beacon's new production premises in Bangkok. The benches are height adjustable and equipped with lightboxes and mobile tanks for cleaning fluid and waste water.*

2010- **IceFlip.se**

- 2006
- Flippable car license plate holder. My own idea, design, and manufacturing in China and Bangkok. I have also systematized the electronics and the unique 2-way radio remote control with display.

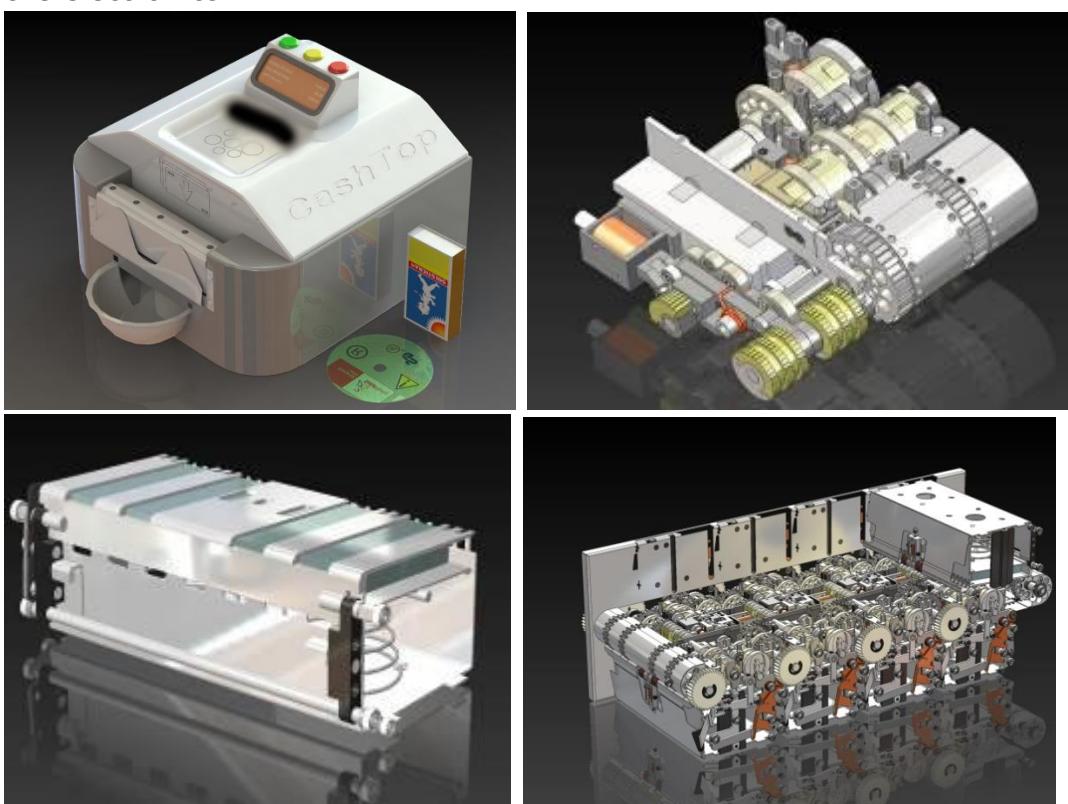


*IceFlip is a mischievous "disobedience gismo" for car enthusiasts. IceFlip can be used to escape speed cameras. IceFlip is a holder for the car's license plate that easily hides the license plate whenever the driver wishes. The holder itself is discreet with its 8 millimeters thickness (12 mm at the attachment). The flip is extremely robust and has a powerful motor (480W) that can easily flip the sign when driving well above posted speed limits. If you lay IceFlip flat on a table, it can lift a full 12 kg. That demonstrates how powerful it is. [See the movie.](#)*

*IceFlip premiered at the Motorsport Performance Show & Custom Motor Show at Elmia in Jönköping, Sweden, during the Easter weekend of 2010.*

2006- **Protech E&D Co., Ltd**

- 2004 • Cash handling system – CashTop. My own idea, design, and systemization of the electronics.



*CashTop is a completely new ultra-compact and completely closed cash handling system intended to automate and secure the retailer's handling of cash. CashTop takes payment from the customer; the money is then recycled out to the customer again in the form of exchange. The system is half the size of similar systems that were on the market at that time. Unlike competing systems, this system has both banknote and coin handling capabilities built into the same device.*

2011- **Protech E&D Co., Ltd**

- 2004 • I moved to Bangkok and started up Protech Engineering and Design Co., Ltd.





I designed and built up my office from a completely empty gray concrete room. The company provides customers with efficient design and production solutions. The company was active for 13 years until 2017 when I moved to Vietnam for a new project. A young 35-year-old Peter can be spotted in one of the pictures 😊

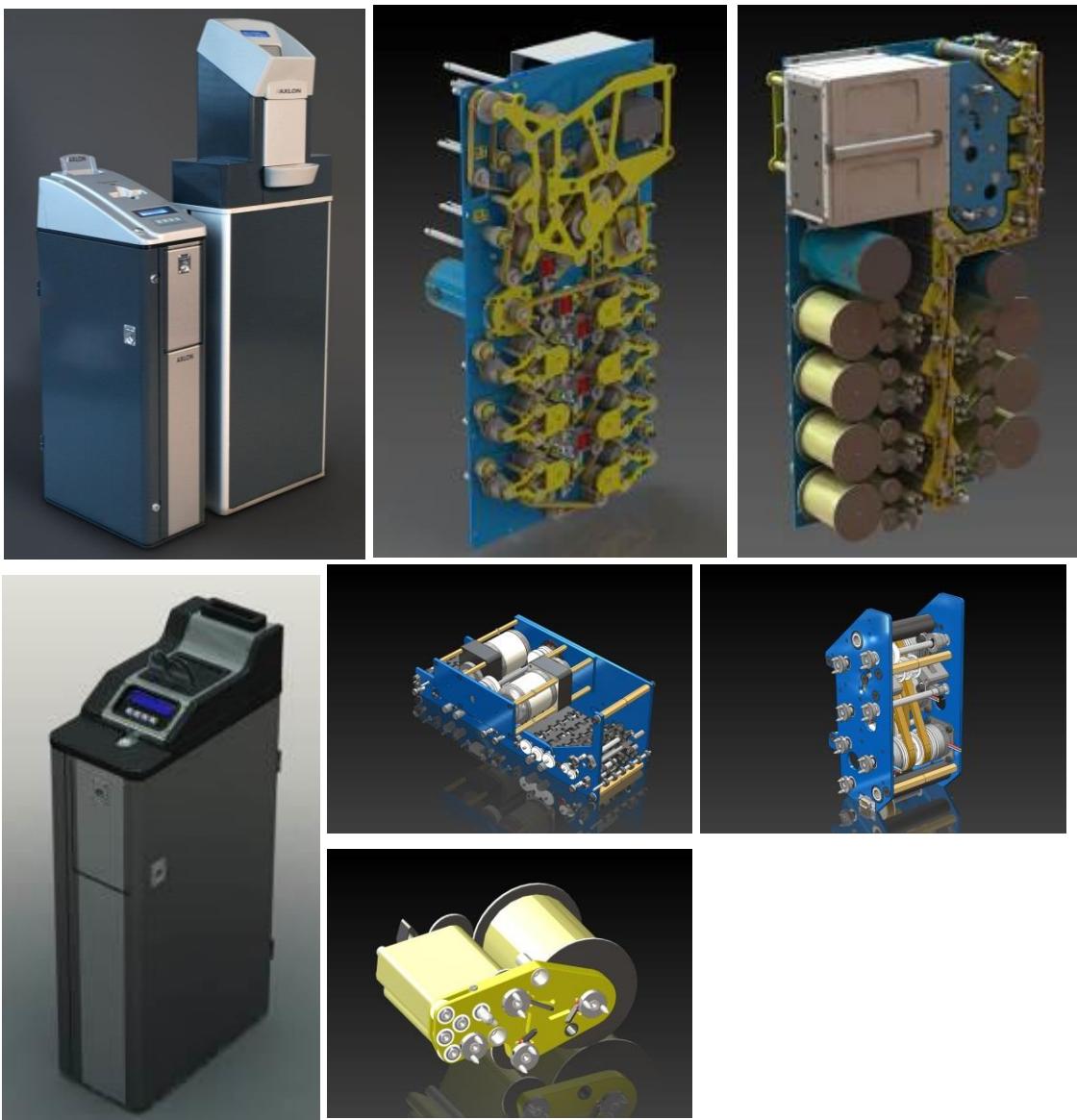
## 2003- Axon AB

- 2002
- Coin handling machine based on the client's idea; however, I totally redesigned their current device to create easier handling of the device.



I redesigned Axlon's existing coin handling machine. After this, the management was so impressed that I was offered to take over the entire development of their banknote handling machine project as described below.

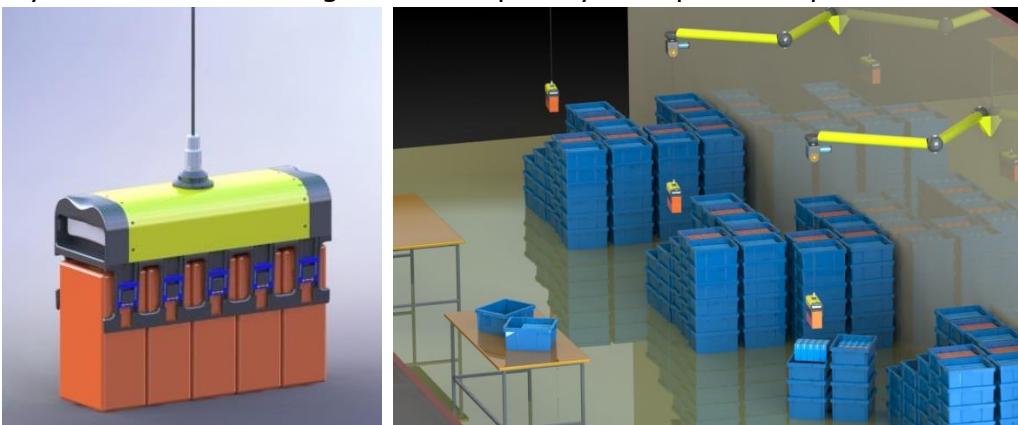
- Fully automatic banknote handling machine based on my own idea, design, and software systemizing.



*In this project, I had to take over from an Italian design group that had completely lost control over the project. The Italians had constructed a non-functioning nightmare that was comparable to a washing machine in size. I was given free rein to start over from absolute zero. My design is completely modular. Each module can be replaced in a few seconds. The machine has no problem at all in handling broken banknotes regardless of their condition, which was one of the basic requirements. The machine is compact and no larger than a full-tower computer cabinet. The machine can charge customers with banknotes in bundles and not just one by one as in the competitors' banknote machines. The machine separates, sorts, and checks the authenticity of the banknotes. In the event of needing change, this is paid out by the machine using recirculated bank notes; in other words, the exchange consists of the same banknotes that were previously paid into the machine. The design allows an unlimited number of denominations to be built on. Recharging the machine with the new day's bills and emptying it at the end of the day takes place within a completely closed logistic system, which guarantees a high level of security for the stores.*

2002 **Arla**

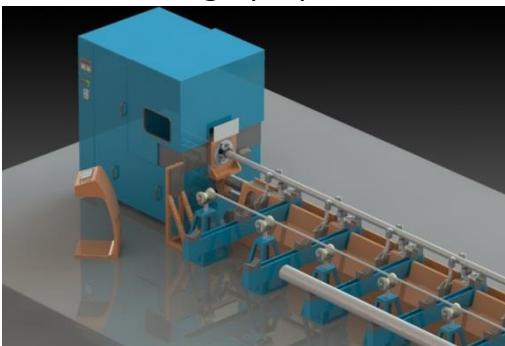
- My own idea and design of a completely new pick and place aid.



*This pick and place aid is intended to make things easier for Arla's warehouse staff. At the time of this project, the staff hand-picked milk packages (Tetra Bricks) one by one, which gave operators wear and tear injuries on their hands. With this picking aid, the operator can pick and place five milk packages at once from the milk crate at the same time.*

2002 **Sandvik Steel AB**

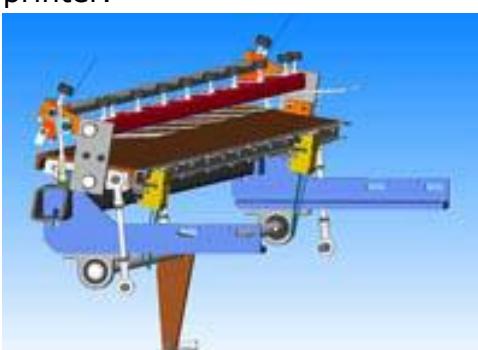
- Idea and design proposal for a handling and deburring machine for pipes



*A machine for deburring pipe ends. When cutting stainless steel pipes, a stone cutting disc is used at Sandvik Steel AB. The temperatures that occur when cutting with a cutting disc, burns off the protecting chromium at the pipe's cut surface and the surface loses its stainless properties and becomes susceptible to corrosion. This machine is intended to effectively remove the cutting burrs and the rusty outer chromium-free layer of the surface.*

2000- **Svecia AB**

- 2002 • Design of a completely new loading flap for Svecia's new "PrintMaster" screen-printer.



- My own idea and design of a completely new gripper block system dedicated to Svecia's older screen-printing machine "Sveciamatic."



- My own idea and design of a new squeegee carriage. Patent protection applied.

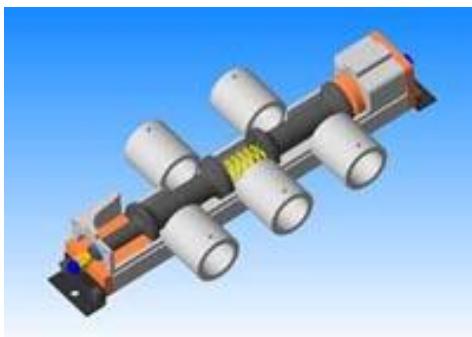


- My own design and development of Svecia's new screen-printing machine Sveciamatic Type-T.

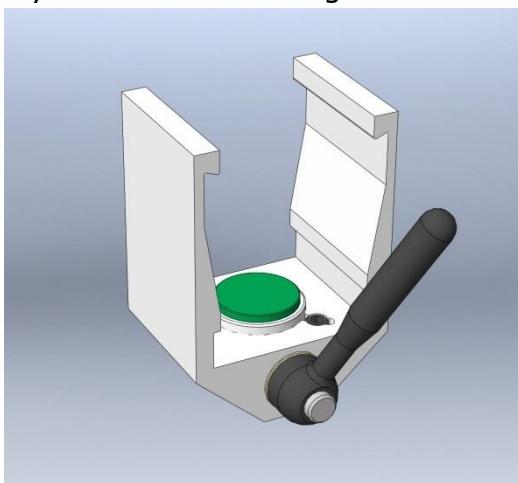


*After demonstrating my gripper block system and squeegee, I was given full responsibility for the development of the new Sveciamatic Type-T, Svecia Matic-T and Svecia Semimatic-T. As many as 35 variants were designed (5 different machines in 7 different sizes) plus a couple of customer specific special machines.*

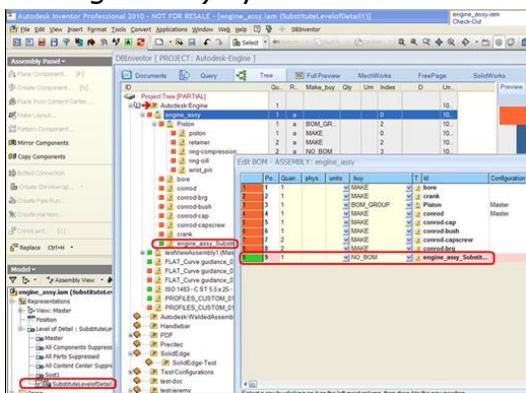
- My own idea and design of a completely unique type of vacuum valve suitable for the entire Svecia machine range. Patent protection applied.



- My own idea and design of a new squeegee clamp.

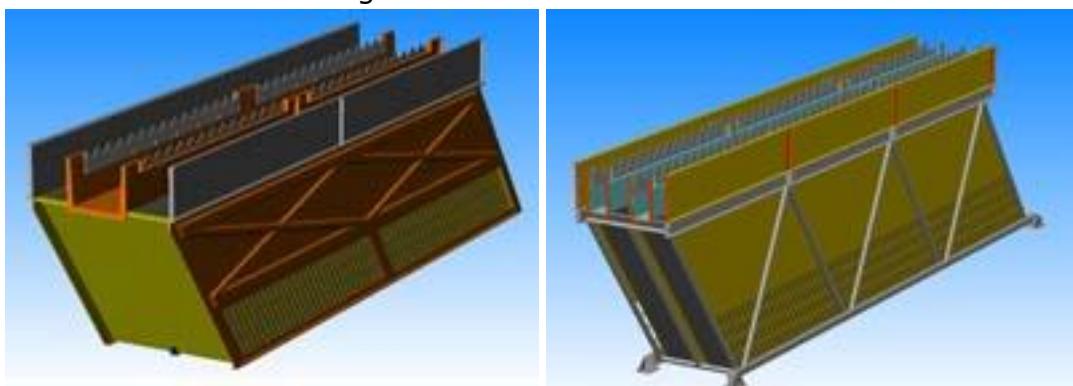


- I was responsible for the introduction of SolidWorks at Svecia. In addition, I was responsible for systemization and customization of a PDM (product data management) system based on DBWorks.



1999- **Waterlink AB**

- 2000 • I converted Waterlink's lamella-filter and all its components from AutoCAD 2D and hand-drawn drawings to SolidWorks 3D.



- My own idea and design of a new enclosure to their DynaDisc, a rotating drum filter for water putrefaction.

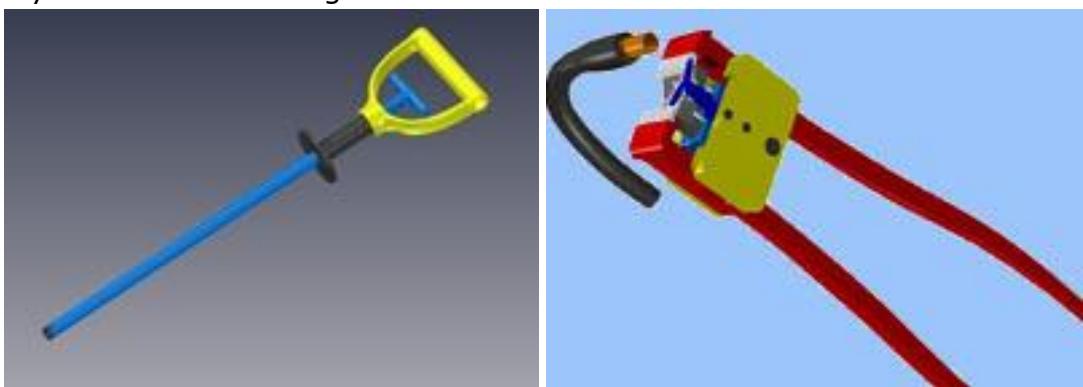


- Based on the client's idea, but my own design, of a water mixer and sand trap device used in water putrefaction equipment.



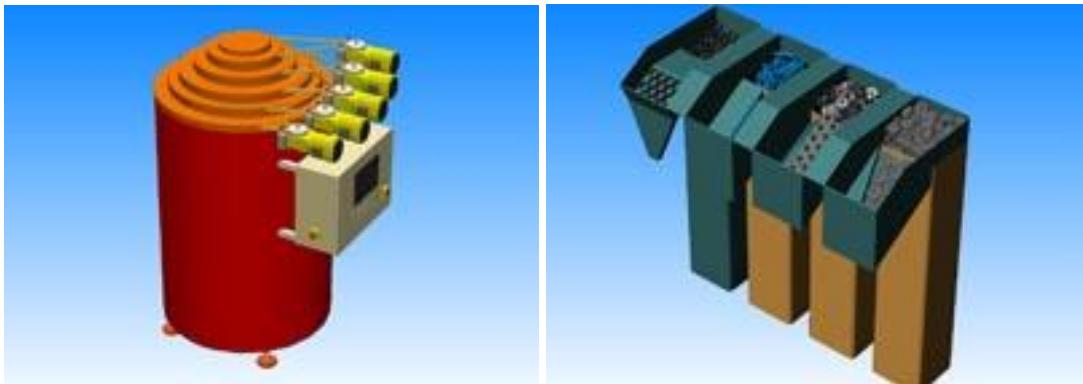
1999 **Alfa Laval Agri via Solidmakarna AB**

- My own idea and design of different hand tools.



*I developed and designed various hand tools to simplify the assembly and disassembly of hoses and rubber bands on milking machines and equipment.*

- My design proposals for different magazines to facilitate their product assembly.



1998- **Robotronic AB**

- 1999
- Motion Ride was a friend's idea, but I helped with design of the mechanics and assembling the equipment and hydraulics.



*This is a virtual roller coaster where a group of people sits in a capsule as passengers. The capsule has a motion picture screen displaying a roller coaster ride. At the same time, the capsule is "bumping around" to simulate the ride's different forces to give the passengers the feeling of an actual roller coaster ride.*

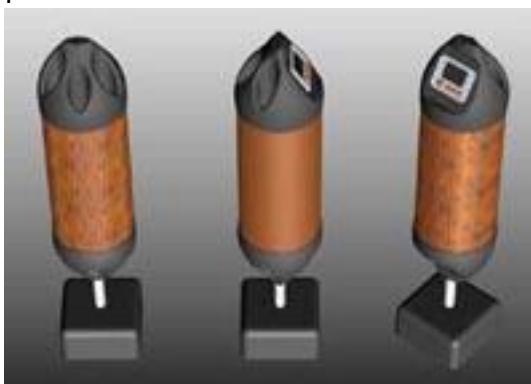
- My own idea, design, and build of different portable computer arcade games, this particular one is called "QuakeSim."



*What was unique at the time with this arcade game was that it was portable and intended for fairs and festivals. Numerous "QuakeSim" units could be connected together to let the players play Quake "a first person shooting game" against each other. The audience could then follow the battle on audience monitors.*

## 1998 VisirClima

- My own idea, design, and prototype of a cabinet for a new type of portable air purifier.



*I helped an inventor friend with a new type of air filter cartridge, to design and build a cabinet for him.*

## 1997- Rolge AB

- 1998 • Client's idea but my design for a plastic film wrapping machine for wrapping mail advertising items.



*The machine is fed with postal items (catalogs/advertisements) from a printing press and then wrapped in plastic film. This machine was unique in that it was extremely fast for the time. Before I was commissioned to design this machine, Rolge AB had tried to find a machine that was fast enough for their printing line without finding anything on the market.*

1997 **Dollarclassic AB**

- Client's idea but my design and automation of a screen-printing machine for clothes.



*I have no pictures from this build, so I borrowed one from the internet for you to get an idea of what it was. The client and I bought ready-made parts from a screen-printer manufacturer; other parts, we had manufactured. The client had a specific requirement of how it was going to be automated and I built the machine to the client's specifications.*

1994- **AB Avant**

- 1997
- My own development, design, build, programming, and manufacturing of all the parts for various production machines for the manufacture of store display materials.
  - Two wire spring winders.





*At the time (1994), these machines were the absolutely fastest wire spring winder machines available. Nothing on the market had this speed and accuracy. The machines are able to wind and cut a tightly wound spring Ø1.25mm x 99mm ± 0.2mm, wire Ø0.25mm, 396 turns in just 800 milliseconds. An uncut and unshaved 25-year-old Peter can be seen here, programming one of the machine's PLC and servo pack. These machines are still in full 24/7 production today (2020), at the client's production facility.*

- Two wire feeding machines.



*These wire feeding machines provide the spring winders with spring wire. The wire feeding machines are computerized and designed to balance the delivery of an always-taut wire when the spring coil "pulls" 1.6-2.0 meters of wire in just 500 milliseconds. These machines are still in full 24/7 production today (2020), at the client's production facility.*

- Fully automatic rotating twin hopper for wire springs.



An electronically controlled hopper feeding wire springs into another machine.

- A semi-automated “mobile spiral” store display device assembly machine.



An assembly machine for “mobile spirals” with semi-automated product packaging. The machine picks up a wire spring from a hopper, moves the wire spring to a wire station that feeds and cuts two Ø0.9mm x 90mm straight “pins,” which are inserted into the wire spring’s both ends. Next, the wire spring is moved to the next station where the two “pins” and the wire spring are punched together to secure a tight fit, and then the “pins” get bent to a predefined shape to become a complete “mobile spiral.” Then, a stack of one hundred “mobile spirals” are packed onto a pre-cut cardboard sheet package which is then folded and stapled manually by the operator. The machine can produce three “mobile spirals” per second or 36 packages per hour.

- A fully automated “mobile spiral” store display device assembly machine with robot arm packaging.



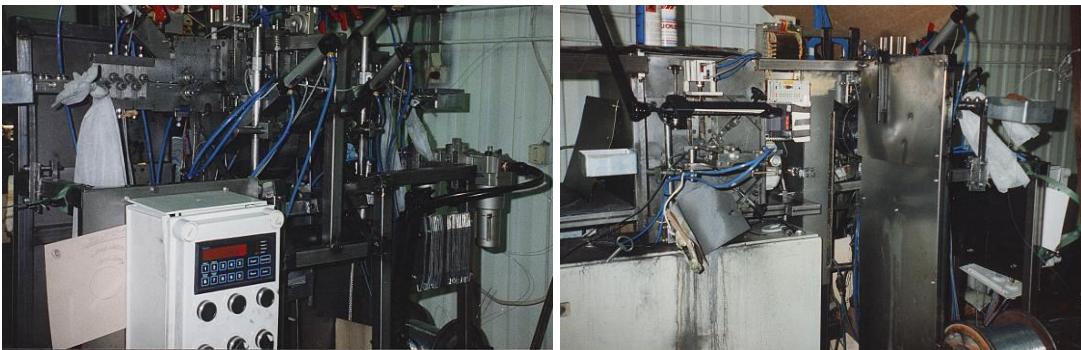


*This is a fully automatic assembly machine for mobile spirals. Designed to produce and package "mobile spirals" completely without human assistance. This machine is still in full 24/7 production today (2020), at the client's production facility.*

- Four simple wire feeders for feeding wire to various machines.  
*Unfortunately, I have no pictures from this build.*
- Fully automatic box packaging robot.  
*Unfortunately, I have no pictures from this build.*

*This pick and place robot was designed and built to pick up "mobile spirals" packages from a conveyor belt and place them in cardboard boxes. This was my first machine designed entirely in 3D, more specifically in AutoCAD version 13's 3D module. Shortly after that, in 1997, I was one of the first in Sweden moving to the brand new fully 3D-dedicated software SolidWorks modeling software.*

- 1990-1994 • Building my first machines. As a young 20/21-year-old rookie, I designed and built my first machines with an extremely low budget for my own project.



*I built my first machines with an extremely low budget. The construction was financed by summer jobs and various other odd jobs. Many of the parts were bought second-hand from scrap-yard companies. I lathed and milled all the mechanical parts myself at various mechanical workshops who were kind enough to let me use their machines for a few hours now and then. My machines were built to produce a "mobile spiral" device for hanging product displays in stores. In time, there were three different machines made. A wire spring winder, a "mobile spiral" assembly machine, and a semi-automated packaging machine. With these machines, I manufactured over 15 million "mobile spirals" during the 2 years that I had production running. I later sold the business to my customer, AB Avant in Marieberg, who also came to order several more machines from me.*

- 1990-1998 • **Started and ran my own mechanical workshop.**  
My workshop offered design service and metal cutting services to manufacture machine parts. I sold the workshop in 1998 to a neighbor.

### **Non-machine related assignments**

- 1989-1990 **Stjärntv – System designer, commissioner, and inspector**  
• My main assignment at this company, as a freelancer, was to design, commission, and inspect satellite and cable TV systems installations. I was among the first in Sweden to qualify as a C.A.N.T.-authorized antenna technician.
- 1988-1989 **Em Styr och Regler AB – Control and regulation engineer.**  
• The work consisted of installing and commissioning control systems for machines, ventilation systems, and air conditioning systems.

### **Less significant projects**

- In addition to the projects mentioned above, I have also worked on other less significant projects and ideas over time. For example, a system for vertical transports of building materials, a scaffolding system for roofs, a browsable CD storage carousel, a folding cane, an electric cheese slicer for handicapped, a shower handle with an on/off trigger, an exhaust filter, a turning-light reminder for motorbikes, motorized spring seat cushion for elderly people, and many more.

## **My background**

I was born in Bollnäs in southern Hälsingland, Sweden, but grew up in Sandviken, 200 km south of Bollnäs. There, as a child, I developed a great interest for mechanics and electronics. I've been a "tech-nerd" all my life. Above all, mechanics and mechatronics have always been close to my heart. My job is my hobby and recreation. My motto as a child was that everything could be repaired, modified, or altered to make it better. With this motto in hand, everything from broken door bells, radios, pinball machines, simple electronics, door locks, bicycles, and remote controls, to older friend's mopeds were successfully repaired or tuned for more power (for a fee of course) ;-). When I got older, it was only natural that my choice became to study something involving technical gadgets. "Control and regulation technology" with a focus on industrial automation suited me perfectly. This allowed me to learn about computers, electronics, sensor-tech, machines, and robotics. With an equal passion for mechanics, I planned to get a mechanical engineering degree, but that never came through. At the age of 20 (1989), I moved to Stockholm and worked for a while with different assignments and eventually came to work as an independent freelancer. And not long thereafter I had setup a workshop where I was designing and building machines for many years, I built my first machine from scrapyard parts, had it mass-producing a display hanger for 2 years, I refined it, and sold it together with another set of machines in 1996 to my current customer of these display hangers. So, one can say I'm a self-taught machine designer by learning it the hard way, and it has worked really well for the 34 years I have been active in this profession.

## **Asia**

Since 2004, I have traveled and worked a lot in China. Over the years, there has been a lot of cooperation between me and a dozen factories and workshops located mainly in China's southern district of Guangdong. I lived and worked in Thailand between 2003 and 2017 when I moved to Vietnam due to my new soft-shelled crab project. The proximity between Thailand, Vietnam and China has allowed me to produce basically everything I have designed and built in China. The collaboration with manufacturers has included production in the areas of plastics, industrial rubber, sheet metal, electronics, and machine parts.

## **Curiosities**

As a curiosity, it can also be mentioned that in 1997 I was some of the first in Sweden to work with SolidWorks, at the time unknown in Sweden. Before that, I designed everything in AutoCAD 2D and later 3D in Autodesk Designer and the successor Mechanical Desktop.

Thanks for looking through my portfolio.

Peter Persson