WELCOME AT ID’11!

“OUR TENTH ANNIVERSARY CALLS FOR A PARTY”
In 2001, the department of Industrial Design took on the challenge to educate a new type of industrial designer who is able to work at the cross-section of design, engineering and social science; a designer who sets a vision for our future society through the creation of disruptive innovative proposals in a socio-cultural and business context, or to put it more specifically, a designer who develops intelligent systems, products and services that enable people to transform their lives. The way to do this: educate students as life-long and self-managing learners who learn through doing and making and who dare to trust their intuition and senses while creating meaningful proposals.

The department started its journey with a group of Bachelor students and a handful of staff members. Now, 10 years later, we have Bachelor’s, Master’s, PDEng and PhD students, next to a large group of staff members from various backgrounds, in total well over 700 people.

And did we succeed in our mission? I believe we did, but you can judge for yourself when seeing the projects at ID’11. We will continue pushing our boundaries and making our and your dreams come true. Our tenth anniversary calls for a party and what better way to do this than through an exhibition of the work of our students?

In this booklet that accompanies the exhibition ID’11 at the Dutch Design Week, you will find work of our Master’s graduates plus a selection of Bachelor’s, Master’s and PDEng projects. Displayed together we hope that it shows in which way intelligent and interactive systems, products and services can enable people to transform their life in various ways, e.g. by offering people the possibility to live healthy, to enhance social interaction and engagement or simply to be surprised and moved by the beauty of technology.

Our society is faced with a number of major challenges aiming at obtaining a sustainably society, which includes the aging society, the related challenge of increasing cost of healthcare; increasing the quality of life and social safety, and attaining a sustainable level of energy consumption. Design can provide answers dealing with these challenges, with the way we live and we want to live, and the role technology can have in this.

ID’11 covers a variety of topics and challenges, and our exhibition takes you on a journey through five of these topics / challenges: individual skills and identity, intelligent and poetic environments, social interaction, health and wellbeing, and sustainable society, which we elucidate briefly at the beginning of every chapter.

The designs presented at ID’11 go hand in hand with our way of designing and educating. I believe that these projects show that our students trust their intuition and senses while meantime striving for scientific rigor. They take responsibility for their own development with support from coaches and experts, and they strive for quality and refreshment.

I am proud to be part of this ID community, to be able to work with young skilful and talented design students and it is my pleasure and honour to invite you all to see their work at ID’11.

Enjoy!

CAROLINE HUMMELS
PROFESSOR DESIGN THEORY OF INTELLIGENT SYSTEMS
Individual skills & identity

Designs are opportunities that enable people to create meaning in interaction in a socio-cultural setting, in this case meaning starting from one's skills and identity. How can design enable us to express our identity to others and to construct our own identities through mediated connections? How can design enable people to develop their skills like cooking, boxing, playing the drums or making photographs? And what would the interaction with our everyday environment look like when we start from the senses and skills people have?
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Imagine a future in which nanotechnology and shape-shifting objects become ubiquitous and blend in with the physical environment of the everyday. The freedom of form that will be inherent to these products might not inform the user about the physical actions. The goal of designer Jeffrey Braun was to explore how to design for a new interaction paradigm; proposed as ‘morphing interaction’. The design space, the experience of using cutlery, needed to be a specific accepted product or tool used every day, in order to put people in control of ‘morphing interaction’. An example of ‘new’ technology being introduced through ‘old’, familiar things.
Apollon is a camera that provides playful photographers the opportunity to approach photography from a new perspective. The ability to physically combine your camera with those of your friends is what sets this camera apart. When physically combined, the photos taken on the connected cameras result in a series of images of the same event, all from slightly different perspectives. By processing these photos new types of media can be generated that go beyond the ordinary photo, one example includes animated photos evoking a 3d-effect. Apollon allows for the exploration of new perspectives and ways of processing photos.
The Personal History project started as an exploration of data visualization in the field of genealogy. The focus changed from purely visualizing to communicating, as it became apparent that there are more urgent opportunities here: older family members want to tell family stories, but find it hard to reach others.

A design in the form of a location-based user content generated treasure quest is proposed, implemented and evaluated. The backbone of the treasure hunt is the storyteller, in the form of the older family member. Young family members can follow the quest using a GPS- and internet-enabled mobile device.
A potential future way of living is explored through combinations of design and research. This project looks at a number of trends in society and technology, towards a future in which we construct our own identities through mediated connections, without the restrictions of fixed locations.

To address this abstract future, a special platform was designed for the current day ‘ocean search’ design case. This concept involves sailors collecting data on water quality for oceanic researchers, and using storytelling to connect these abstract data to the personal experience of being on the ocean.
This project was executed at Polymer Vision, a Philips Electronics spin-off focused on developing a unique technology called ‘rollable displays’. The result of the project is a device for surveyors, demonstrating bending interactions with rollable displays. The device shows intelligent solutions for applying this unique technology in a new way. Code and electronics are subtly integrated in the device., Numerous experimental models led to this final design, through a process in which conveyers and their context played a central role.
SUPER INTIMICY: COSE
MITCHELL JACOBS

COSE is an ‘armpiece’ designed for people who want to be more aware of their bodies and their surroundings. When aroused, it will help you open up to others, by the gently opening of the skin of the armpiece.
Because our skin is exposed to the environment, it plays a key role in protecting our bodies. But it is also one of the most delicate parts of the body. Intimacy and delicacy are unconditionally connected. Opening your skin will be the super stimulus for others to become empathic towards you, and will create a path for intimacy.

SUPER INTIMACY: INTERACTIVE FASHION
SEBASTIAAN WOLZAK

The design of fashion based on the idea of humane technology. This T-shirt embodies the personal attitude that creates a link between identity and fashion. Human instincts were exploited applying technology to emphasize body language. The design exaggerates the posture and at the same time addresses our reproductive instincts. It revives human intuition. Even more than today, fashion becomes an extension of the body; a second skin.
DIFESA

DOUNIA BOURJILA

BACHELOR (2ND YEAR)

COACH: STEPHAN WENSVEEN

An intelligent wearable that is designed for kickboxers and other martial arts practitioners. It measures the defense position during training/sparring and gives personal feedback if the fighter does not have the optimal posture. It helps to train defense and prevents receiving too many hits from the opponent.

AXON INTERACTIVE SUIT

KOEN BELJARAS, JACQUELINE VAN KAMPEN, JOOST RAANEN, MARIANNE DEN AKKER

BACHELOR (1ST YEAR)

COACH: MELISSA COLEMAN

The Axon suit is a superhero suit that interacts with its wearer. It enables him to collect its blue energy, and to release it on enemies. The suit is the result of an exploratory design project in which the possibilities and limitations of wearable technology were put to the test. With its 260 LED lights and 52 magnetic sensors, the suit provides an eye-catching spectacle in the dark. The suit won first prize in the design competition at the TEI’11 event in Madeira, and is being exhibited at the ‘Smart Textile Saloon 2011’ event at Ghent University.
**RHYTHM BY FEELING**

**ALEX MOURÃO DOS SANTOS**

Drum novices often lack any sense of rhythm. To support them, the Rhythmo was designed. It uses the human senses of sight and touch to simplify rhythm complexity. The teacher’s groove patterns are synchronized and translated into visual and physical feedback. The feedback leads to a better communication of the patterns and speeds up learning.

**BACHELOR (1ST YEAR)**

**COACH: LUCIAN REINDL**

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**STEAD-I-CAM**

**FRITS STAM, KOEN DE GREEF**

This project originated from the urge to create tools that help designers create professional results in times of budget cuts. With ‘Tools for Design’ we aim to create a community that helps in the development of instruments used in the design process. The Stead-I-Cam is an example of one of these tools. It supports smooth and professional moving video footage. It is created from a single sheet of laser-cut material, making it easy for any student to create and assemble. This open-source project cuts costs for such a professional tool and makes it accessible for every student.
Companies are used to selecting business gifts from brochures and webshops. However there is no real connection between the gift and the giver. A unique gadget was therefore designed and produced at the university for the 55th anniversary of TU/e. The business gift is a paperweight which is able to adapt to the color of the paper on which it is placed. The opaque material disperses the light evenly and emphasizes the abstract contours of the first three high-rise buildings on the campus. The paperweight challenges the users to interact with their environment through finding color.

The urban sensing project presents a product with which architecture tourists can explore the urban environment in a new and innovative way. Tourists take the product along with them on their expeditions through the city. It provides the tourists with clues and hints about the presence of interesting architectural objects in the immediate environment, and can be used to search for and navigate towards these objects. The product shows the hidden information of the city on the structures themselves, using augmented reality.
Do you enjoy cycling, skating, jogging or walking? Do you love music and adventure? Then this is a project for you! It provides you with navigational information allowing you to keep your eyes on the road. We give you a clue about your destination by manipulating the stereo of your music and lets your own sense of direction lead you. As if your favorite band is having a concert and you are approaching them by following their music.

The application is free for Android phones, so download the app and you are ready to explore. Enjoy!
Social Interaction

Our world has expanded geographically (the global world), time-wise (24x7 society) and socially (e.g. through social media), strongly influencing the social interactions we have with each other. How can design enhance our social connection and engagement for example within our family, between friends or between colleagues? How can design give everyone a fair chance to participate in society and work closely together? And how can design support designers to collaborate intensively with all stakeholders involved and be inspired?
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Nowadays contact moments between family members are becoming increasingly scarce. As children get older they develop their own personal lives, while their parents often have full-time jobs. In these situations, family members are often unable to convey messages face-to-face, and turn to quickly scribbled messages that they leave around.

Family Circles attempts to make this indirect communication more personal by turning these quickly scribbled messages into richer, spoken messages, using the emotional power of the speaker’s voice. Furthermore it encourages family members to make their messages more personal, and thereby to enrich these indirect contacts.
Project Homework aimed to provide parents in double-income families with opportunities for teaching responsibility to their children by encouraging them to do household chores. The concept consists of portable objects that hold up to four different activities, which can be placed at locations in the home related to the context of the activities, incorporating them into existing family routines. Parents are able to set the chores as weekly routines, reducing the effort of keeping it running. Feedback is given to both parents and children as a way of tracking progress and providing encouragement.
The biggest challenge in early phases of collaborative design projects is the development of mutual understanding between the designer and other stakeholders. To create a shared value proposition, the gap between the conveyed value by the designer and the perceived value of the stakeholders needs to be reduced.

This tool allows the designer to provide a tailored representation of the proposed values towards various stakeholders. By using an accessible visual language, a very intangible process is transferred into a more concrete and tangible one. This empowers stakeholders to contribute to the concept from their background, even in radically innovative projects.
Traces is an interactive floor system aimed at facilitating creative sessions. It is intended to increase shared understanding within groups of up to 20 people. A first version was designed for the PhD study of Jelle van Dijk, and 72 participants were observed while using it. The insights gained led to a future design, which divides the session into three parts. First, participants take personal photos of ideas which they consider important. Second, the ideas are explained by projecting the photos around the participants, which triggers curiosity and physical interaction. Finally, to select a winning concept the ideas are projected onto the walls, allowing quick switching from content to faces.
New product–service system development demands a multi-disciplinary approach in which top decision makers such as business and healthcare professionals, engineers, politicians, academics and end-users (stakeholders) should get involved and collaborate towards innovations. The scope of this Master’s graduation project was to investigate how designers can initiate multi stakeholder innovation. The result is the redesign of architectural space (to be used in World Design Capital 2012 Helsinki) combined with a tailor-made designer–stakeholder collaboration process. Coreflection sessions organized and led by the designer were key in this design process.
**Postboard**

**Liza Blummel, Sander Dijkhuys, Iris Elberse**

Bachelor (1st Year)  
Coach: Flip Ziedses des Plantes

Postboard is designed for people with aphasia, a language disorder caused by brain injury or disease. To help prevent social isolation, Postboard encourages people with aphasia and those around them to communicate in a creative way. With Postboard, the user decides the form of communication. Write or draw something on a sticky note, stick it to a picture or scribble something directly on the board. Everything that is on it will also be visible on the other people’s boards and vice versa. It works like a bulletin board, shared over the internet.

**Krul**

**Gijs Houdijk**

Master (1st Year)  
Coach: Mark de Graaf, Tilde Bekker

In this research project a prototype was created to explore opportunities for creating play through interaction with an abstract object. The shape of the KRUL is anonymous, and allows the allocation of a variety of object meanings. When gripped on the blue areas, various sound files are triggered. A mapping between object orientation and the sound output gives children cues to create various object meanings and create fantasy play.
The Teaseat is an interactive chair that stimulates movement among youngsters at school in a subtle but playful way. Playful interaction in the schoolyard is a great opportunity to discover the fun of moving. The Teaseat is aimed at reducing inactivity. However the main subject is not exercising, but having fun. The Teaseats are interlinked chairs placed outside in the schoolyard. They can be used as regular seats, but also provide an openness of action and positioning. The movement (tilting, rotating and bumping) of one chair is imitated by one of the others, which stimulates action and reaction.

In meetings that take a team effort, this product ensures an even division of communication between all the participants. The device gathers data about all the participants’ interest and their level of participation to the ongoing meeting, and provides physical feedback on which team member should be the next to take the floor.
The Public Library of Amsterdam has a music department with a collection that consists of thousands of albums. Music Guru is an interactive system that can be used to get recommended to new music while browsing through the CD bins. In front of every artist’s albums, an artist card is introduced. When someone lifts an artist card, other cards of connecting artists will light up. By using the system, visitors can find new artists and new albums fitting their own taste of music in a very quick and playful manner.
Designing intelligent systems, products and services has social consequences, because they are inextricably intertwined with society. Products are a reflection of society but also a vehicle to steer society. How can design be used to develop tools for second and third world countries to design, produce and maintain their own products and systems locally? How can design enable a sustainable way of energy consumption? How can design bridge the gap between generations and offer possibilities to include the older generations? And how can design contribute to smart mobility?
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This project is an inquiry into bottom-up distributed energy networks in rural India. Based on a vision to create smart, small-scale energy and information networks in India, a design-driven visit resulted in the development of ‘share the sun lamps’: solar-powered LED lamps developed to share. An entrepreneur was empowered who now runs a lamp-sharing business in the village of Sankuhi. Design was used to develop tools that communicate western visions to Indian entrepreneurs, who then design the systems themselves locally. (See how the spark is continuing to reach more villages at www.ruralspark.com)
‘Empathic multi-stakeholder innovation’ is a design methodology in which user-centered and business-oriented design go hand in hand. Great concepts won’t work without an appropriate business model. And conversely, successful business model innovation first requires immersion into where and how people perceive value based on how they behave, and not just on what they say they want.

The methodology was applied to the context of social isolation among the elderly. A city calendar application for tablets was designed to offer elderly people a ‘window to the world’, and to actively involve them in the society around them.
**Vendopark**  
**Michiel Kersteman**

Vendopark is a dynamic parking model based on the occupancy level of parking spaces. Many residential areas around city centers suffer from parking problems because they provide free parking spaces. These are then mainly occupied by outsiders. With Vendopark these outsiders are distributed over the district more efficiently by making use of empty spaces in other areas, without troubling the local residents. The occupancy level of parked cars in a street, shown by light on the payment machine, determines whether an outsider has to pay for parking. As occupancy increases, outsiders have to pay to park, while if there are fewer cars parking remains free.

**LightPace**  
**Frits Stam**

LightPace is a product that improves the safety of people that run after dark or in bad weather conditions. LightPace generates energy through the movements of running and powers a bright red light behind the runner. The device offers the possibility of charging devices such as an mp3-player while you run. The runner is no longer dependent on dying batteries because his movements generates power itself.
Working together with a highly motivated knowledge crowd consisting of people who are 55 years and older, we give them inspiration and ideas to turn their social responsibility into social transformation. At ID’11 we are exhibiting our first pilot together with the ‘Weet wat je besteedt’ foundation and Digitale Stad Eindhoven (DSE). We aim to be inspired by people’s experiences on how to create a tool to help youngsters with their money matters. The pilot was scheduled for a period of four weeks during which participants came together once a week. Some unique views on acquiring or spending money emerged.

Light is liberated from its bulb. New technologies like LEDs allow us to bring light in such compact, efficient and digital forms, that its use is no longer defined by technology. In this project we explore how this freedom can be utilised to address broader societal issues, such as the fact that an increase in living standard is usually paired with energy increase. In a two week project in Beijing, 14 Dutch and Chinese designers were joined together. They spent two days with Beijing’s cleaners, bus drivers and schoolchildren. This revealed moving insights that formed the basis of three lighting installations. These were conceived, built and opened to the public during the Beijing Design Week last September.
The technology that is so rapidly and innovatively created by the technology providers of the world is transforming our world into open networked systems and intelligent environments. How can we use this technology to create a poetic world in which we interact? How can this environment support people to relax and reflect upon life? How can our environment adapt to our mood or enable us to create a specific atmosphere? And how do we see if an environment is intelligent and which possibilities it offers us?
The technology that is so rapidly and innovatively created by the technology providers of the world is transforming our world into open networked systems and intelligent environments. How can we use this technology to create a poetic world in which we interact? How can this environment support people to relax and reflect upon life? How can our environment adapt to our mood or enable us to create a specific atmosphere? And how do we see if an environment is intelligent and which possibilities it offers us?
As the world becomes more urban, it inherently becomes more ‘vertical’, resulting in increasing numbers of small home environments. This concept aims to create an environment that better fits the desires of a person at a specific moment in time. It can adapt itself to the preferences of the person sitting in it. These preferences are categorized in the social dimension of introversion – extroversion, and tailored to the outlined setting. The chair gives people the opportunity both to withdraw themselves from the environment (and irrelevant stimuli), and to engage with the environment.
The aim of this research-through-design project was to explore the interaction between an adaptive lighting system and its users, in the context of a corporate meeting room. An adaptive lighting system is aware of its social context, and portrays socially meaningful behavior based on human activities. For example it sets a lighting scene corresponding to the nature of the meeting, and subtly highlights the prominent speaker. During the project, a full-scale prototype of an adaptive lighting system was designed and developed, and used to explore the user experience of adaptive lighting, as well as the interaction with it.
‘Soft Interiors’ is one of the first examples of a light emitting textile that is not only pleasing to look at but also feels great to touch and handle. It is a lightweight, almost breezy sheer fabric with embedded lights that give off a pleasant glow. ‘Soft Interiors’ is intended for creating ambiance in your living room, as you would by lighting a candle. The fabric is integrated with a wireless charging battery and charging plate. As a material ‘Soft Interiors’ offers possibilities for interior design or fashion design.
Inspiration for this interactive installation comes from the cacophony of everyday sounds around us. The Acoustic Clouds exhibit captures sounds from the nearby environment. Based on their direction, intensity and duration, these sounds are transformed into ‘clouds’ within a transparent glass surface. By exploring, listening and discovering the sounds captured in the different clouds, the design focuses on making people listen more carefully to individual everyday sounds around them. Over 70 meters of cable, 144 LEDs, 5 microphones and 9 speakers were integrated into a transparent frame to make this custom exhibit.
The ViviLumen streetlights interact with passersby. The behavior of the LED strips embedded in their poles can be programmed to match specific occasions. Interaction Designers that design custom behavior are empowered to bring their surroundings to life. The sensors incorporated in the ViviLumen enable people to engage with the lanterns and play with their streetlight experience.

This installation is the first prototype of the product, which now can be seen in at full scale in the Ketelluisplein, Strijp-S, Eindhoven.

VIVI LUMEN
EWELINA SCHRAVEN
COACH: JEAN-BERNARD MARTENS, LORNA GOULDEN

MASTER GRADUATE
CLIENT: PHILIPS DESIGN
STOOF
JOB HUBERTS

BACHELOR (3RD YEAR)
CLIENT: OPEN LIGHT
COORD: MICHAEL CRUZ RESTREPO

Stoof revives the act of cooking. It provokes touchless interaction that shows the possibilities of dynamic light in the kitchen. While cooking, dynamic rings replace the well-known burners and provide support in the process of preparing a meal. The use of dynamic light gives the opportunity to cook better and more efficiently. And it makes cooking a three-dimensional act. Stoof is designed to be a central spot in the domestic environment where people can eat and create food together.

LIVING SPACE
THIJS TER VELDE, JOSHE WOUDSTRA, LOES WAGTER

BACHELOR (2ND YEAR)
COORD: HELEEN VAN HEEL, JORGE ALVES LINO

The ID’11 exhibition space itself has been designed in this project, which was tailored to match the educational program of the department. The designed system guides people through the space, using light that invites them to follow specific walking routes through the exhibition space.
Resonant Doors is a project in search of a higher-quality interaction between door and user. The project explores how elegance in movement can make something as simple as passing through a door a more pleasant or even a poetic experience. By means of several models and prototype iterations, the relationship between the form and movement of doors, and the possibilities for interaction with users, were explored. The final design can open in three directions, enabling the door to join the user in its movement.

A room with mirror walls that create the feeling of a never-ending space, causing the visitor to become disoriented. The visitor sees a cake on a table, and curiosity leads him towards it. The room’s reaction to this person’s actions creates a unique experience. The ideal result of the experiment is that the visitor regains control over the situation. The goal is to play with the awareness of orientation, and to explore the boundaries of reality.
The objective of this project was to design the next generation commercial window display that will showcase a specific product in a more dynamic and interactive way. This iris diaphragm, when placed in the window, reacts to the movement of passing shoppers. It attracts their attention and allows them to become engaged with the window display. If they feel intrigued to approach the window, the iris diaphragm will open up to them and engage them to take a peek inside the world behind the window.

Lights... and action!

Jacqueline van Kampen

Bachelor (2nd year)

Coach: Michael Cruz Restrepo
In Light Through Culture projects we explore how this freedom can be utilised to address wider cultural issues, such as the dramatic loss of interest of youngsters in our cultural legacies. A two week project in Siena brought Dutch and Italian culture together, embodied by 6 TU/e and 6 Italian designer. The project conceived and implemented interactive lighting as a means to bring historical spaces back to life in the renowned Santa Maria della Scala museum. Can you see the affection sparking off the visitor’s faces? Would this not give us hope for considered thinking about our future?
Devoyd flips around innovation and design. We are looking for opportunities in different contexts by having people experiment with Devoyd and its flexible, programmable light wall. The LED’s in this wall uniquely function as sensors and light sources simultaneously. The tiles contain own ‘intelligence’ allowing maximum design space. What would you like to do with Devoyd? Mail us: info@devoyd.com
One of the major challenges our society is facing is being healthy and staying healthy, including bodily health, personal health and wellbeing, but also social and societal health and wellbeing. How can design stimulate people to live healthy, to eat properly and to move enough? How can design raise awareness about the condition of people who are sick or have a disorder? How can design facilitate the life of premature babies and enhance bonding with their environment? And how can design enhance a woman’s labour and delivery experience in the hospital?
One of the major challenges our society is facing is being healthy and staying healthy, including bodily health, personal health and wellbeing, but also social and societal health and wellbeing. How can design stimulate people to live healthy, to eat properly and to move enough? How can design raise awareness about the condition of people who are sick or have a disorder? How can design facilitate the life of premature babies and enhance bonding with their environment? And how can design enhance a woman’s labour and delivery experience in the hospital?
A system that motivates patients on an analytical and social level to continue to exercise after their therapy has stopped. It motivates patients to interact with fellow patients and create a social exercising environment. The system also monitors the activity of patients, and makes the analyzed information available for the therapists, patients as well as acquired sporting friends.
Electronic products become increasingly complex, and therefore it becomes increasingly harder to control them. Recent developments in depth cameras make it possible to control products using gestures, which might make life easier again. In this project designer Marnick Menting investigated possible applications for gestures, like the medical industry, lighting and gaming. This interactive landscape gives an impression of the possibilities. The residents in this landscape react on the movements of the ‘giants’ that visit their land. Try to discover how you can influence the world of these tiny residents in a good or evil manner!
This project supports diabetes patients in deciding on their healthy food intake at supermarkets. The supermarket seems a suitable location to encourage people to make healthy decisions, since this is where people decide what to eat. The concept is a shopping bag that can be taken to the supermarket and be placed in the shopping cart. When presented with groceries, the shopping bag generates visual feedback indicating whether a product is healthy or not.
The ActiMate focuses on increasing daily physical activity for people over 50. Their current physical activity is monitored by a sensor that registers the upper leg muscle activity. The user receives direct feedback about the daily goal of physical activity according to the amount of activity that has been performed. Generally known activities like walking, cycling and sports can be registered by the ActiMate, as well as activities that are not always considered as physical, like gardening and vacuum cleaning. The ActiMate helps the user to become more physically active by providing him or her with a nudge in the right direction.
A system of products was designed in order to provide parents of premature babies a means of comforting their incubator bound child. Premature babies tend to express their perceived stress through movement. In order to comfort their child, parents can place their hands around the child to restrict this movement, so called cocooning. By communicating the baby’s movement and the parent’s touch, the system enables parents to provide a comforting cocooning touch to their child while being outside the hospital.
This graduation project aimed at developing a design to enhance the woman’s labor and delivery experience in the hospital. Extensive field research and stakeholder involvement inspired the development of de Blijde Gebeurtenis: an ambient experience concept that guides the woman through labor in a personal and unobtrusive way by visualizing progress and providing real-time breathing support. De Blijde Gebeurtenis consists of a smartphone app that prepares the woman for labor, and an interactive light animation in the delivery room. The latter is coupled to physiological data obtained via contraction monitoring and results in a unique memento after the delivery.
Simply by eating a particular food, people diagnosed with food allergies may suffer from heavy symptoms. At present medical science lacks a cure: keeping from any exposure is the only measure. Daily life shows to be hard: the patient faces food ingredient labels providing poor information. Labels are often incomplete, unclear or even incorrect. Hence the patient feels like “living in a minefield”. A food scanner was developed, which enables patients to screen food for possible allergenic contents at home, using a low-cost simple automated test. The system can detect peanut, shellfish, gluten, lactose, hazelnut, egg, soy, almond and sesame.
Unconsciously we process all sounds we hear to get information on where we are and what is happening. We can use this to create an unobtrusive flow of information that enriches the sporting experience.

Synchronizing sounds with footsteps creates awareness during exercise, but can also be used to alter the perceived environment. Could hearing the sound of rustling leaves, with each step, bring some of the peace of running in a forest, while being in a city? And could we use this to guide runners through their training schedule?

Wonderturf is a context-aware and context-generating artificial turf that detects the activities of people on it, e.g. playing sports, relaxing and more. Based on this detection, Wonderturf is able to dynamically change its lining system to accommodate these activities best. It can react either actively, by generating and suggesting a context for you, or passively, by responding to the activities that people want to get involved in.
Critically ill, premature babies in the neonatal intensive care unit (NICU) have to be monitored constantly. The saturation of the peripheral oxygen (SPO2) is one of the crucial monitoring processes to be performed on these babies. These fragile neonates have to feel as comfortable as possible during the monitoring process. The current solutions for these SPO2 oximeters can be quite painful and uncomfortable for long-term use.

An innovative solution is proposed based on Near Infrared Spectroscopy (NIRS) techniques that will lead to more comfort during long-term monitoring.
If people were to have a better understanding of what it feels like to have a autistic spectrum disorder (ASD), they would be likely to be more tolerant and understanding towards people who actually have ASD. Traditional media are currently used to inform people about autism, but these lack the ability to convey the experience of actually having autism.

This design is a game that aims to convey the experience of having autism. Six mini-games each explain a different aspect of the disorder, and together they give a complete picture.
DESIGN RIDES
Designed for ‘Design Rides’ during the Dutch Design Week, the ID Diamond is placed on the roof of shuttle cars that transport visitors between the several DDW locations. It reflects its surroundings and gives them a diamond texture. Diamonds symbolize beauty and extravagance, just what you’ll experience after a quick glance at the design. Take a closer look and you will view your surroundings from a different perspective through a series of internal tunnels.
The projects presented at ID’11 are clustered around five topics/challenges. However, one will also find other relationships, especially to the Themes we have within the department of Industrial Design.

You will find many health and wellbeing related projects; projects that stimulate **Comfort and Bonding in Health Care**, by enabling patients to achieve better recovery results, helping medical staff to achieve better training, and empowering people for more comfortable care and social bonding. There are also projects that aim at **Changing Behaviour** and that explore how design for behavioural change can support and restore wellbeing. This can be done by providing sufficient sleep, helping to avoid stress, stimulating healthy eating habits, promoting exercise, and by stimulating people to socialize. This social interaction can be stimulated in several ways, including through **Playful Interactions** that seduce people to activities that contribute to their health and wellbeing. And since people are inherently playful beings, how can one design products that allow for this playfulness in daily activities?

ID’11 also displays a group of projects that focus on the quality and character of new technology in the socio-cultural context. Our technological environment becomes so complex, intimate and uncontrollable that we start to relate to it as a nature of its own, as the **Next Nature**. Moreover, design is expanding toward open social systems that connect people with and in physical / digital realities; action-centric systems that are dynamic, and that crystallise from chaos; systems that are **Out of Control** and which demand other skills and approaches from designers.

The newly designed systems, products and services can be ambient, but they can also be worn on or close to the human body as **Wearable Senses**. This evokes challenges of combining hard electronics with soft materials, traditional craftsmanship with innovative technology and smart textiles, functionality with fashion, value propositions with gadgets, Do-It-Yourself with manufacturing, and sewing with soldering. Finally, you will find projects that make use of light and that explore the possibilities of new lighting technologies in a broad **light.time.space.move** perspective. These new, innovative, lighting applications open up opportunities of space, materials, reflections, and dynamics, and they do this by taking the human body and its basic values as a starting point.
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AEDH WISHES FOR THE CLOTHS OF HEAVEN

HAD I THE HEAVENS’ EMBROIDERED CLOTHS, 
ENWROUGHT WITH GOLDEN AND SILVER LIGHT, 
THE BLUE AND THE DIM AND THE DARK CLOTHS 
OF NIGHT AND LIGHT AND THE HALF-LIGHT, 
I WOULD SPREAD THE CLOTHS UNDER YOUR FEET: 
BUT I, BEING POOR, HAVE ONLY MY DREAMS; 
I HAVE SPREAD MY DREAMS UNDER YOUR FEET, 
TREAD SOFTLY BECAUSE YOU TREAD ON MY DREAMS

WILLIAM BUTLER YEATS
Aedh Wishes for the Cloths of Heaven

Had I the heavens' embroidered cloths,
Enwrought with golden and silver light,
The blue and the dim and the dark cloths
Of night and light and the half-light,
I would spread the cloths under your feet:
But I, being poor, have only my dreams;
I have spread my dreams under your feet;
Tread softly because you tread on my dreams.

William Butler Yeats