

Smart Clothing Gamification to promote Energy-related Behaviours among Adolescents

WORTH Workshop

Budapest 28th June 2018



NUROGAMES



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SMARTLIFE AT A GLANCE

SmartLife - Smart Clothing Gamification to promote Energy-related Behaviours among Adolescents

- Project co-funded by the Horizon 2020 Programme of the European Commission under Grant Agreement No. 732348.
- Call: H2020-ICT-2016-2017
- Topic: ICT-24-2016
- Duration: 2 years
 - Start: January 2017
 - End: December 2018
- Budget: 1.264.512,50€
- www.smartlifeproject.eu
 - www.facebook.com/SmartLife.page.eu
 - www.twitter.com/SmartLife_eu



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AIM OF THE PROJECT

- The overall aim of the SmartLife project is to provide European adolescents with an individually tailored, evidence-based and engaging **gamification tool** to promote **physical activity**, fitness and reduce sedentary behaviour by using feedback from **smart textiles**, and thus contribute to the prevention of non-communicable diseases and conditions related to unhealthy lifestyles, such as overweight and obesity, diabetes type II and common mental disorders.

CONSORTIUM



KnowledgeBiz Consulting

is a Portuguese innovation and information systems consultancy company. Knowledgebiz is a spin-off company from Neobiz Consulting and with a close tie with Faculdade de Ciências e Tecnologia da UNL. The company's main mission is to deliver innovative information systems design and implementation.

www.knowledgebiz.pt



Nurogames GmbH

Cologne/Germany is an independent games development company, founded in early 2006 by practised experts of the games and media industry. Nurogames covers the entire chain of software and game project development – from the initial idea to final production / implementation

www.nurogames.com



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CONSORTIUM



Ghent University

is a large university in Belgium with 3 key tasks: research, education and service. Ghent University's 11 faculties are composed of more than 120 faculty departments. The Department of Movement and Sport Sciences of the university is ranked 9th worldwide in 2017 Shanghai ranking for sport-related science.

www.ugent.be



AITEX

is a private non-profit association that encompasses textile and related companies. Its ultimate aim is to make this sector more competitive. The Institute promotes modernization and the introduction of new and emerging technologies for the progress of the sector. One of the research lines is Smart Textiles, including thermal comfort, functional and intelligent textiles for home and automotive textiles, tele-medicine applied for the textile sector, electro active polymers, actuator and conductive yarns, integration in textile of standard devices applied in e-Health in order to control physiological parameters; respiration, heart rate, etc.

www.aitex.es



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**Activities in the real world:
mini-challenges and exploration missions**

EXPECTED RESULTS

Pilar I

Wearable sensor system

- The main result obtained from this Pillar will be the Smart textile sensor system, which will be adapted to young people in order to create an easy to wear and comfortable system attractive to adolescent people. The smart textile will monitor parameters such as heart rate, breathing and movement.

Pilar II

SmartLife exergame

- The main result will be the SmartLife exergame, including several options for exercises that provide users a choice and a possibility to tailor to user's needs. The exergame will be mobile, include a narrative and context information, and be based on user input to increase its motivational appeal.

Pilar III

Participatory, evidence-based development and social inclusion

- The main results will be the evidence-based and user-involved recommendations for design, including those on exercises with sufficient energy expenditure, gaming methods and features; the tailored advice and feedback; and evidence of feasibility, acceptability and superior effectiveness of the product compared to no activity or existing commercial exergames. The results from this pillar will aid in having an exergame that fits user needs and preferences, is tailored to their level of fitness and abilities thus preventing injuries, and is sufficiently engaging and able to meet health recommendations for adolescents.

Pilar IV

Game data analytics

- SmartLife will introduce the concept of game data analytics techniques, including data mining, visualization, and tools in order to augment the use of analytics to make business and design decisions as well as study human behaviour.

THE SMART SHIRT

TECHNICAL SHEET AITEX 2018

PROTOTYPE: SHORT SLEEVE PROTOTYPE
 NUMBER: 2
 PROJECT: SMART LIFE
 GROUP: TIC
 SIZE: M (MAN)

A BACK-FRONT NECK DISTANCE 3 CM
B NECK 1.5 CM
C TOTAL LENGTH 72 CM
D CHEST 96-101 CM
E SIDE PIECE (ARM) FRONTAL SPACE 5 CM
F WAIST 81-84 CM
G SIDE PIECE FRONTAL SPACE 10 CM
H HIPS 81-84 CM
I NECK 41-39 CM
J YOKE LENGTH 8.5 CM
K SENSOR POCKET WIDTH: 3.5CM LENGTH: 4.5CM
L SLEEVE LENGTH 23 CM
M SIDE PIECE (ARM) FRONTAL SPACE 5 CM
N SIDE PIECE FRONTAL SPACE 10 CM

FRONT BACK

TECHNICAL SHEET AITEX 2018

TECHNICAL SHEET AITEX 2018

PROTOTYPE: SHORT SLEEVE PROTOTYPE
 NUMBER: 4 (SEAMS)
 PROJECT: SMART LIFE
 GROUP: TIC
 SIZE: M (MAN)

A THREE-THREAD OVERLOCK STITCH (504) TWO NEEDLE THREADS RUN PARALLEL ON 4/3-STITCHES
B DOUBLE STITCH WITH TWIN NEEDLE NEEDLE SIZE: EU 80/90 - USA 12/14 SEAM SIZE / DISTANCE: 4.0 = 4.0 MM STITCH LENGTH 3MM AND STITCH WIDTH 0MM

FRONT BACK

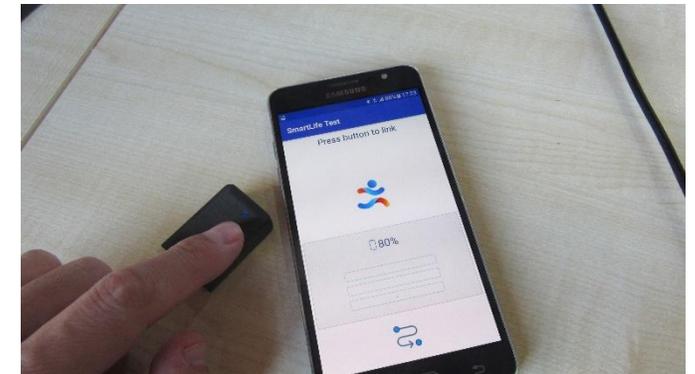
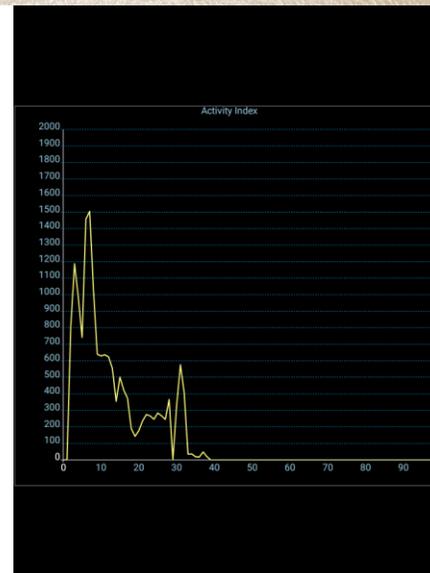
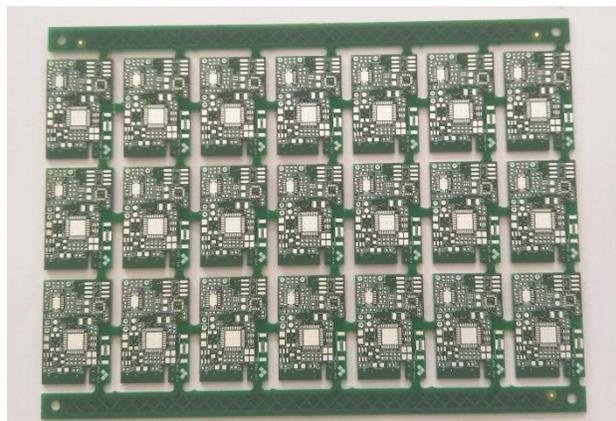
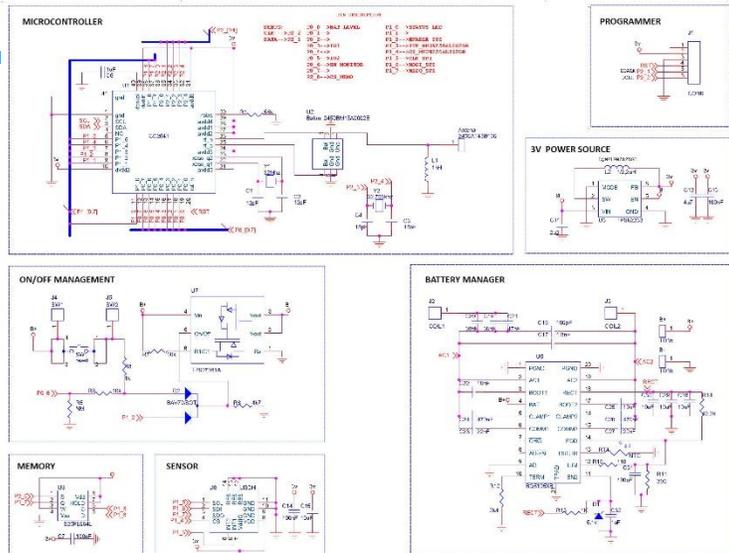
TECHNICAL SHEET AITEX 2018

CENTER FRONT FOLDED

CENTER BACK FOLDED

TECHNICAL SHEET AITEX 2018

SMART SHIRT



THE GAME



Thanks



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