ACUBOTS—ACUPUNCTURE ROBOT BASED ON DIGITAL MERIDIANS

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With the help of the cloud platform to realize the leasing use of acupuncture robots, namely through the remote control of highly standardized acupuncture treatment operation on robots, enabling more users to lease rather than purchase enjoy the homogeneity of the TCM medical service. Based on traditional meridian, introducing chaos theory and fractal geometry; generating digital meridian as the theoretical basis of robot automatic point positioning; Research into quantitative relationship between the needle speed and patients’ pain; develop features of fast and painless needle inserting in acupuncture robots; Build acupoint-symptom complex networks; provides mathematical model for TCM AI simulation; design interactive wireless control platform AcuCloud; endow robots dual roles of scientific research and clinic; promote the establishment of quantitative research and international standards of accurate acupuncture; inherit traditional Chinese medicine based on science and technology. We creatively developed automatic acupoint positioning and painless needle inserting technology and conduct replication experiments on human subjects with many general robot arm and has been successful indicating that the existing hardware technology is mature. With the aid of industrial robot and team self-developed control technology and software platform, the self-help treatment as the core of acupuncture robot has achieved high business feasibility.

Biography
Tiancheng Xu is an Innovator and Founder of Acubots which invents an acupuncture robot which is recognized by Medical Robotics Society, Enactus, Microsoft, Takeda, Renesas and entered top 36 of Lee Kuan Yew Global Business Plan Competition. He has got excellent volunteer for United Nations “MY World” Actions, 1st prize of NECCS and 110 more awards in college. He published 26 academic papers and is also a Medical Science Writer with more than 3,000,000 hits. He was Protocol Supervisor for the second Asian Youth Games and now a member of the China Young Leaders Exchange Network.

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