Masaru OHKUBO

Date of birth:	(Born in 1990)
Nationality:	Japanese
Language:	Japanese - native, English - fluent
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■ Summary of my career

Aug, 2014 – Aug, 2015	Qibitech Inc. Robotics Startup	Part time, Electrical engineer
Dec, 2016 – Mar, 2017	CAMI & Co. Inc. IoT/DX Consulting firm	Contract employee, Assistant manager
Jan, 2016 – Dec, 2018	Freelance Hardware Engineer	Freelance Engineer
Jan, 2019 – Dec, 2020	CACH Inc. IoT Startup	Contract employee, Electrical engineer
Jan, 2021 – Feb, 2022	CACH Inc. IoT Startup	Full-time employee, Electrical engineer
Mar, 2022 – Present	KUKA Japan K.K. Industrial Robot	Full-time employee, Application engineer

Experienced in electronic development at start-up companies. Engaged in the development of in-house jigs, prototypes and IoT products. **Worked as a freelance engineer** for 3 years. Received orders for **the development of a prototype and small-lot manufacturing of IoT devices**. **Obtained subsidy and patent. Developing applications of industrial robot arm.**

■ Summary of my education

Apr, 2009 – Mar, 2013	University of Electro-Communications Department of electronic engineering	Bachelor of Engineering
Apr, 2013 – Mar, 2015	University of Electro-Communications Department of the Information Science	Master of Engineering
Apr, 2015 - Dec, 2020	University of Electro-Communications Department of the Information Science	Completed the doctoral course without obtaining a degree.
Dec, 2021	University of Electro-Communications	PhD(Eng.)

Gained a doctorate from the University of Electro-Communications. Engaged in the research on **physical devices that change its shape (Shape-Changing Interface/Shape Display)** at the Takuya NOJIMA Laboratory. **Experienced in the development of shape-changing interface applications**. Doctoral dissertation title is "The study of the scalability of collective shape display".

■ Achievement on my freelance business

・Supplementary budget, “Small business sustainability subsidy”, 2017.

・Japanese Patent, Tack&Co. Inc.,
Title:建造物内管理対象管理システム、建造物内管理対象管理方法、プログラム
Patent No. 6462924(P6462924), 11th January, 2019

■ Coding Experience

Language	Years of experience	Years of experience includes non-business
C/C++	**5**	**7**
Python	**5**	**7**
Java	**1**	**1**

■ Qualifications and License

2017	TOEIC 865
2017	IELTS Overall 6.0
2012	2nd class of the Technical Radio Operator for On-The-Ground Services
2011	Amateur First-Class Radio Operator

■ Career History

Qibitech Inc.

Role: Development assistance
Prototype manufacturing
Experienced Tools: Renesas RX621
Silicon Laboratories C8051
Detail: Developed a wearable IoT device prototype.
Responsible for coding the firmware and evaluation of the behavior of the prototype board. Also engaged in component mounting (SMD mounting etc.) on PCB boards besides wiring and assembly.

Cami&Co. Inc.

Role: Assistant manager
Teacher
Experienced Tools: General office tools(Microsoft Word/PowerPoint/Excel etc.)
Detail: Engaged in launching IoT / robot education business for children. In charge of manager work and lecturer work. Held the first seminar / class of the business.

Freelance Engineer

Role:	Representative of Solo proprietorship
Experienced	Microcontrollers and prototyping boards(Mbed, Arduino etc)
Tools:	Autodesk Eagle CAD
	Autodesk Fusion 360
Detail:	Received orders for hardware prototyping and small lot manufacturing for IoT. Experienced in designing electrical circuit and manufacturing PCBs, 3D printing for cases and jigs, Laser cutting etc. My personal business was adopted subsidy. Obtained a Japanese patent with a client.

CACH inc.

Role:	Electrical engineer
Experienced	System Workbench for STM32
Tools:	STM32 Cube
	LTSpice
	Autodesk Eagle CAD
	Autodesk Fusion 360
Detail:	Engaged in the development of in-house jigs, products and advanced development. Experienced coding and manufacturing IoT products and jigs. Executed prototyping PCBs, firmware development, evaluation testing and mass production assembly etc.

■ Additional Information

・Participation in art / creative production projects

Jan, 2015	Fujiyama Electric	**Joined as an assistant engineer to manufacture 50's Blues guitar amplifier and effect pedals.**
Aug, 2018	Maker Fair Tokyo 2018	**Managed to exhibit research demos** with lab students.
Dec, 2020	YORUNOYO 2020, Yokohama	**Participated in the system development of illumination events** in Yokohama City. **Engaged in sensor system development.**
Mar, 2021	Miki Hirase「Translucent」	**Joined as a technical support for an artist.** Developed a video synchronous playback system.

・List of the presented academic papers

[International]

Masaru Ohkubo, Shuhei Umezu, and Takuya Nojima. 2016. Come alive! Augmented Mobile Interaction with Smart Hair. In Proceedings of the 7th Augmented Human International Conference 2016 (AH '16). Association for Computing Machinery, New York, NY, USA, Article 32, 1–4. DOI:https://doi.org/10.1145/2875194.2875241

Mage Xue, **Masaru Ohkubo**, Miki Yamamura, Hiroko Uchiyama, Takuya Nojima, and Yael Friedman. 2016. Development of a Toolkit for Creating Kinetic Garments Based on Smart Hair Technology. In Proceedings of the 2016 Symposium on Spatial User Interaction (SUI '16). Association for Computing Machinery, New York, NY, USA, 177. DOI:https://doi.org/10.1145/2983310.2989182

Masaru OHKUBO, Mage XUE, Miki YAMAMURA, Junichi KANEBAKO, Lisako ISHIGAMI, Syo YAMAGUCHI, Takuya NOJIMA, Hiroko UCHIYAMA and Naoko YAMAZAKI, "Design Proposal of Space Clothes that Supports Lives in the Future Space Tourism Era", in CIMTEC 2016, L-4:L05, 2016.

M. Ohkubo, M. Xue, M. Yamamura, J. Kanebako, L. Ishigami, S. Yamaguchi, T. Nojima, H. Uchiyama, N. Yamazaki, "Design Proposal of Space Clothes that Supports Lives in the Future Space Tourism Era", Advances in Science and Technology, Vol. 100, pp. 59-63, 2017.(author version PDF)

Masaru Ohkubo and Takuya Nojima. 2018. SmartFiber: Reconfigurable Shape Changing Interface. In Proceedings of the 9th Augmented Human International Conference (AH '18). Association for Computing Machinery, New York, NY, USA, Article 42, 1–3. DOI:https://doi.org/10.1145/3174910.3174949

Takuto Hayashi, **Masaru Ohkubo**, Sho Sakurai, Koichi Hirota, and Takuya Nojima. 2019. Towards making kinetic garments based on conductive fabric and smart hair. In Proceedings of the 23rd International Symposium on Wearable Computers (ISWC '19). Association for Computing Machinery, New York, NY, USA, 89–90. DOI:https://doi.org/10.1145/3341163.3347733

[Domestic] *underlined my name

平居あづさ, 梅津周平, **大久保 賢**, 野嶋琢也：女子児童を対象とした初期技術教育のための基本ツール開発, 日本感性工学会かわいい人工物研究部会 5 周年記念シンポジウム資料集, pp.29-32, 2015.

梅津 周平, **大久保 賢**, 野嶋 琢也：Hairlytop Interface の動作シミュレータの開発, 第 20 回日本バーチャルリアリティ学会大会論文集, pp.64-67, 2015.

大久保賢, 梅津周平, 薛馬各, 平居あづさ, 野嶋 琢也. Kinetic 手芸の提案, 第 23 回インタ

ラクティブシステムとソフトウェアに関するワークショップ論文,集 2-R15, 2015.

大久保 賢、佐藤 俊樹、野嶋 琢也： 映像表示機能を有するボールの提案，第 21 回日本バーチャルリアリティ学会大会予稿集, 31C-03，2016.

岸田聖生, **大久保賢**, 櫻井翔, 広田光一, 野嶋 琢也: Smart Hair の運動性能保証システムの提案と評価. 第 23 回日本バーチャルリアリティ学会大会論文集, Vol.23, 34C-1, 2018.

S. Kishida, **M. Ohkubo**, and T. Nojima, “毛状インタ ーフェイスの運動制御システムの提案と評価,” 第 20 回ハプティクス研究会, no. PI-18-024, pp. 1–5, 2018.

林卓人, **大久保賢**, 櫻井翔, 広田光一, 野嶋 琢也: スマートテキスタイルを用いた SmartHair のアクセサリ開発. 第 23 回日本バーチャルリアリティ学会大会論文集, Vol.23, 34E-4. 第 23 回日本バーチャルリアリティ学会大会, 2018

村上莉沙，野嶋琢也，**大久保賢**, “NekoHigeMask:マスク着用時の会話補助デバイス”, インタラクション予稿集, 3B29, 2018

村上莉沙, **大久保賢**, 櫻井翔, 広田光一, 野嶋琢也: Moving Flower Arrangement: 動く生け花作品の制作とそのデザイン環境開発. エンタテインメントコンピューティングシンポジウム 2018 論文集, pp264-266.

End.