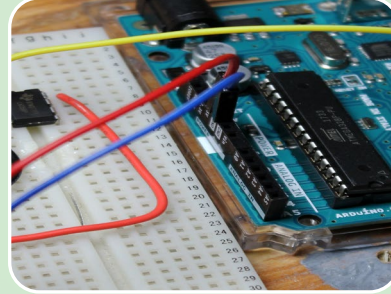
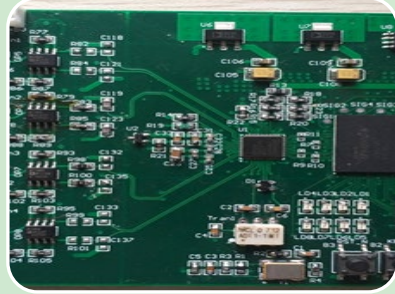


ΠΡΑΚΤΙΚΕΣ ΕΦΑΡΜΟΓΕΣ ΜΙΚΡΟΗΛΕΚΤΡΟΝΙΚΗΣ – ΠΡΟΟΠΤΙΚΕΣ ΠΡΟΒΛΗΜΑΤΑ

21 September 2022

Presentation by : George Georgiou

NOVATEX
SOLUTIONS.EU



Services
in the ICT
sector

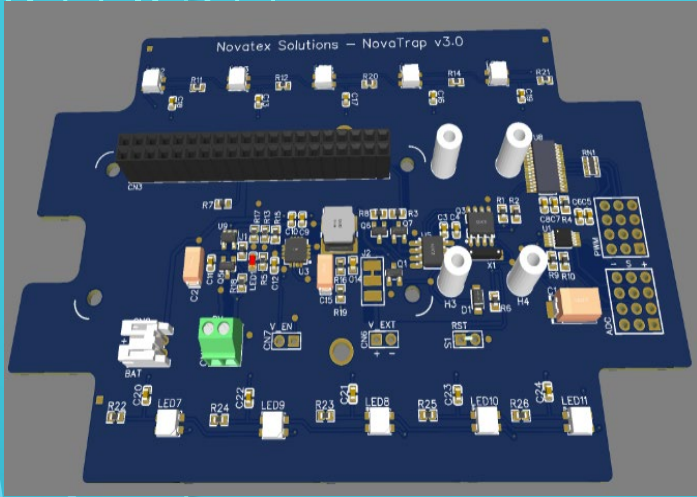
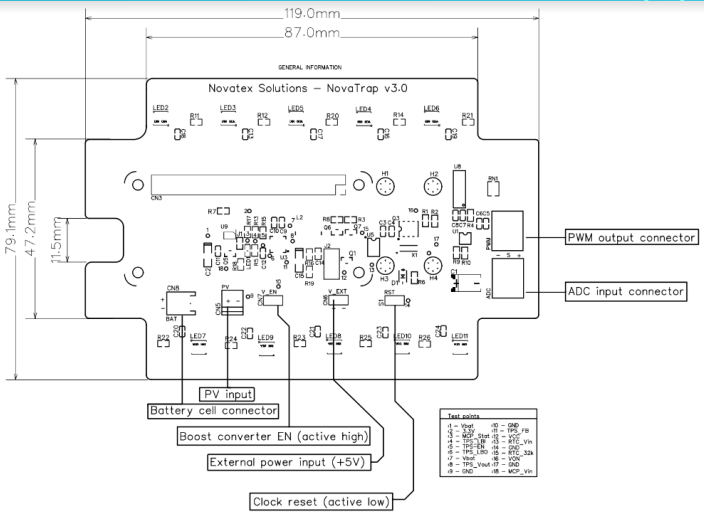
Data
acquisition
and
analysis
systems

Electronics
supplies

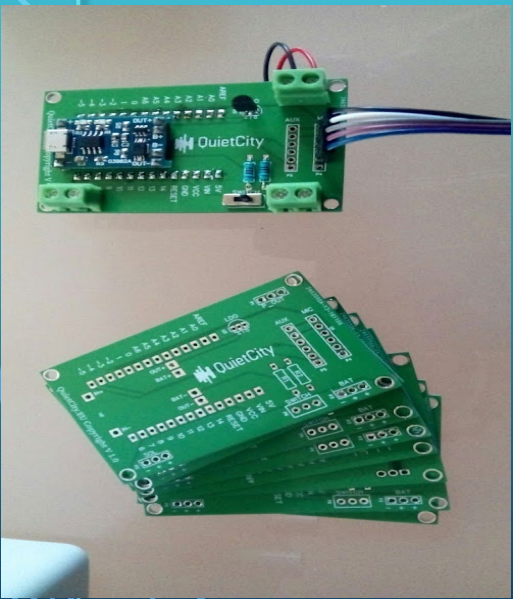
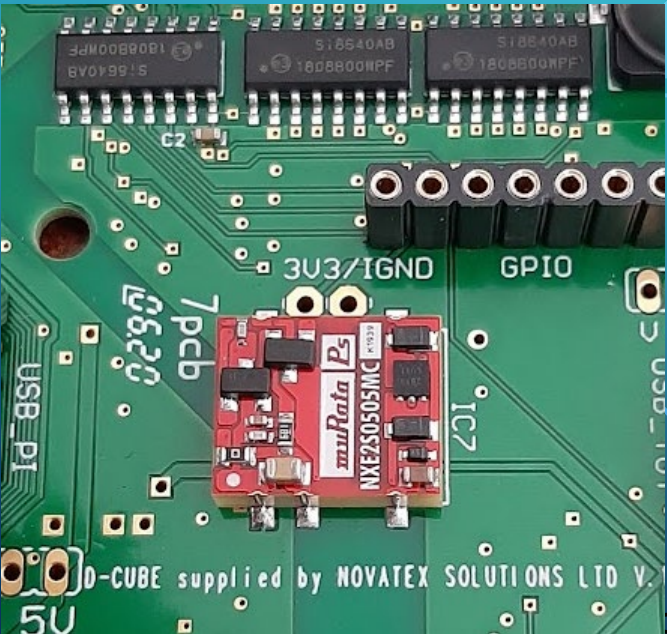
System
integration
and
related
solutions

Involved
in applied
research
projects
since
2006

ELECTRONICS PROTOTYPING LAB



Selling/Supporting customers and electronics projects through our dedicated electronics website www.robotaki.com



[★ SPECIALS](#) [LOGIN](#) [ACCOUNT](#) [CART](#) [CHECKOUT](#)

Search Keywords

[€ EURO](#) [ITEMS - 0.00€](#)

[f](#) [s](#)

[HOME](#) [BOARDS](#) [SHIELDS](#) [SENSORS](#) [COMPONENTS](#) [ELECTRONICS ETC](#) [KITS](#) [PC ACCESSORIES](#) [WEATHER](#) [SCIENTIFIC](#)

Home > Components

COMPONENTS

Mini Pushbutton Switch

Power - DC-DC etc boards

LED's

Cables

Wireless

Actuators

Sort By: [Date New > Old](#)

ALUMINUM HEATSINK COOLER 14 X 14 X 6MM ADHESIVE KIT FOR

LED BREAKOUT MODULE

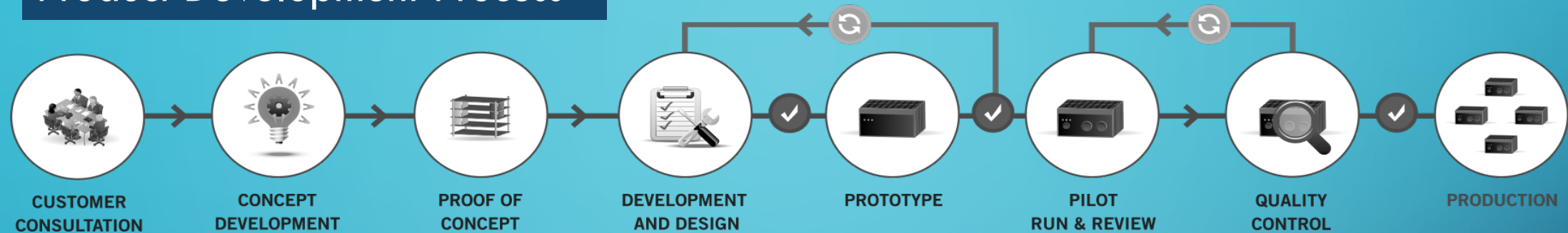
NEOPIXEL STICK - 8 X 5050 RGB LED WITH INTEGRATED DRIVERS

10 GRID DIGITAL SEGMENT LED LIGHT BAR 10 FLAT TUBE OF SUPER BRIGHT

CYPRUS LOCATION



Product Development Process



Customer Consultation/Research project

- Minimal local customers!
- Need to find customers from abroad

Concept Development

- Lack of experience in helping customers for concept development/Product Designers!

Proof of Concept

- Difficulties in getting parts/ proof of concept manufacturing

Development and design

- We can have people that can really excel in this! (Ability to use electronic design software/3d etc)
- How about experience in CE/CERTIFICATES/EMC/EMF requirements ?

Prototype

- Not easy to have access to prototyping facilities/remember that we might need 10+ prototypes that something that is mass produced!

Pilot Run and Review

- This can be done! We have adequate testing facilities for pilot but not for testing for EMC/EMF/CE etc!

Quality Control

- Only for small production lines! Otherwise need for automated tools and testing or low cost labor

Production

- Low volume / High Price? Low price/High Volume? High Volume/high price?

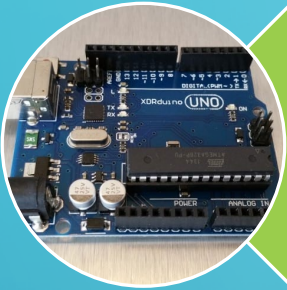
CYPRUS
LOCATION
/SIZE

Electronic parts and components

- Local providers stock only basic parts
- Long transportation times
- Increased costs
- No Local component manufacturers

High cost/time for imports

- PCB prototyping facilities? 2 layers? 5 layers
- Testing facilities
- Pick and Place machines?



Cheap product €10

- Increased price per product
- Relatively High ENERGY/Labor cost per product
- Increased transportation costs
- Need for higher sales volumes

Low price/low value
vs

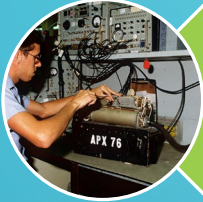
High price/high value



High Price/value product €10000

- Relatively lower Energy/Labor cost per product
- Need for Lower sales volumes

CERTIFICATION



Electronics Testing and Certification/Patents

- Need to have experience to design something certified
- Faster to patent something in USA/ELSEWARE
- Relatively High cost for CE/EMF/EMC testing

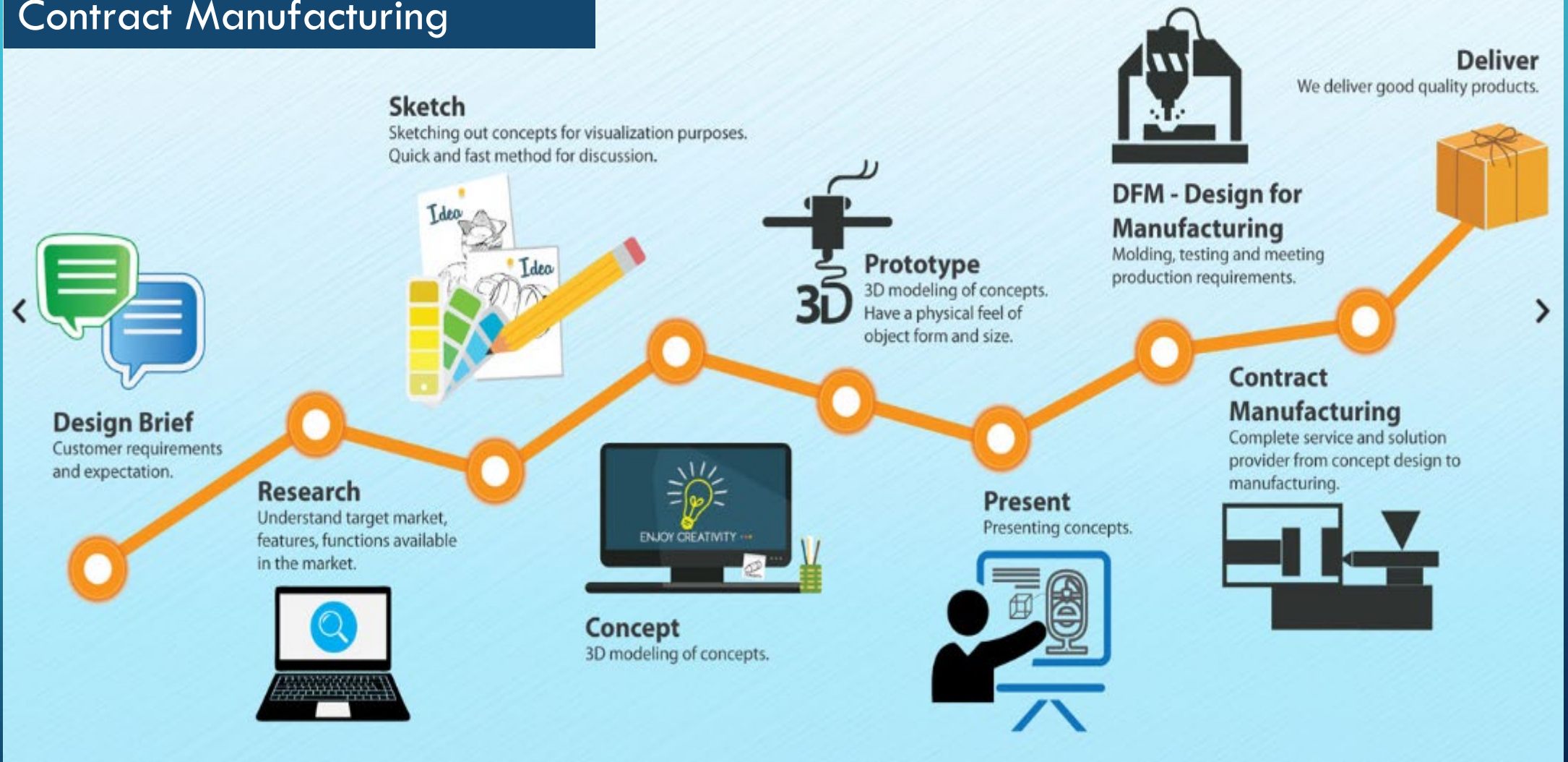
Combining HW/SW



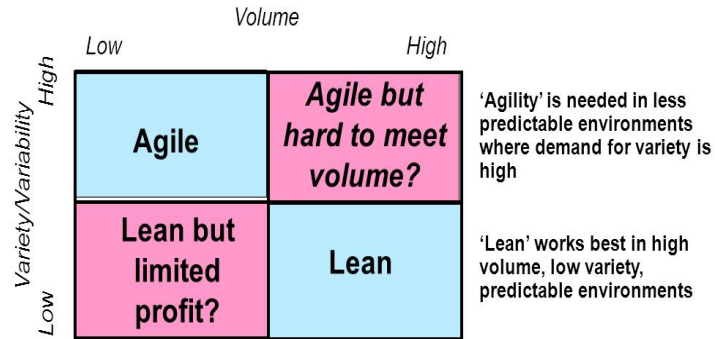
Hardware + Software – System integration

- Value of product = software, not actual hardware
- Data Storage
- Data analysis
- Data visualization
- AI /ML

Contract Manufacturing



Agile or Lean?



AGILE MANUFACTURING

- Agile manufacturing is actually **the ability for a company to adapt quickly** to the customer's demand, to the technology evolution and more generally, to react positively to the variation of the market



DIGITAL MANUFACTURING

Centered around a computer system.

The rapidity of the process **allows an iterative production.**

Example of 3D printing technology, you can both prototype and produce

NOVATEX
SOLUTIONS.EU

Certificate of Innovative
Enterprises



DEPUTY MINISTRY OF
RESEARCH, INNOVATION
AND DIGITAL POLICY
REPUBLIC OF CYPRUS

CARIE
CYPRUS ASSOCIATION OF RESEARCH
AND INNOVATION ENTERPRISES



THANK YOU!

AWARD



UNIVERSITY of NICOSIA



ECECT

www.ecect.eu

NON PROFIT ORGANISATION