

Dear All,

Company Name: Matsuya R&D Corporation Represented by: President & CEO, Hidetaka Goto (TSE MOTHERS code: 7317)

<u>Matsuya R&D and OMRON Begin Joint-Development of a 3D Sewing Robot</u> that Makes Sewing for Soft, Stretchable Fabrics Possible

Matsuya R&D Corporation (referred to as "MATSUYA R&D" below) and OMRON Corporation (HQ: Shimogyo-Ku, Kyoto. President and CEO: Yoshihito Yamada, referred to as "OMRON" below) have begun their greatly anticipated joint-development of a 3D sewing robot that automates sewing for previously impossible stretchable, soft fabrics. Through this collaboration, we aim to solve labor shortages present in sewing factories and make the rapid production of diverse ranges of products, singleitem lots and short lead times for processing, a reality for all.

The "5th Science and Technology Basic Plan", issued by the Japanese Government in 2016, describes the societal structure that Japan should strive to become and describes their goals from moving from the world's current status as a Society 4.0 ("Information Society") to what they call "Society 5.0". The plan describes the world's current Society 4.0 structure as having the following issues; "The current lack of shared information makes cross disciplinary collaborations difficult", "the limitations of human ability make finding necessary information difficult among vast amount of available information", "old-age and disabilities limit the scope of possible activities and labor", and "issues stemming from aging/declining populations and urban migration cannot be adequately met". These issues are present in the sewing world where issues stemming from dealing with labor shortages, offshore production, knowledge/skill transfer leave the market unable to bear the weight of demand.

MATSUYA R&D tackles these issues head on and brings us towards Society 5.0 through our leadingedge Automatic Sewing Machines and sewing lines that are driven by AI technology. Among this, we are partnering with OMRON to prototype and validate a system that can reliably sew soft, stretchable fabrics. This technology combines the might of both MATSUYA R&D's expertise and experience in developing sewing machinery with OMRON's visual recognition/image processing technology and robotic control systems; creating a revolutionary 3D Sewing Robot. This machine picks up soft, stretchable fabrics using a manipulator (robotic hand) then sews while reacting in real-time to the stiches' seams through feedback provided by its image processing system. With this development, we aim to make 3D sewing at all angles, possible.

Development of this technology grants us the ability to replace sewing processes that required highly experienced and skilled laborers with our robots; a suitable solution to current labor shortages. Additionally, by implementing our technology in smart factories, businesses that currently cut cost by offshoring labor-intensive production can now bring production back to their home countries.

From our development of Sewing Robotics and projects yet to come, we strive to solve labor shortages in factories, reduce labor costs and make distance-production operated by teleworkers possible for people of all ages and backgrounds. Through our AI technology, we hope to bring the skills of artisans to the masses and support the development of young, aspiring workers while digitalizing the creativity and skills of workers for our technology. Through this, we strive to make machinery that can produce large varieties of products and/or single item lots in small lead time.

Here at MATSUYA R&D, from years of cultivating trust from our clientele, we expand our company by answer our clientele's every need from our proven technical finesse and our "Made in Japan "quality.

Current Manual 3D sewing Processes:



Our Revolutionary 3D Sewing Process driven by our robot:



*The image above is a proof of concept that is currently in development Sewing via a robot with an onboard visual recognition system

<Matsuya R&D Corporation>

The Matsuya R&D Corporation is your Sewing Automation partner; we are a globally expanding company that develops sewing robots and automatic sewing systems to automate the sewing industry. Additionally, we specialize in technology for Medical Devices in the Medical Healthcare sector where we produce Cuffs for sphygmomanometers (blood pressure gauges), along with Safety Systems in the automotive sector where we produce car-seats and airbags for leading companies. Matsuya R&D was founded in Ono, Fukui prefecture in 1982 and has since been expanding globally with its production based in Vietnam. For more information, please refer to our website at https://www.matsuyard.co.jp/en/.

<OMRON Corporation>

OMRON Corporation is a global leader in the field of automation based on its core technology of "Sensing & Control + Think". OMRON's business fields cover a broad spectrum, ranging from industrial automation and electronic components to social systems, healthcare, and environmental solutions. Established in 1933, OMRON has about 30,000 employees worldwide, working to provide products and services in around 120 countries and regions. For more information, visit OMRON's website: https://www.omron.com/global/en/

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