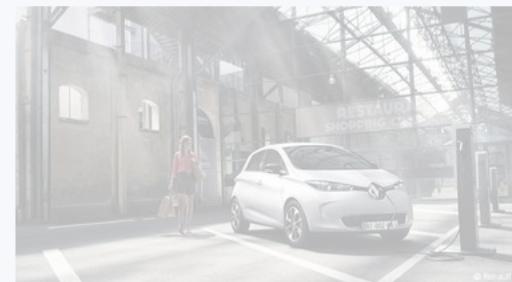


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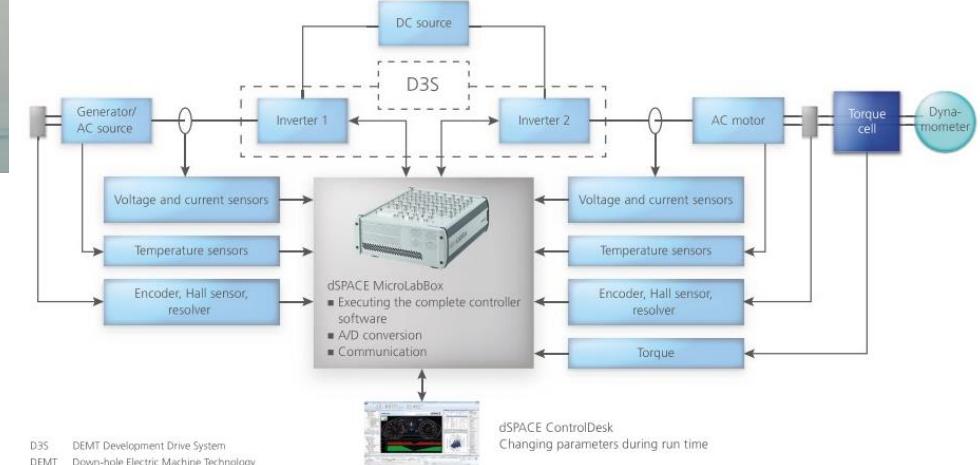
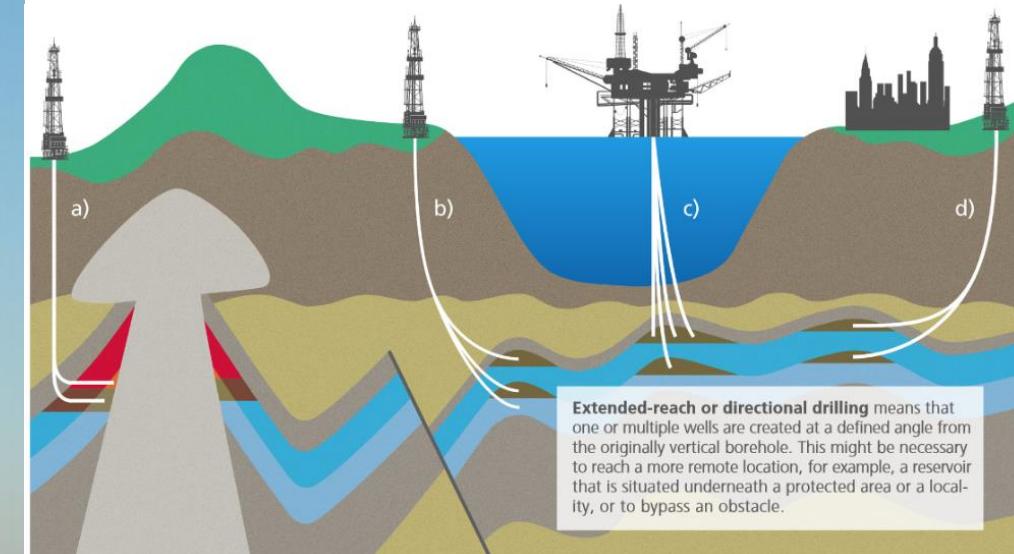
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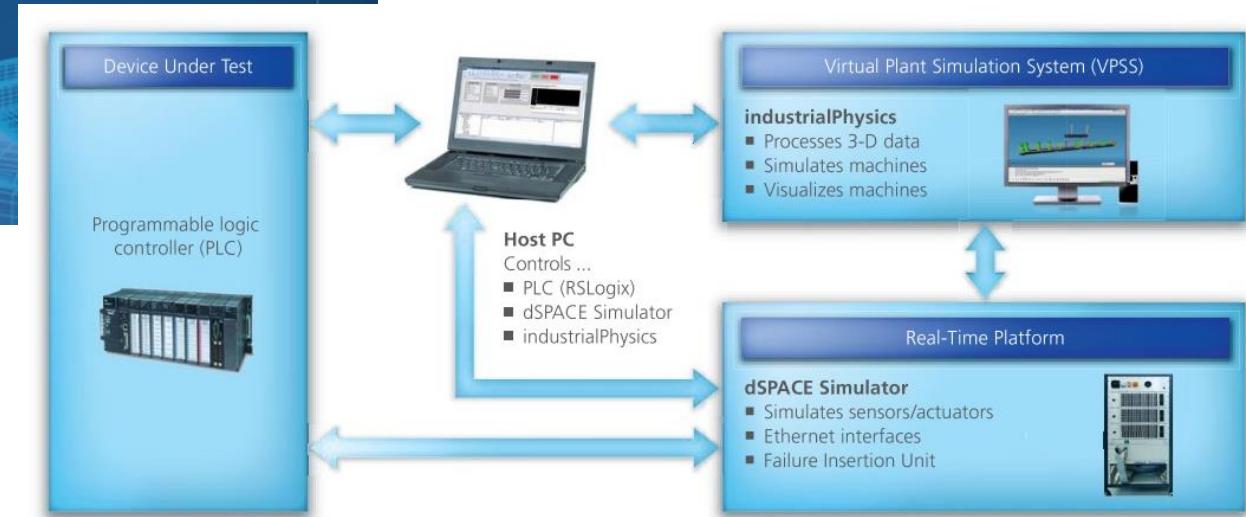
NEWS

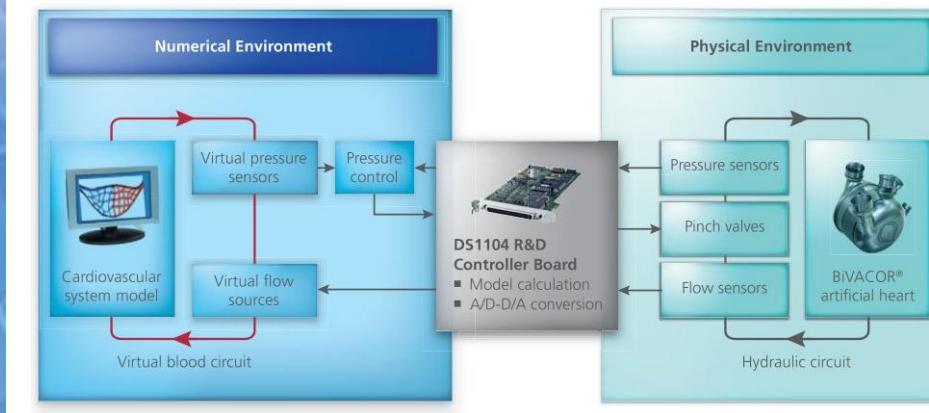
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Inteligentné vrty

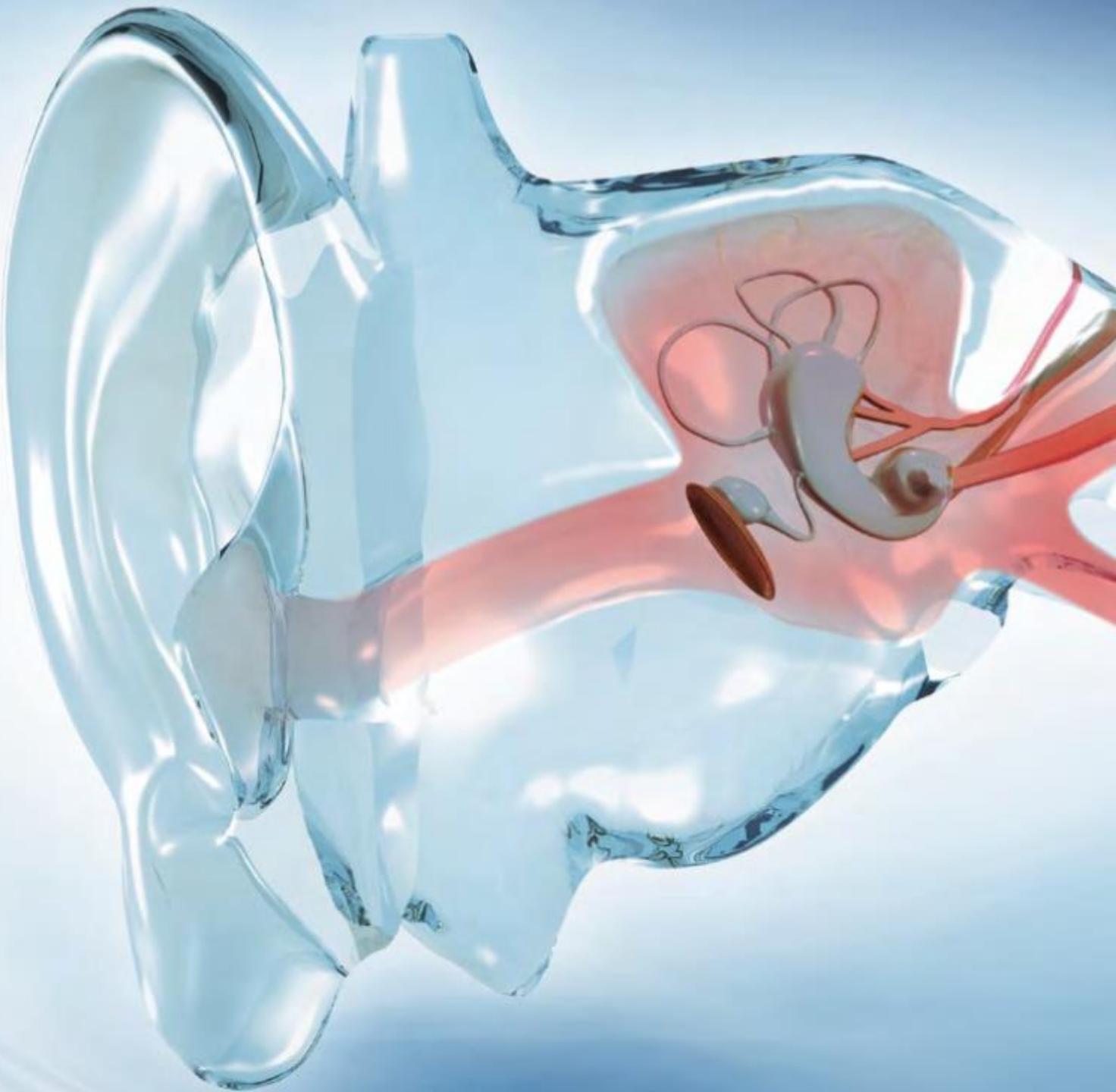


Virtuálne mlieko vo virtuálnych kartónoch

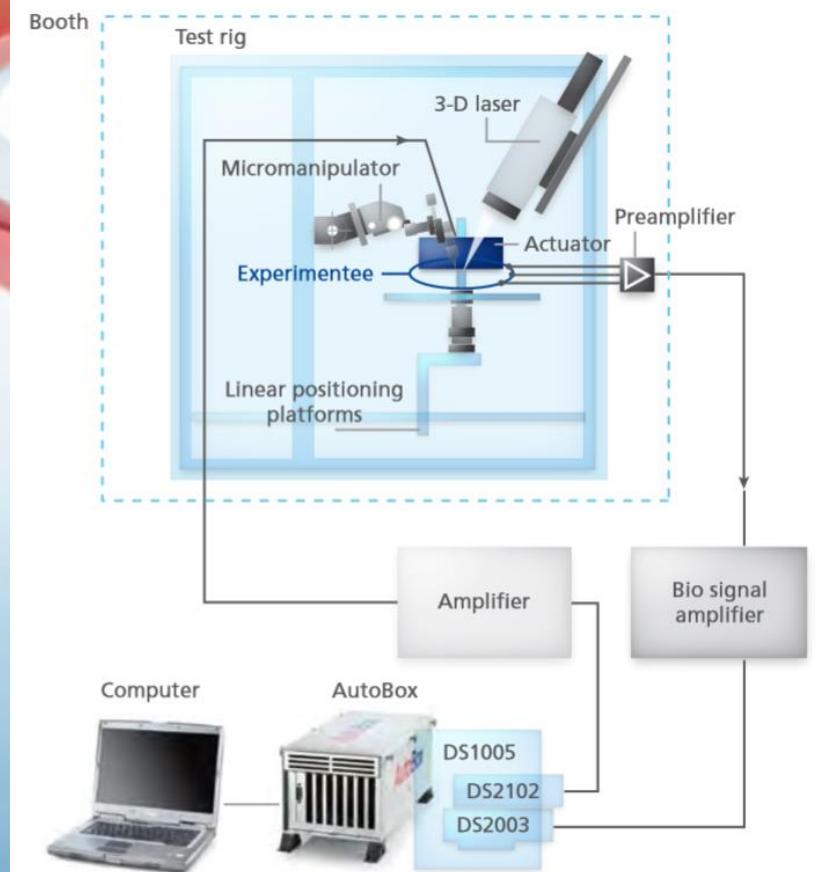




Virtuálne krvné cievy

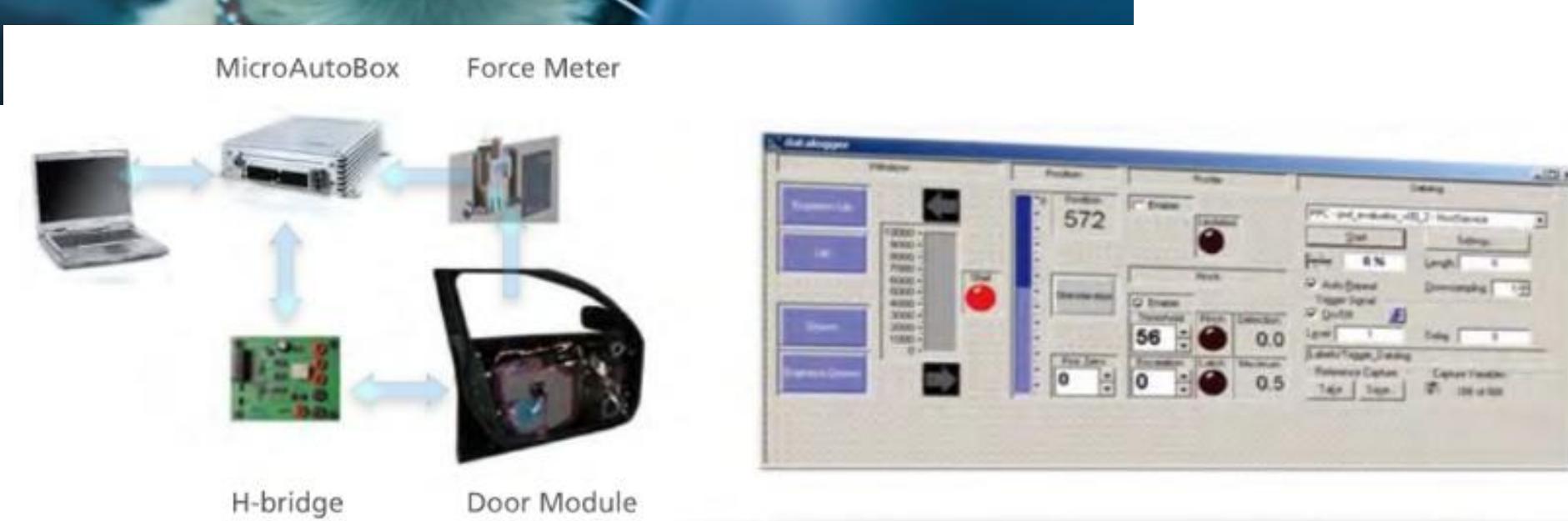


Samé ucho





Zvýšenie bezpečnosti okien

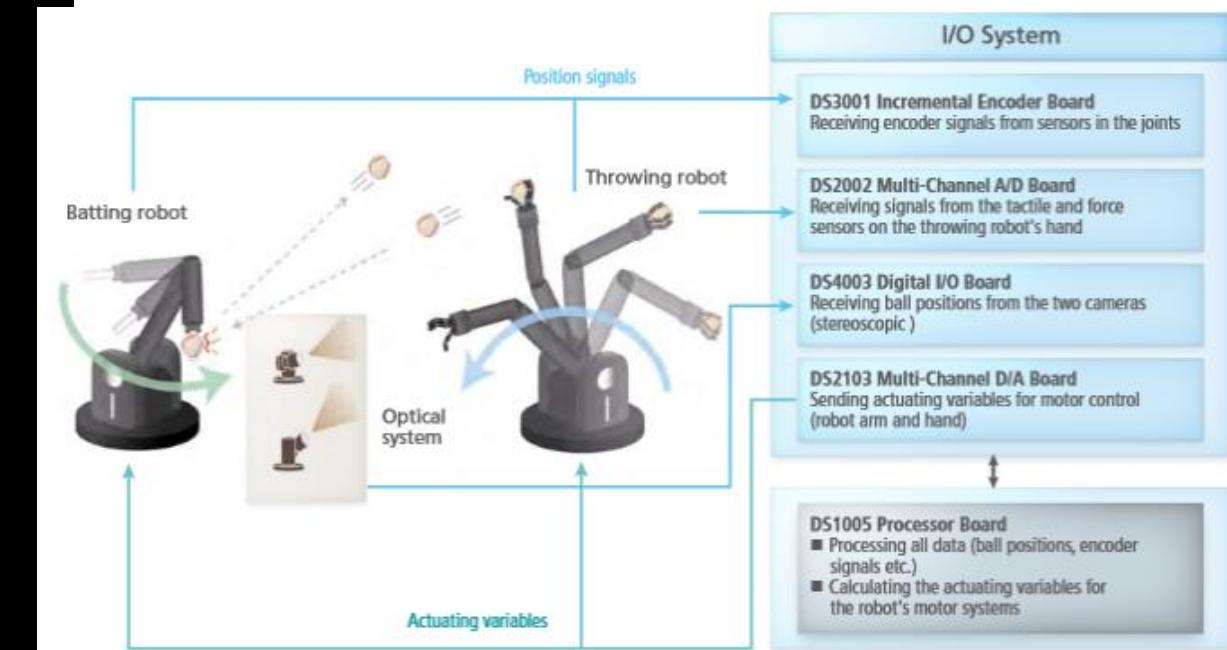




Top model pre NASA



Home Run v Labáku

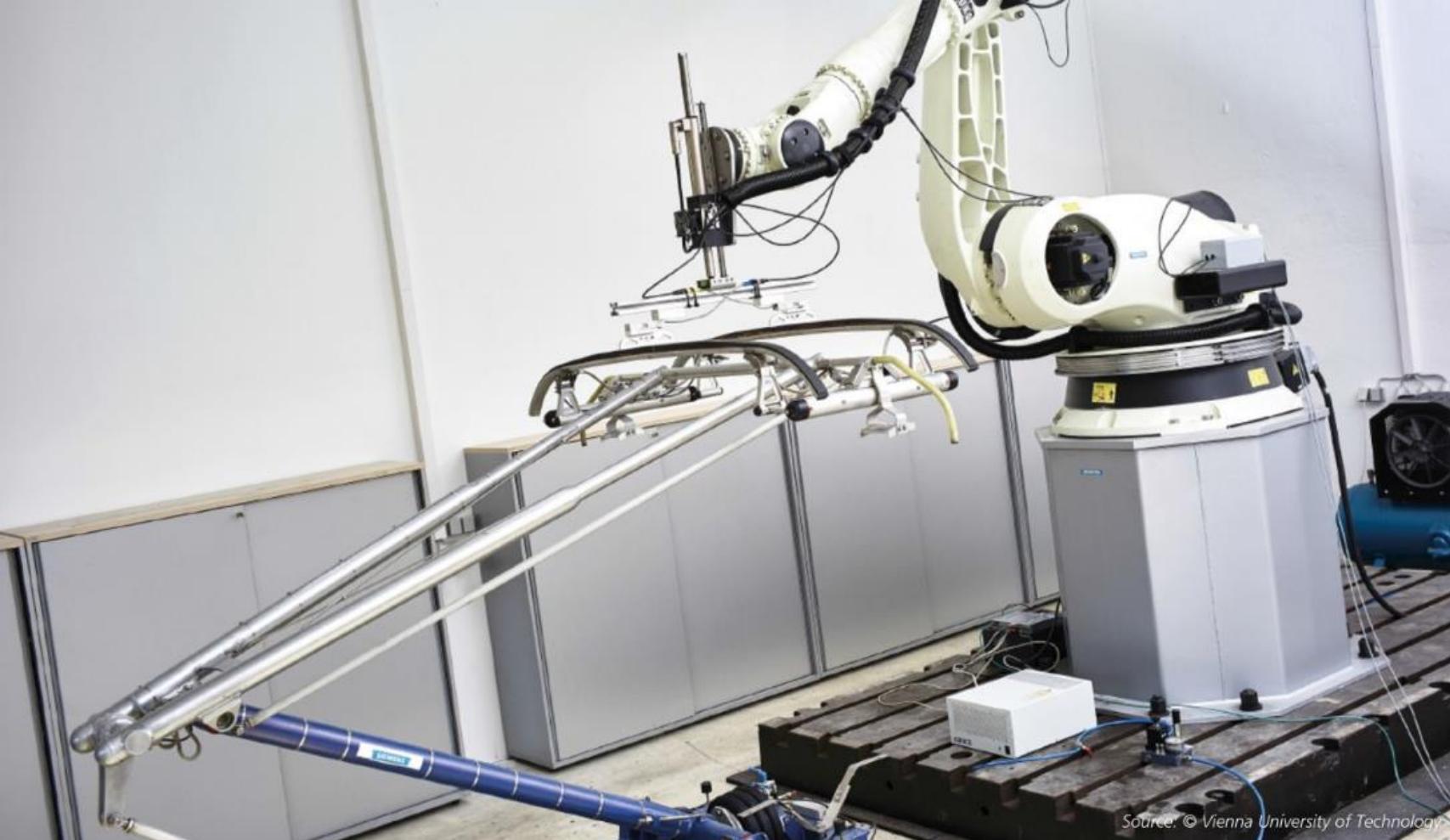




Superbike Success



Turbína na palube



Udržiavanie kontaktu pri 300 km/h



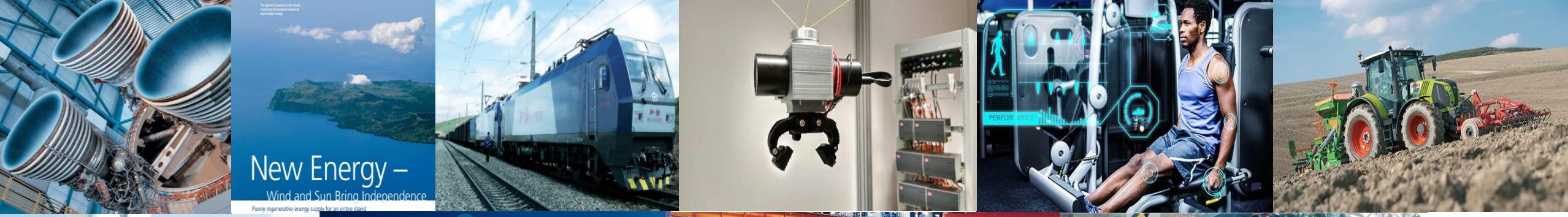


From 3-D Printing to **3-D Sprinting**

A unique algorithm enables 3-D printing at twice the speed



Acc. Limit	1 m/s ²	3 m/s ²	5 m/s ²	10 m/s ²	30 m/s ²
Printing Time	3:59 h	2:42 h	2:21 h	2:06 h	1:50 h
Baseline					
FBS					





1) Inputs/Outputs

AIn: 8x 14-bit, 24x 16-bit, -10 - 10V

AOut: 16x 16-bit, -10 – 10V

DigIO: 60 bidirectional(12 RS422/485type)

2) I/O funkcionalita

6 x Encoder sensor input

2 x Hall sensor input

2 x EnDat interface

2 x SSI interface

Synchronous multi-channel PWM

Block computational PWM

3) Rozhrania

USB (flight recorder)

2x CAN

2x UART

1x LVDS

Gigabit Ethernet

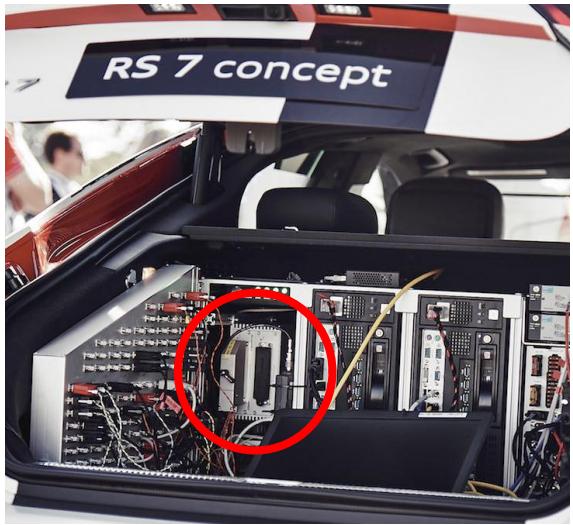
MicroLabBox

RAPID CONTROL PROTOTYPING

Kompaktný vývojový systém do laboratórií, s viac ako 100 I/O kanálmi rôznych typov a programovateľným FPGA



AUDI RS7 Concept



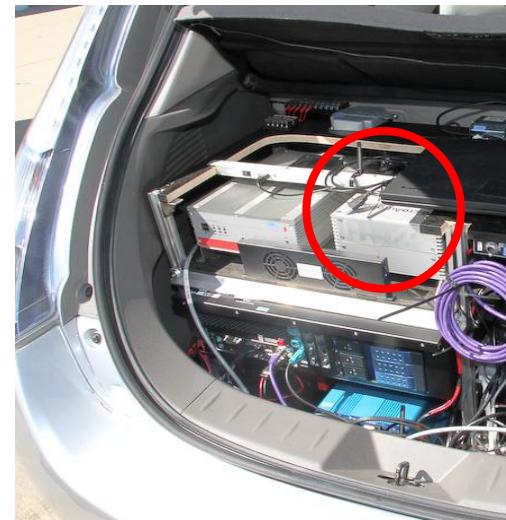
ZF



RCP skracuje vývojový čas tým, že umožňuje rýchlo vyvinúť, optimalizovať a testovať nové riadiace stratégie v reálnom prostredí bez nutnosti manuálneho programovania. Pomáha včasne detektovať a okamžite opraviť chyby dizajnu.

RCP

MODEL-BASED DESIGN



Nissan



Porsche InnoDrive

**1) Rozhrania a I/O**

Modulárny systém

2) Odolnosť

SCLX I/O boards

3) Integrovaný zdroj

12V, 24V, 48V

5% - 95 %

6 slotov SO 16750 – 3:2012/4.2.2 /4.1.2.4

SCLX AutoBox

RAPID CONTROL PROTOTYPING

Výkonný in-vehicle systém s odolnosťou voči šokom a vibráciám a vysokou teplotnou odolnosťou



HARDWARE IN THE LOOP

MODEL-BASED DESIGN

ECU „si myslí“,
že je v
jazdiacom
vozidle v
reálnom
prostredí



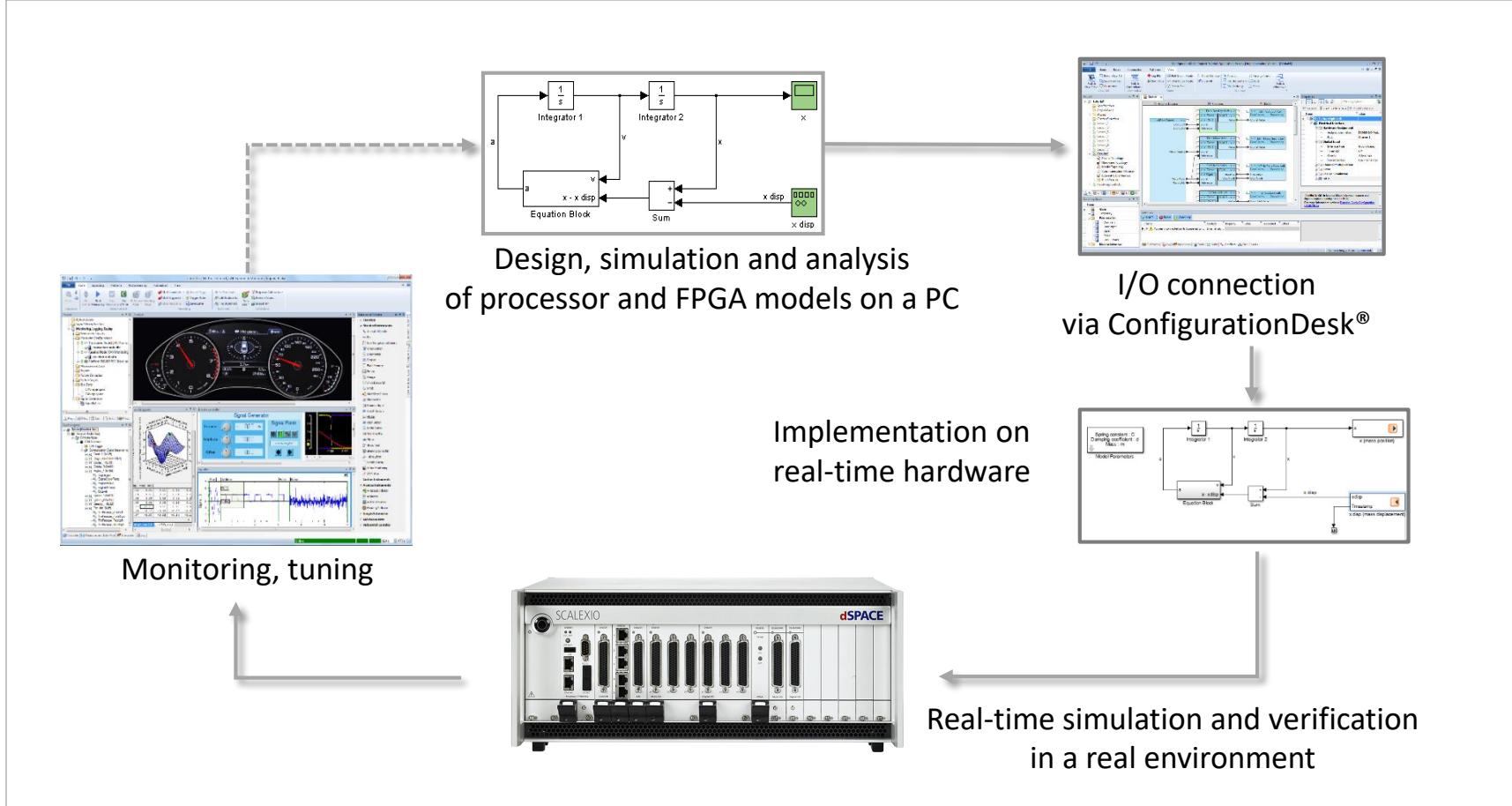
PORTFÓLIO HIL

HARDWARE-IN-THE-LOOP



SCALEXIO flexibilné a modulárne systémy v rôznych veľkostiach pre HIL projekty v rôznych priemyselných odvetviach ako automobilový priemysel, letectvo, zdravotníctvo, doprava alebo výskum.

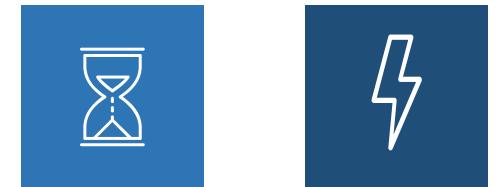
Poskytuje výkonnú real-time technológiu a komplexnú podporu zberníc pre náročné aplikácie dneška a budúcnosti ako autonómne vozidlá, elektromobilita sietová komunikácia.



WORKFLOW

HARDWARE-IN-THE-LOOP

Dizajn v Simulink, I/O konfigurácia v ConfigurationDesk®, automatické vygenerovanie a implementovanie aplikácie na real-time platformu, monitorovanie a experimentovanie v ControlDesk

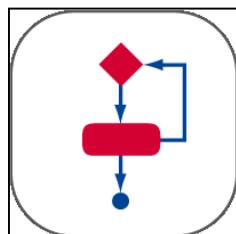


automatická
implementácia
MATLAB/
Simulink
modelov na
dSPACE HW

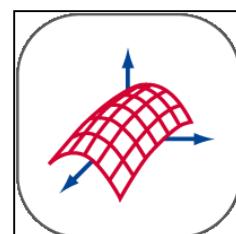
Data Management (e.g., test management, workflow management)



Instruments and simulation control



Test automation and evaluation



Road and maneuver definition



Visualization and animation



Unit under test



FIU

Load board

Real-time processing unit

Battery simulation, power supply

I/O hardware

Buses



Simulation model

Implementation software

ĎAKUJEM

janat@humusoft.cz