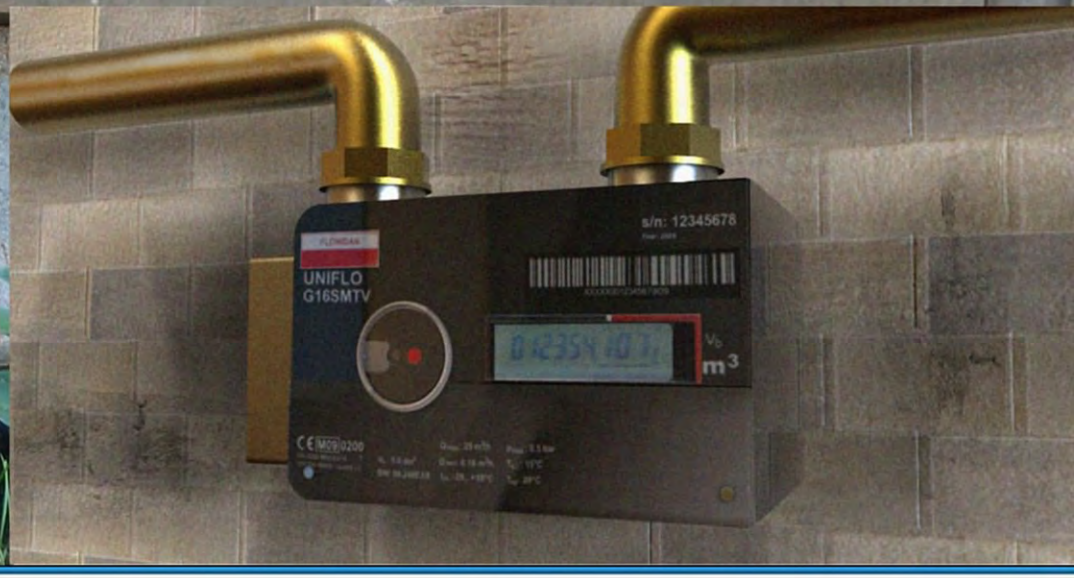
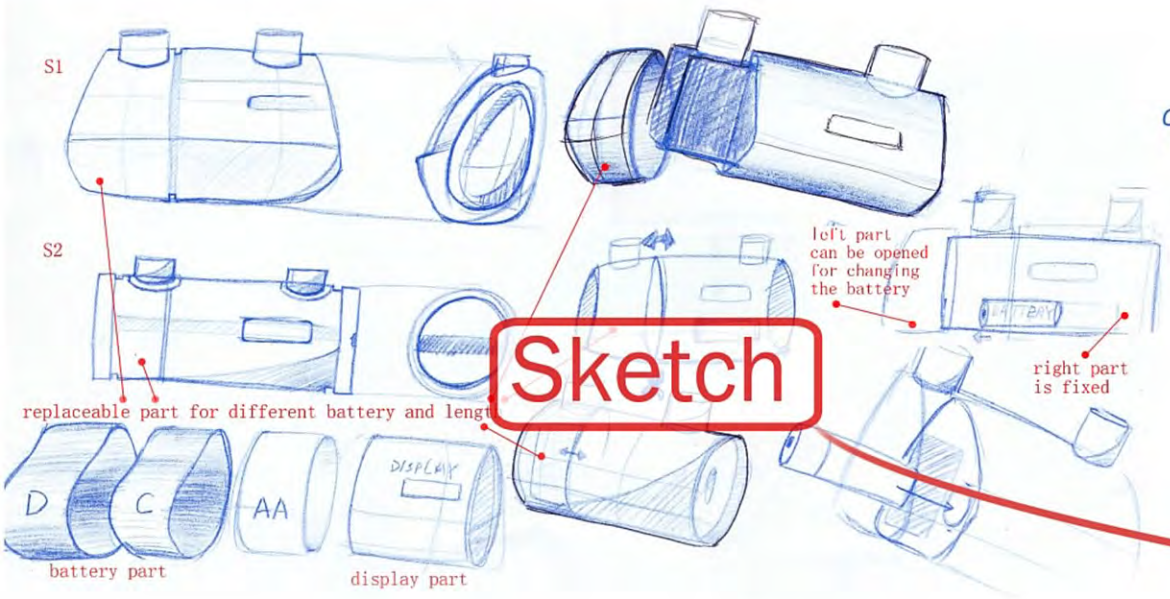
Gas Meter

Ultrasonic gas meter research and development

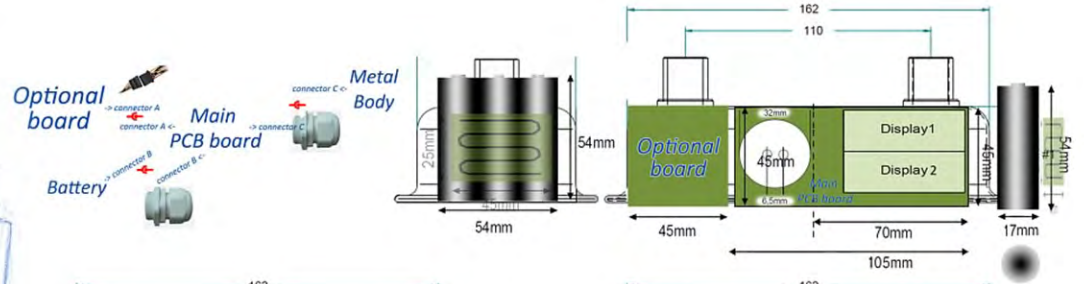

Outdoor
Design
sealed for protection

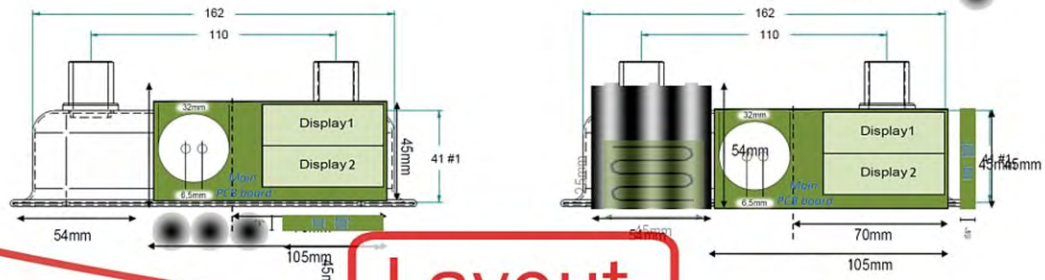

Indoor
Design
UNIFLO
G16SMTV


s/n: 12345678
UNIFLO
G16SMTV
m3

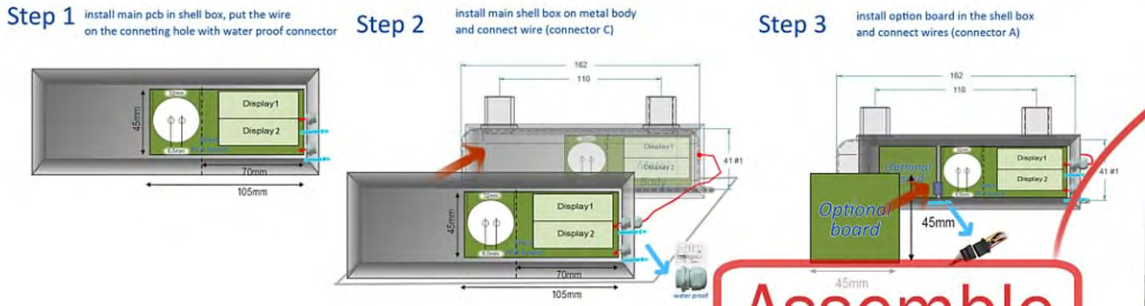


Sketch

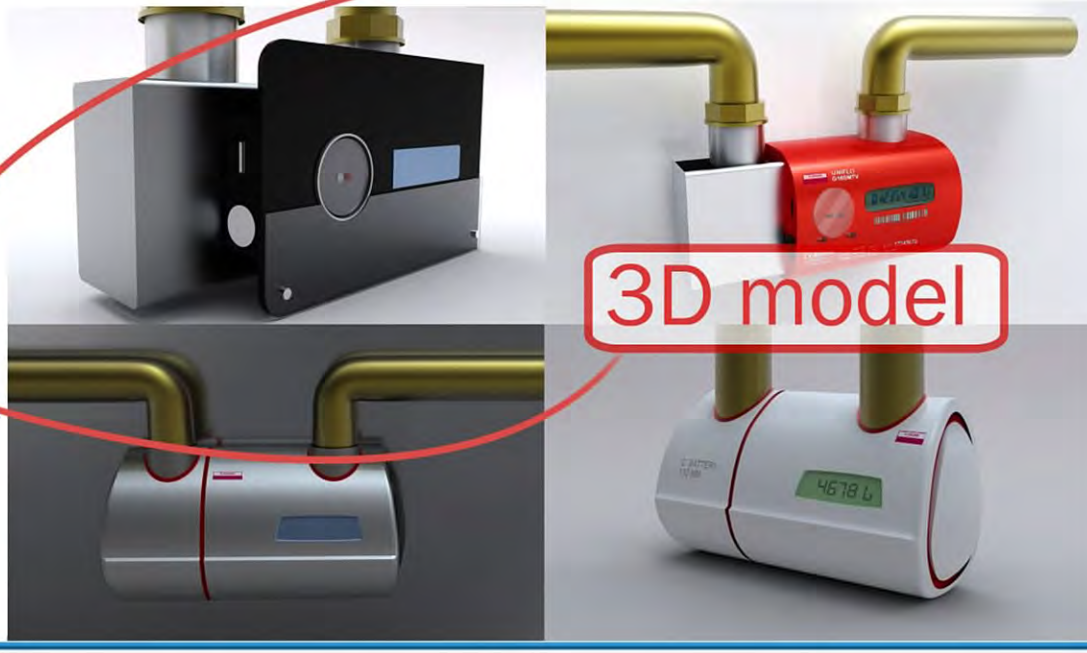




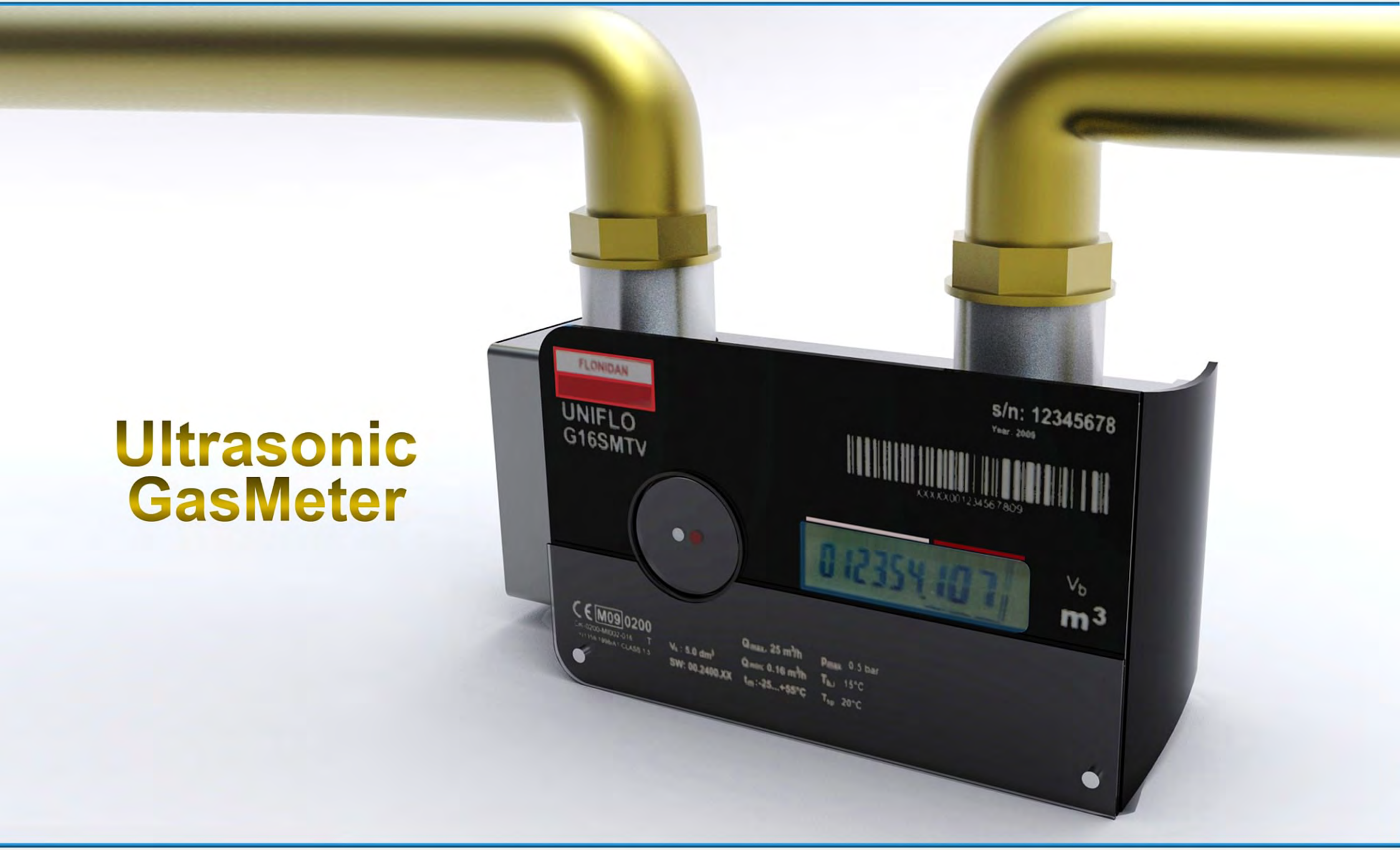
Layout



Assemble



Ultrasonic GasMeter



-Small -Stable -Accurate -Cheap -Safe -Smart -Extendable -Digital -Automatic -Sustainable

Card Safe

credit card reader design

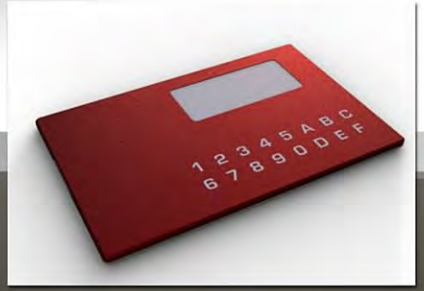
CardSafeSystem

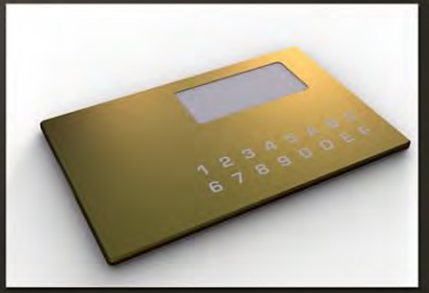
Simple Clear and Safe

This product is developed in order to protect against Card fraud.

More secure

- No unauthorized electronic communication with the CardSafe Unit is possible
- All data destroyed by unauthorized interference, by any means





Portable pocket/wallet sized design.
User friendly with functions recognizable to the user.
Units capable of carrying more than one card.
Capable of cosmetic changes to suit indivivdual tastes
DESIGN of users in the different market segments.

Easy to use

2-8 digit user defined code operation or/and Card PIN verification

Useability and Design

CardSafeSystem



Fit wallet

One time password






Remove hole



Charging port

Usability Design

small, smart, safe

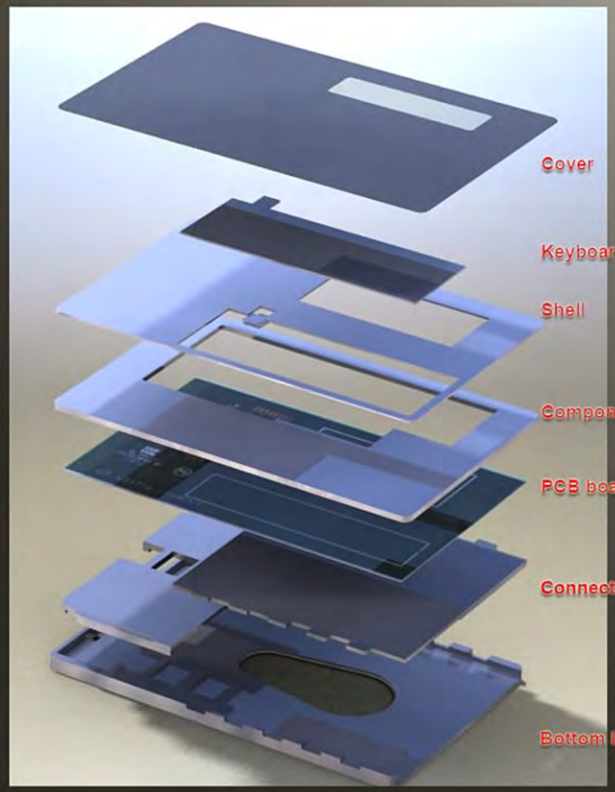
CardSafeSystem

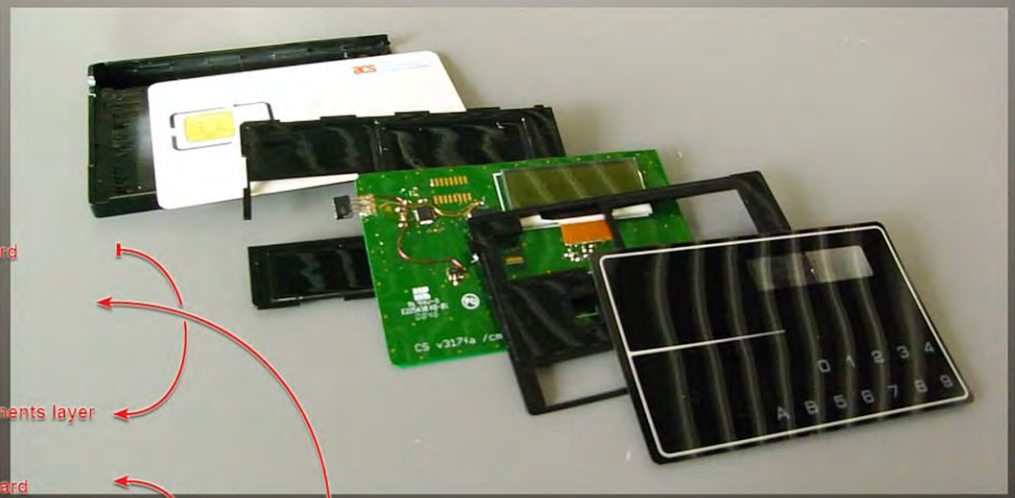
3 to 6 layers thinner and thinner

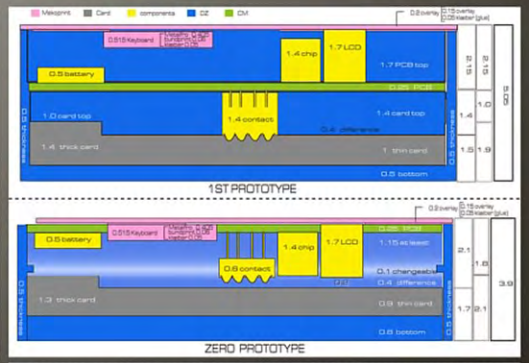
The initial mechanical design includes 6 layers. Card connector layer and card bottom layer will be integrated in PCB board and shell respectively.Components layer can be thinner due to replace thinner components, such as using a flexible LCD.

Mechanical design

Due to the difficulty and possibility of production, we designed several different versions in thickness. The goal of this product is 3 mm in thickness. And we start from 6 mm. Through the project undergoing, We reduce the thickness by combining some layer together, making hole on the PCB board, and choosing thinner component in mass production.







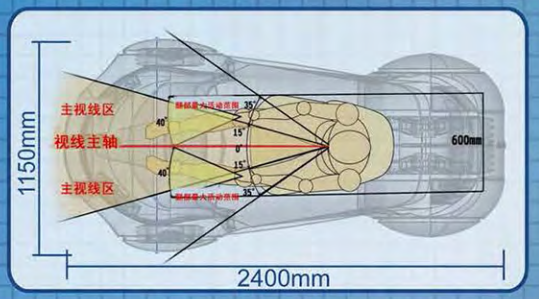
“Dophin”

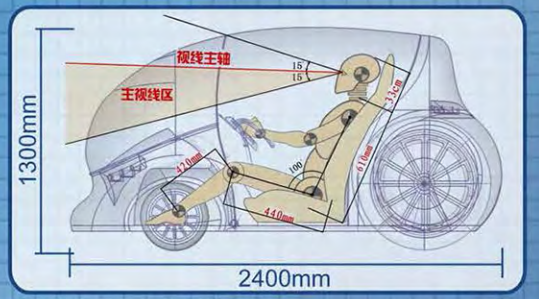
Renting car for metropolis

07大城市交通工具概念设计国际邀请赛

07'International Invitation Competition for Concept Design of Metropolitan Vehicle

多多 Dolphin





single car for rent, not for sell

design for single renting and driving, people need to drive “dolphin” from station to station. It has small size and easy to pass (1.3mX 1.15 m X 2.4m)

new energy

battery is a good chice
for short distance transportation

07大城市交通工具概念设计国际邀请赛

07'International Invitation Competition for Concept Design of Metropolitan Vehicle

CAR DESIGN

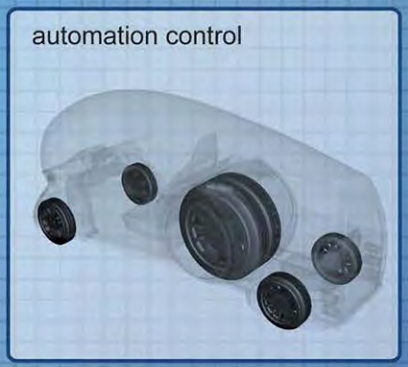
多多 Dolphin

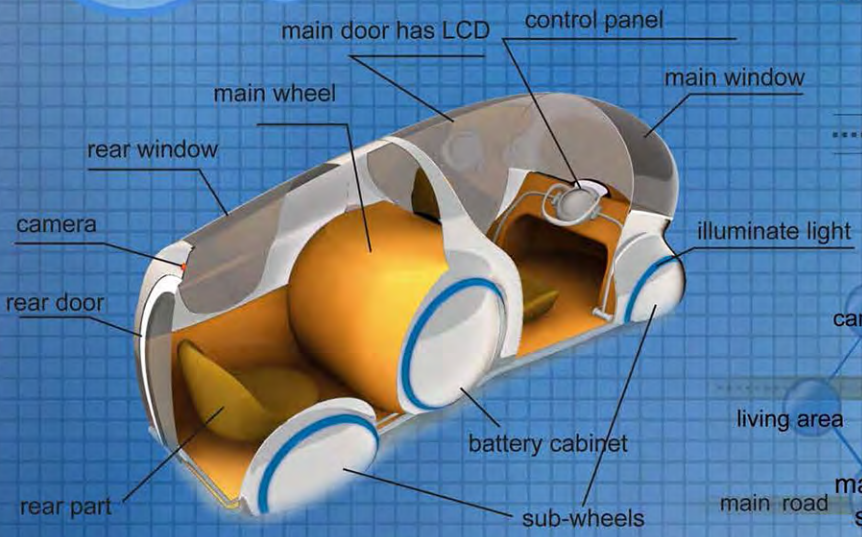
sharing traffic system

increase the public traffic proportion
in city tranffic and satisfy individual need

replace other traffic ways

use “sharing traffic to public traffic”
replace “walk to public traffic”
and “whole course private car”





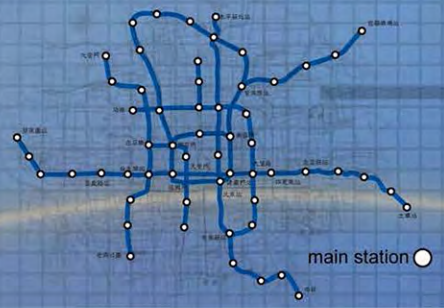
sharing traffic
self-rent sharing car for short distance and special destination

public traffic
subway or bus for long distance and common destination

sharing traffic
self-rent sharing car for short distance and special destination

“sharing car station” replace “private car park”

Beijing sharing car main station distributing (by subway)

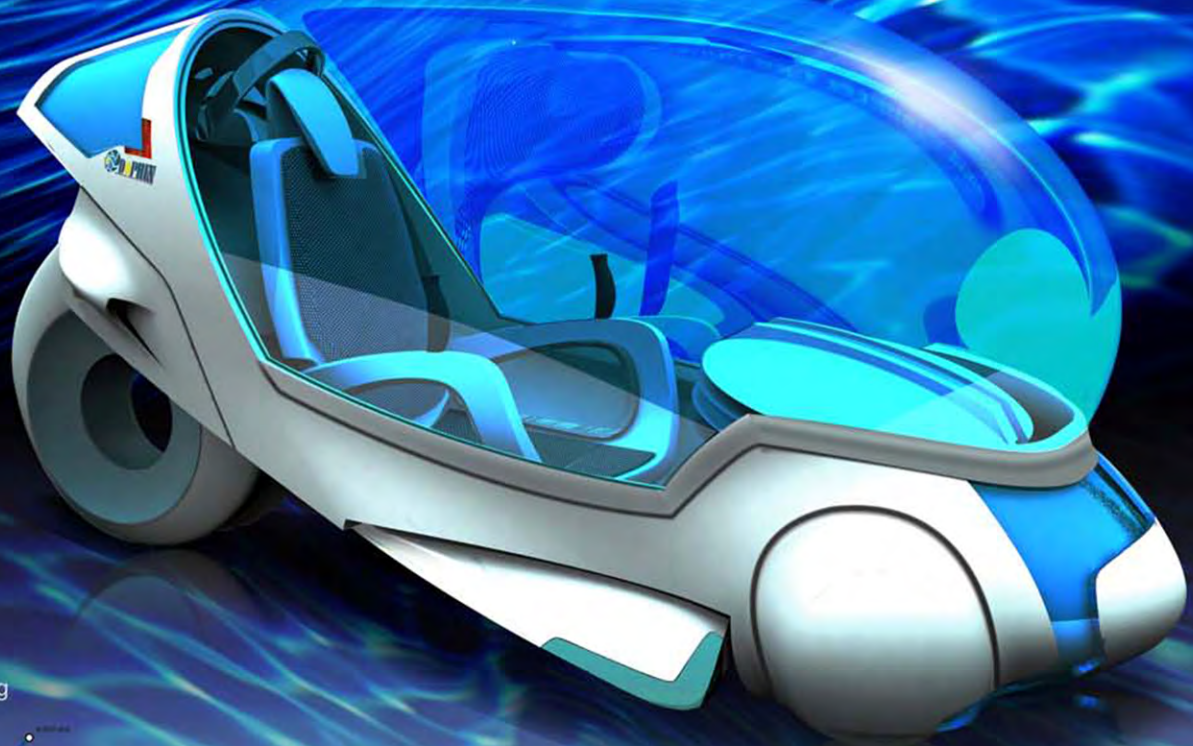


sketch map of sharing car sub station (Wangjing living area)

Dai Zheng's Design Album

DOPHIN
SHARING TRAFFIC SYSTEM

2007 Intrtnational Invatation Competition for Concept Design of Metropolitan Vehile

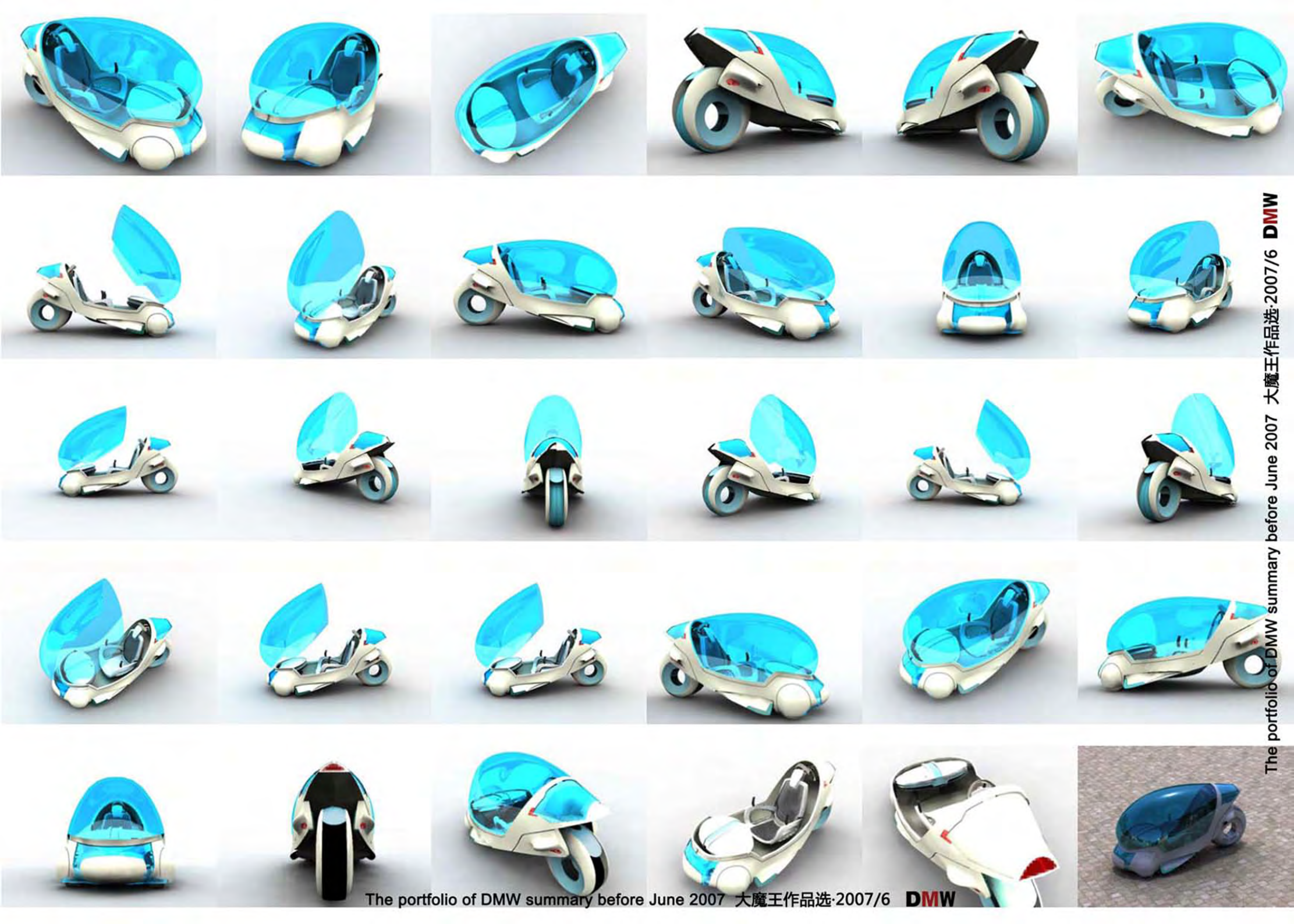


北京主线租用站示意图(地铁部分)

Beijing sharing car main station distributing (by subway)

The portfolio of DMW summary before June 2007 大魔王作品选·2007/6 DMW

The portfolio of DMW summary before June 2007 大魔王作品选·2007/6 DMW

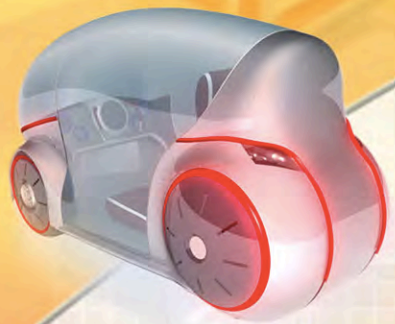


The portfolio of DMW summary before June 2007 大魔王作品选·2007/6 DMW

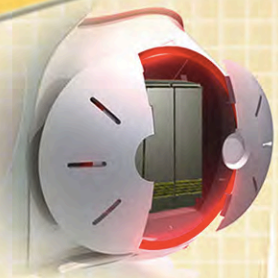
The portfolio of DMW summary before June 2007 大魔王作品选·2007/6 DMW

“联通新势力”全国大学生汽车设计大赛

中国智·梦想车

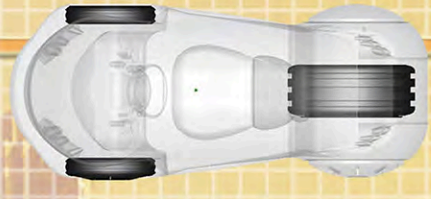


自由调节，可变色的控制台

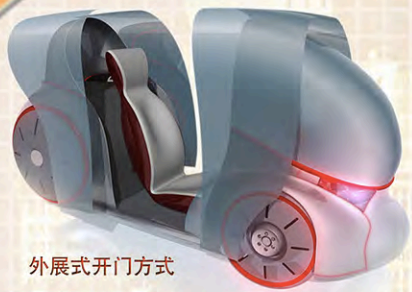


后轮箱内存放电池

座椅和方向盘可充分调节



前面两个辅轮 后面一个主轮



外展式开门方式

“众通”将城市生活“联通”起来

采用圆润造型

圆润适合单人车的体量,小比例的车体需要更稳定,更安全的感觉
大面积的曲面配合发光曲线体现了现代产品视觉特征
像海豚一样的自然流线风格,具有很强的亲和力
适合城市小区的风貌 具有温馨,时尚的风格
圆形顶部适合车顶与车门融合的结构

单人车

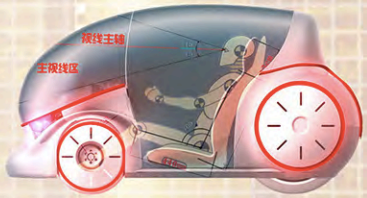
单人车设计可减小车体,减小车辆占地面积,提高通过性.
没有空驶率问题,更加有效的利用路面.
灵活,轻便的满足个人的交通需要,停车方便,机动性强
适于城市交中通中的个人交通

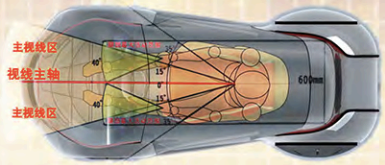
共享交通

“众通”需要在共享交通的系统下运行
使用者需要将车辆从一个租车站开到另一个租车站.
它将取代一部分私家车和出租车,
利用被取代的车辆停车位设立丰富的租车站.
通过大,小租车站的配合解决大城市交通问题

新型能源

汽车的电力能源和线串操控技术将成为未来汽车的发展方向.当前,电力能源非常适合小型车的应用.没有发动机的新型汽车结构使“众通”体积更小，更轻便。





众通 ZONE

便捷大众 城市畅通

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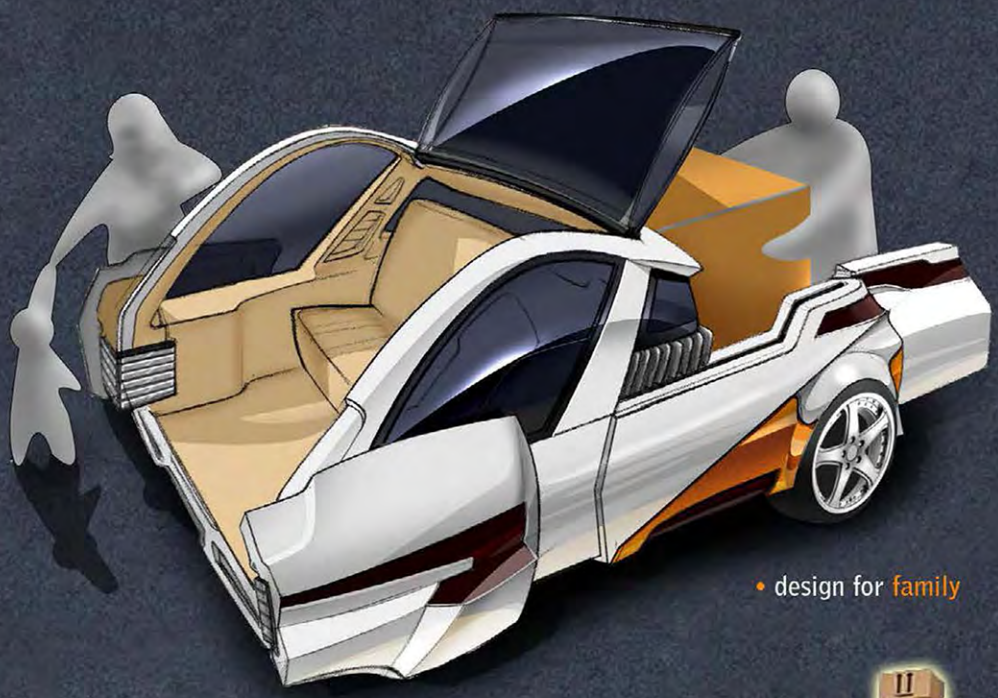
The portfolio of DMW summary before June 2007 大魔王作品选·2007/6 DMW

“Three”

Electronic car concept design

Design for FAMILY

• Three in use



• design for family

• Three seats in one row

It is designed for family with three people in big city. Seats are not separate, and it is more like a sofa. It widens the body to make enough room for 3 people and fully using the width of the road.

• Three people family

• Sofa seat

• Trunk-lid

Alterable rear can be folded in order to shorten the length. Three can carry large and high cargoes when truck-lid draws out. It always save the space of the city with a smaller size.

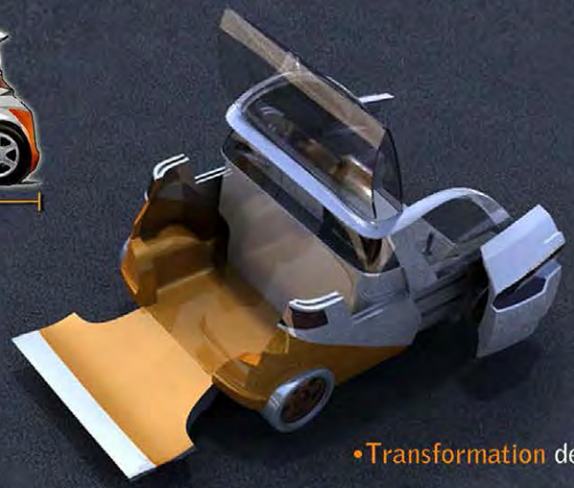
• Large and high cargoes

• fold and draw out

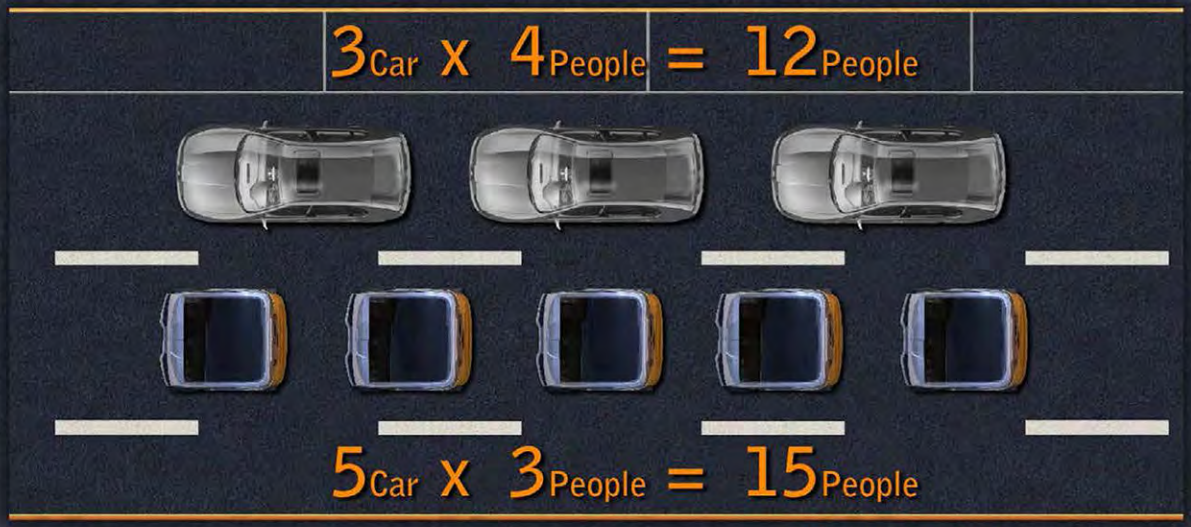
• Alterable rear

Design for TRAFIC EFFICIENCY

•Compact car



•Transformation design



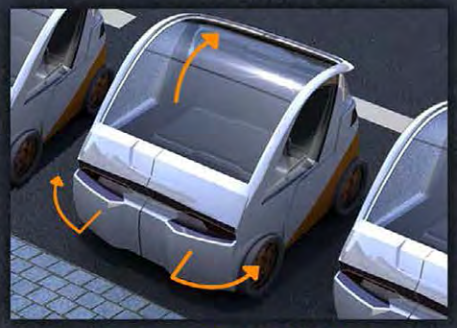
•More passengers, the same road

•Small scale

Because using the battery instead of engine and adopting a transformation design, its length is only 2200mm. And its wider body can carry 3 people for making full use of the width of the road. So it can provide more passengers in the same space for saving the road.

•Park more cars

A normal parking space can park two cars and user can open the door easier than before. As a result, it doubles the parking space, and it lowers the requirements of driving skill for parking process as well.



•Open the door easier

•Park vertically

THREE

2007 International invitation competiotion
for Concept Design of Metropolitan Vehicle

Design for NEW ENERGY

3 People Family
Metropolis
and Future
...

This design is based on new technolgy and aim for future, trying to provide a new transport mode for family in big city.

Changing the energy of vehicle is a trend for now.
When the engine disappear, what the car will be?
Therefore, Three was born.

A vehicle designed for metropolitan ought to meet the need of the families in cities, and improves city traffic environment better as well.

• car without engine

• One-hand controller

• Front door

•New Energy

This design is based on electricity instead of liquid fuel. Fuel cell and battery can replace engine. It will save the space of car and provide a possibility for a new steering system without engine.

• Easier Steering system

Wire Control Technology is widely used with electricity energy. An one-hand controller could be easier to study and can save space as well. Therefore, a front door concept could be realized

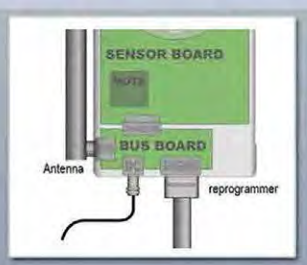
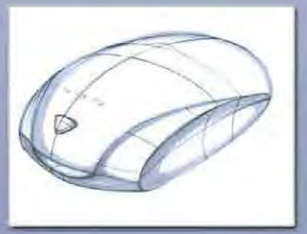
• Front door

It could bring more convenience for people get in and out without any embarrassment.
It is more open, more free and more comfortable.

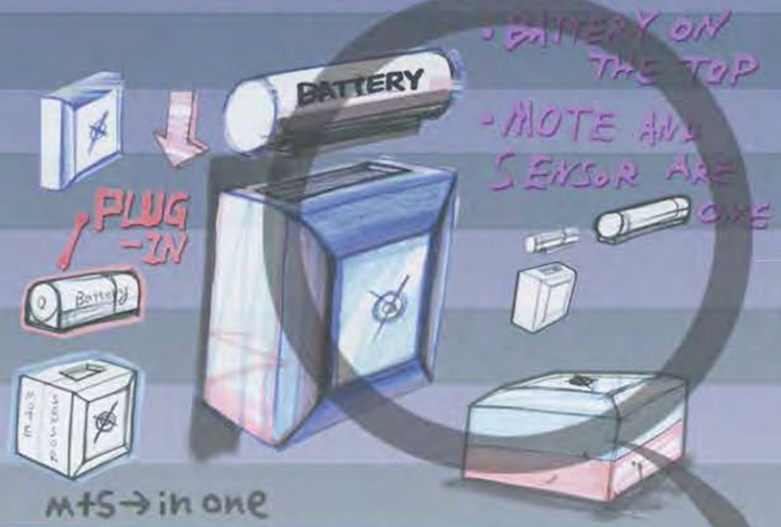
Crossbow

Wireless sensor networks

Crossbow Technology Inc.®
Enclosure design

Issues		Solution concept		Analysis	Result
	When changing the battery, user need unmount sensor by screw.		Design the battery cover on the front of the box to avoid screwing.	It could be highly benefit and facilitate final user. It has high prioity	ACCEPT
	Different products need different battery types, that leads to design different enclosures.		Design different battery boxes and only one main body to decrease the cost of manufacture.	Technical group developed energy saving chip. All battery can be AAA type.	CHANGE
	Different functions need to redesign electric circuit entirly. The position of I/O ports need to change also.		Optimize standard I/O ports into one BUS board, inluding AC input, USB, and antenna. Keep the circuit modular.	Modulization is a trend in electric circuit design. The stationary position of I/O ports cans avoid redesigning enclosure and increasing cost.	ACCEPT
	For now, the style of enclusre is too “cold”. User need an intimate product in thier working environment.		Design dynamic and round shape or high-tech feeling to be more intimate with user	An intimate style is necessary to a person in work. It also attracts more custiomers pay attention on this product .	ACCEPT
	Many components increase the price of manufacture.		Use the same part in both top and bottom to decrease the cost of manufaucture.	It is hard to deal with the different function of top and bottom. This concept is hard to be stable.	CHANGE

· sketch for useability design



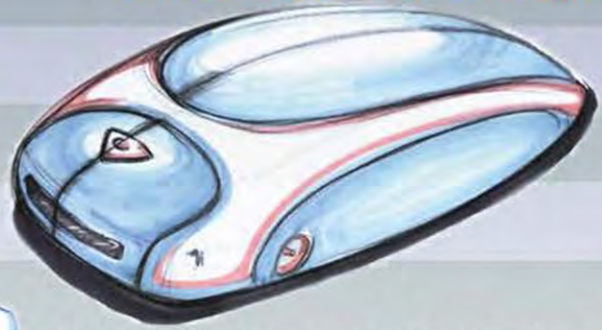
that is a box need't to change the mote or sensor but it can change battery easyly

round shape for easier to handel

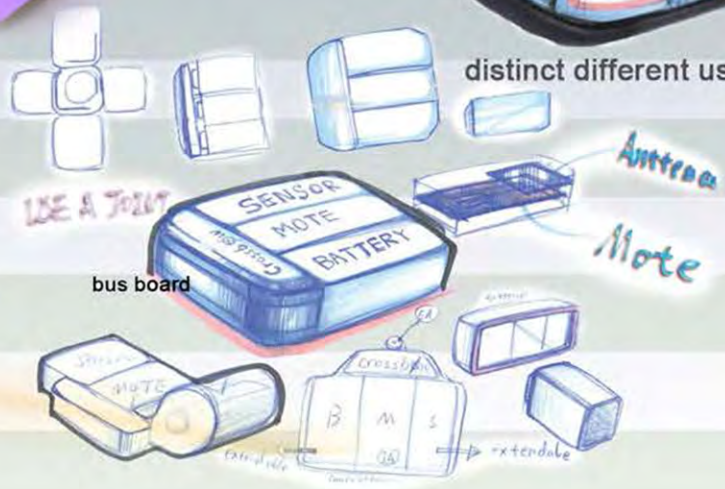
· sketch for product components

Collect input/output ports togather
Most products can use the the same bus board

· Sketch for different style

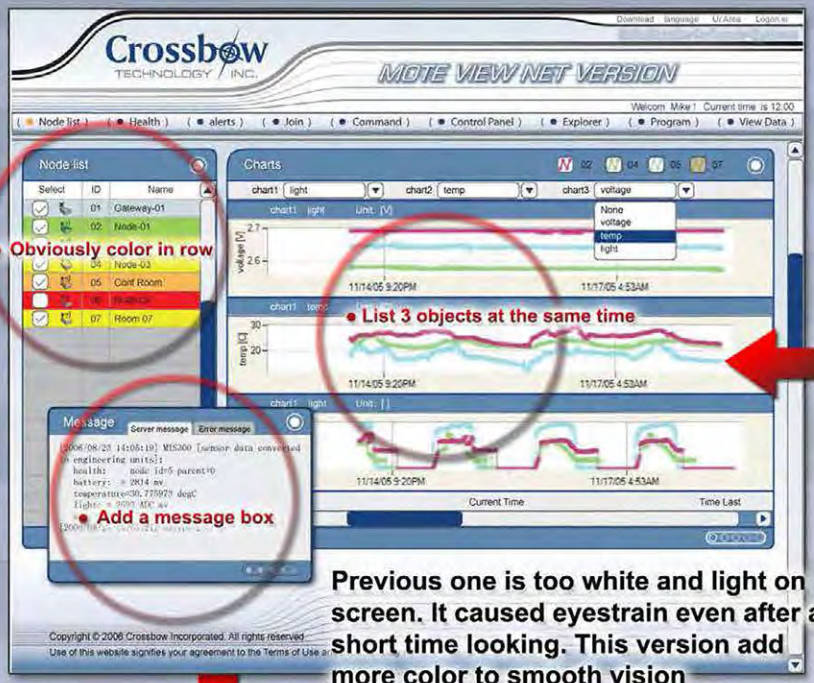


distinct different useing area by color



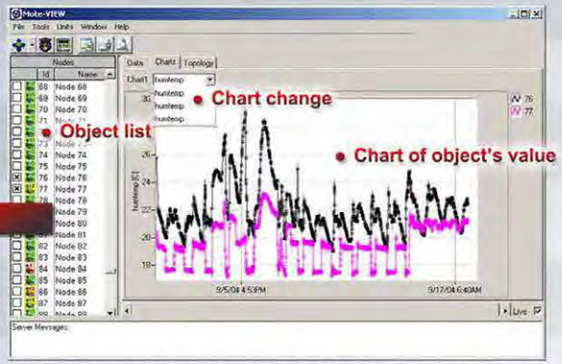
Crossbow
TECHNOLOGY INC.

Crossbow Technology Inc.®
Web application design

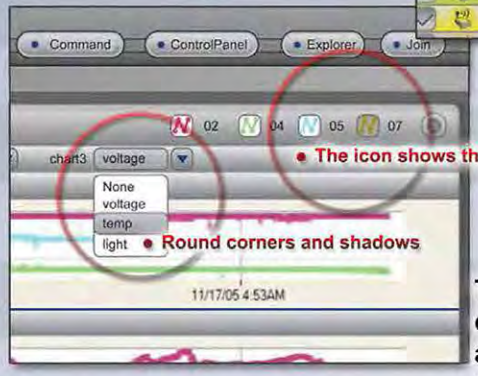


Previous one is too white and light on screen. It caused eyestrain even after a short time looking. This version add more color to smooth vision

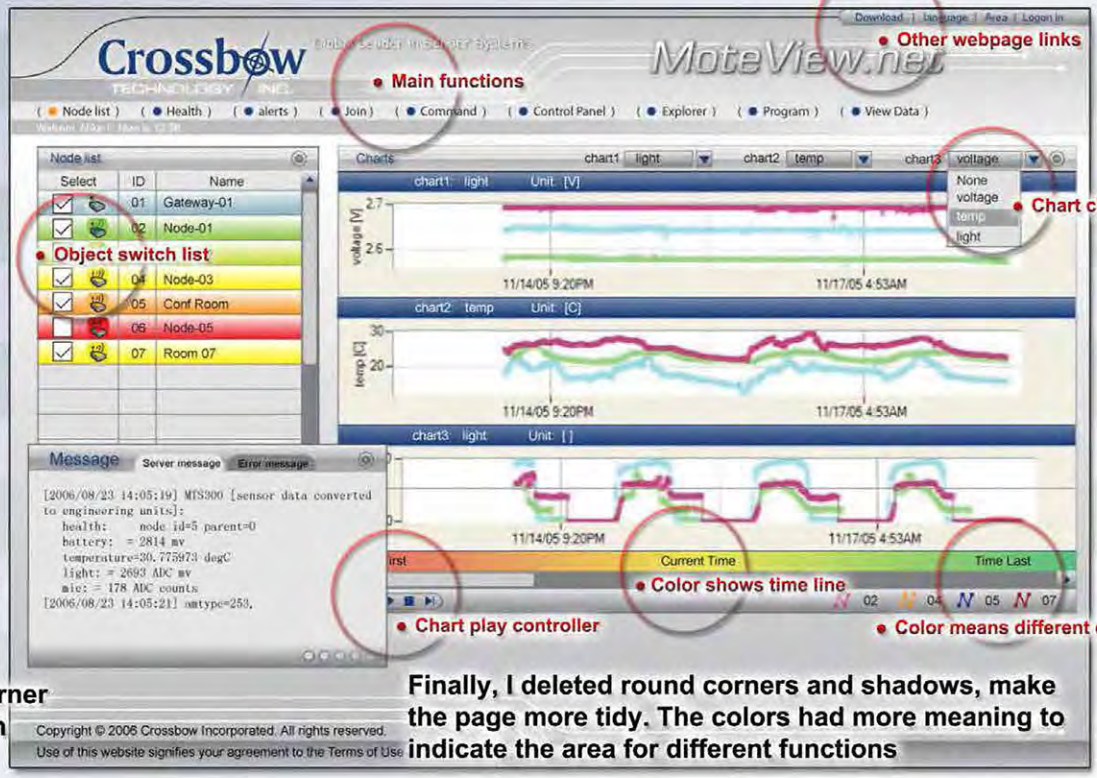
This is the basic design, and gives simple vision and the same HCI structure as the desktop version. Leader hope it looks more high-tech and modern.



This design followed an original desktop application for developing a website version.



Too many effects make webpage complicate and boring. Round corner and shadow cost much time when make a HTML-based web page.

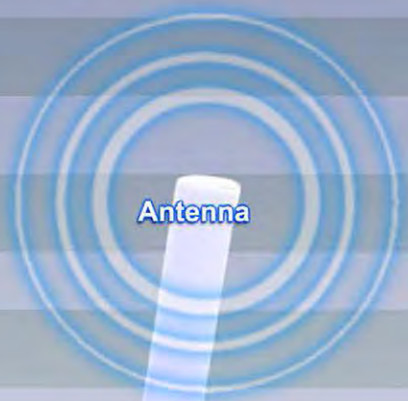


Finally, I deleted round corners and shadows, make the page more tidy. The colors had more meaning to indicate the area for different functions

Crossbow Technology Inc.®
Enclosure design

• When changing battery, user needn't unmont hole product.

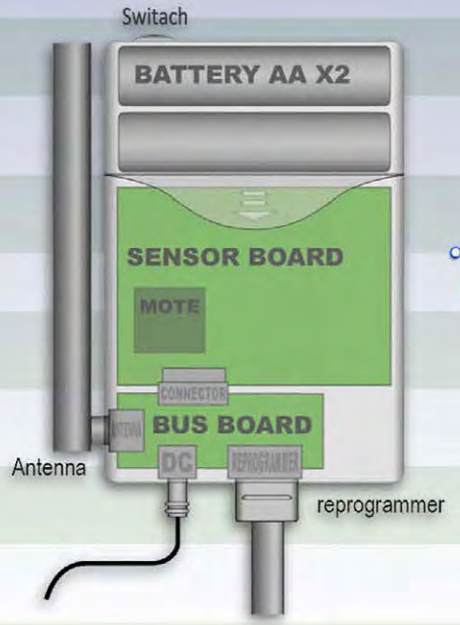
• Slide Battery Cover



Antenna

• Different style design for explording high-tech and intimate feeling.

• Product overview



• Unified Bus Board to optimize electric circuit

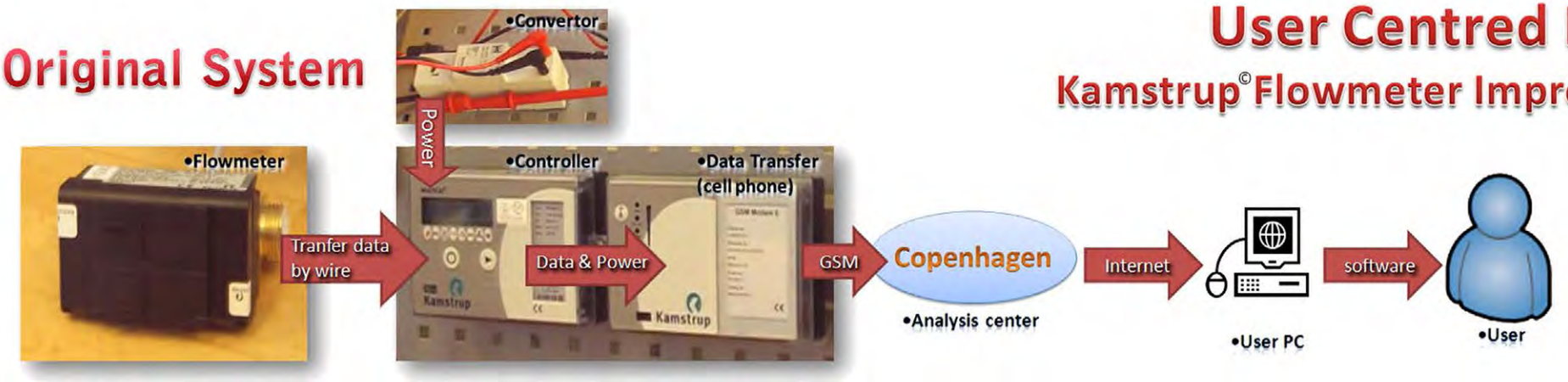
Liquid FlowMeter

Wirless flowmeter system design

User Centred Design

Kamstrup© Flowmeter Improvement

•Original System



•User dilemmas and needs

•Need more data, each pipe need to install a flowmeter.

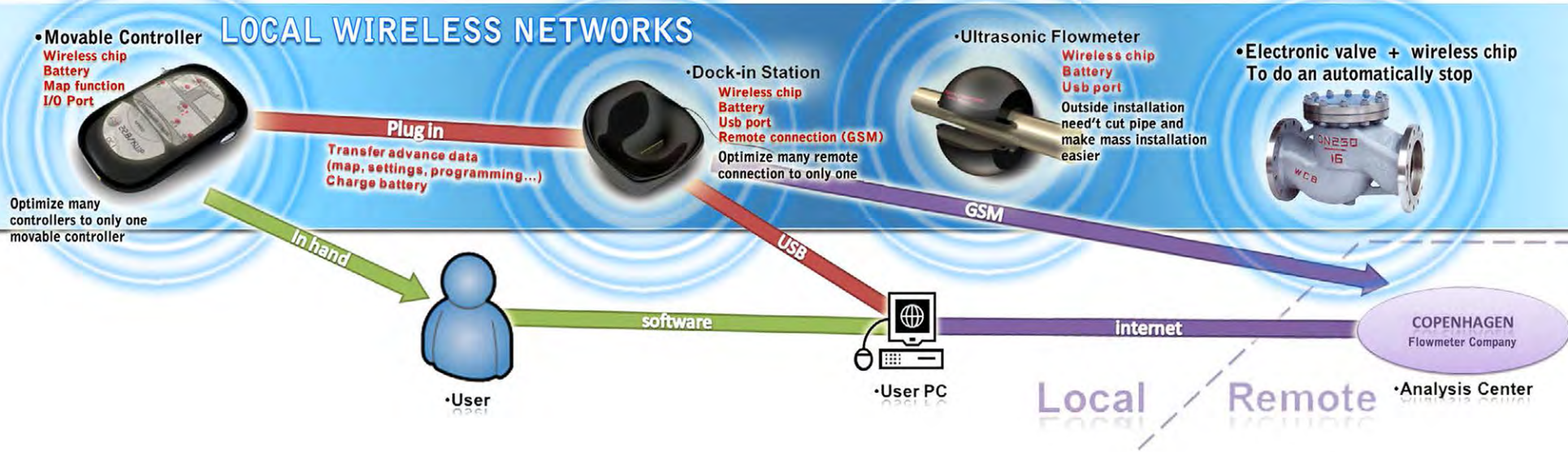
•Each flowmeter has a controller and a remote connection component (GSM,like a cell phone), it need to be optimized.

•Data delay, because data is sent to flowmwter company first, user gets it by internet

•Leaking emergency need automatically stop and alarm.

•Go between desk and flowmeter very often, Users need get data anywhere.

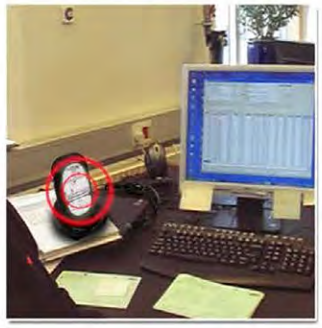
•New System



•Emergency stop and alarm

During leaking emergency
Flowmeter gives feedback to
the controller by wireless

Elwctronic valve
automatically stopped

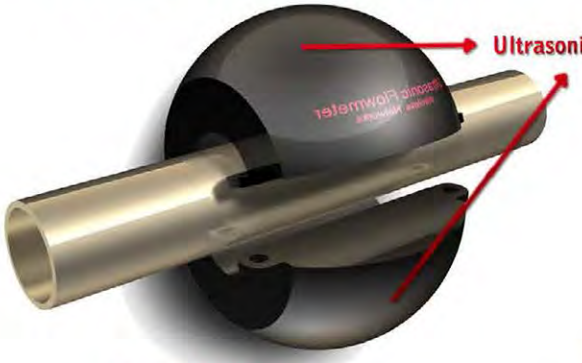


Controller alarms and shows
the emergency position.

Janitor can carry controller
with him for guiding him to the
flowmeter and fix the damage.

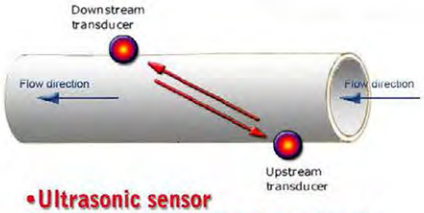
After damage fixed, janitor need
push the back of the controller to
restart the flowmeter system

•Easy installtion



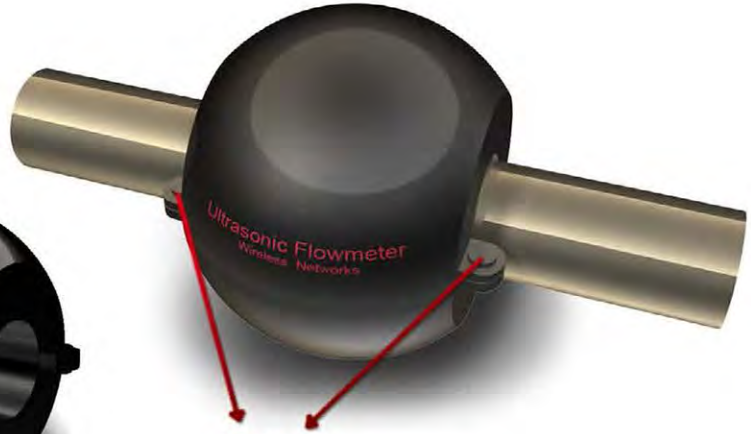
•Outside installation
Do not need to cut pipe.
Use battery and wireless chip
to avoid mass wires installtion.

Components:
•USB port
•Battery
•Wirless chip
•Ultrasonic sensor



•Ultrasonic sensor
These sensors can get the value of
liquid speed from out side of the pipe,
It provides possiblity for installing
without cutting pipe .

•USB Port
Each flowmeter can charge the
battery and communicate directly
with computer by USB



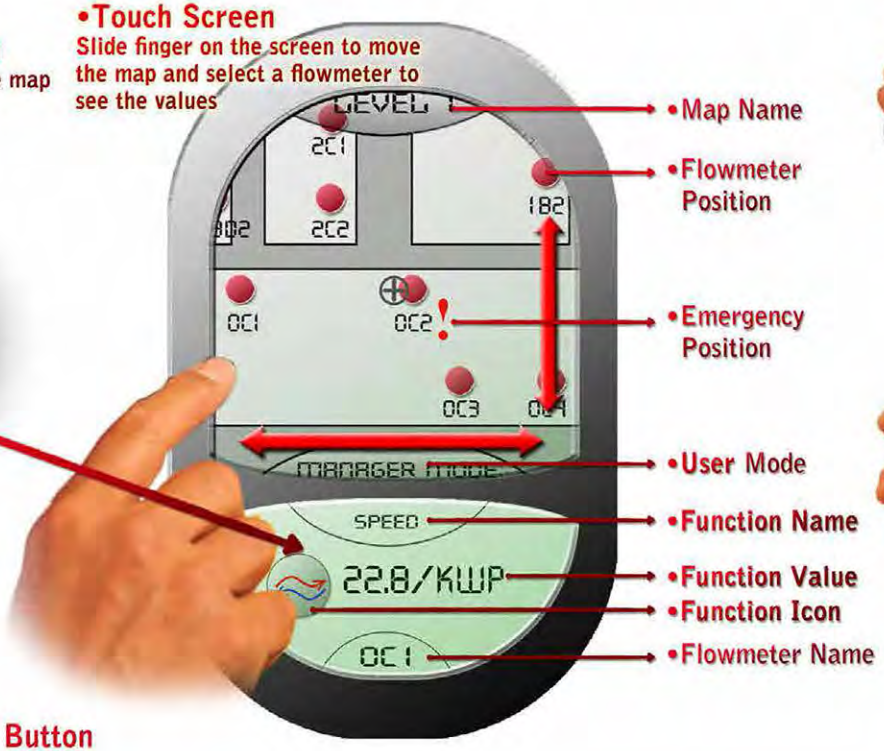
•Stable lock
Keep the angle between two
ultrasonic sensors in the range.

•Controller interface

•Movable Controller
There is a map on the controller.
It can guide the user to the flowmeter location. The whole system just need only one movable controller.

•Slide Button
Zoom and lock the map

•Touch Screen
Slide finger on the screen to move the map and select a flowmeter to see the values



- •Map Name
- •Flowmeter Position
- •Emergency Position
- •User Mode
- •Function Name
- •Function Value
- •Function Icon
- •Flowmeter Name

•Restart Button
After fixed problem,
User need push this button
5 seconds to restart working

•Tilting Action
Another way for moving the map is by tilting. It follows user's instinct.

•Dock-in station

•Power and Data
Movable controller can charge the battery on station, and transfer advanced data, such as download map, updata software, synchronize time, etc.

•GSM Remote Connection
There is a GSM connection inside (like a cell phone) for sending data to another city (analysis center). This is the only one GSM connection in whole system.

•Computer Connection
Map is different to users.They need edit and transfer their own map to the movable controller. Advanced analysis of data need to run on the computer as well.