

Last updated on the 14th April 2015.

Yosuke FURUSAWA

Personal Details

Date of Birth July 2, 1982.
Nationality Japan

Language Skills

Japanese Mother tongue
English Intermediate (reading / writing)

Summary

I've been participated in the launch of the production design and development of welfare and medical robots since I started working for the CYBERDYNE Inc.

Responsible for electrical system architecture, circuit, PCB and wire-harness drafting, designing and drawing. Concluding the FTA/ FMEA analysis and risk management. In addition, development Embedded Software of Bootstrap, Device Driver, Communication Protocols and Diagnosis systems.

I have the knowledge and experience whole development process such as designing, evaluation, specification and management. As a head of the electrical system team, schedule management, negotiation and coordination with the relevant departments of both internal and external of the project developers.

Core Competencies

- Research and development for welfare and medical robots.
- Development and evaluation of schematic, PCB and wire-harness.
- Development and evaluation of embedded software.
- Development and evaluation of batteries and chargers.
- Management and documentations.
- Acquired ISO13482/DIS, IEC60601, IEC62133 and ISO13485.

Employment History

Apr 2013 – **NEXTFOODS Inc.** – Automated Farming (Robotics and Ostriches).
(Takizawa, Japan) Ref : <http://www.nextfoods.jp/>
Position: CEO

Our goal is to create a giant-scale farm of 10,000 birds or more, is to provide a healthy meat with less fat. My aim is to create automated farming for ostriches, including a development of peripheral tools.

Products List :

- 1) Ostrich meat (leg, liver, heart, etc...)
- 2) Incubator
- 3) Weather Stick (network based environmental monitoring system)
- 4) Satellite (Farming webcam)
- 5) Farm-bot (Farming AGV)

Mar 2007 – Mar 2013 **CYBERDYNE Inc.** - The Robot Suit R&D, Manufacturer and Seller.
(Tsukuba, Japan) Ref.: <http://www.cyberdyne.jp/>
Position: Electronics Engineer and Assistant Manager.

What is “Robot Suit” ?

“Robot Suit” is a cyborg-type robot that can support human body and expand or improve physical capability.

When people try to move, nerve signals are sent from the brain to muscles via motoneurons, moving the musculoskeletal system as a consequence. At this moment, very weak bio signals can be detected on the surface of the skin. Robot suit can catch these signals through a sensor attached on the skin of the wearer’s. Based on the signals obtained, the power unit is controlled to move the joint in unison with the wearer’s muscle movement, enabling Robot Suit to support the wearer’s daily activities.

Common responsible for.:

- 1) Development specification and risk management.
- 2) Development and evaluation of schematic, PCB, wire-harness.
- 3) Development EMC controls.
- 4) Development and evaluation of batteries and chargers.
- 5) Man power planning and development planning for Electronics teams.
- 6) Communicating between internal and external department.

Development of Medical Robots for IEC60601 Standard (April 2009 – March 2013)

Position Electronics Engineer and Assistant Manager.

Achievement / Products:

- 1) Robot Suit HAL for Medical released (2013)
- 2) Acquired IEC60601, IEC62133, ISO13485 and some.

TUV Rheinland Issues EC certificate for Cyberdyne's Medical Robot Suit HAL

http://www.tuv.com/news/en/corporate/about_us_1/press/news_2/newscontent_cw_168279.html

Development of Welfare Robots for ISO13482/DIS Standard (April 2008 – March 2009)

Position Electronics Engineer and Assistant Manager

Achievement / Products:

- 1) Robot Suit HAL for Welfare released (2009)
- 2) Acquired ISO13482/DIS

Research and Development for Robots (March 2007 – March 2008)

Position Electronics Engineer and Researcher.

Achievement:

- 1) Bio signal sensing
- 2) Floor reaction force sensing
- 3) Electrical system architecture (Including risk management and single fault safety)
- 4) Internal reports as above

Education

Apr 2005 – Mar 2007 University of Tsukuba Graduate School of Systems and Information Engineering. Master of Engineering.

Apr 2001 – Mar 2005 University of Tsukuba College of Engineering Systems. Bachelor of Engineering.