

國立台灣大學技術行銷表

台大案號: _____ (由產學組填寫)

產學合作中心聯絡人:

電話:

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產品/技術名稱	可控制剛性之安全機械人手臂
發明人/單位	羅仁權/國立臺灣大學電機學系暨研究所終身特聘教授 林進福/國立臺灣大學電機學系暨研究所
產品/技術說明	此篇專利中所提出之"可控制剛性之安全機械人手臂"是一套全新機構設計，可線上控制機械人手臂關節之剛性，讓機械人手臂具備安全之功能，以滿足可與人安全共處運作之目的；與其他同樣以安全為目的之機構設計相比較，本機構具有體積小、零件少、成本低、精度高、高可靠度、高安全性、可控制剛性、同時具備扭力輸出限制功能。 "可控制剛性之安全機械人手臂"主要由三大主要關鍵功能機構組成，包括： 1、圓盤式安全機械人手臂關節機構，2、圓盤式關節剛性調整機構，3、機械式正反轉扭力輸出限制機構...等。
應用範圍	保全機器人、居家照顧機器人、軍用機器人、娛樂機器人...等。
產品/技術優勢	1. 可線上控制機械人手臂關節之剛性，讓機械人手臂具備安全之功能，以滿足可與人安全共處運作之目的 2. 本機構具有體積小、零件少、成本低、精度高、高可靠度、高安全性、可控制剛性、同時具備扭力輸出限制功能。
市場潛力	可使機器人產品融入人類生活，幫助人類執行居家照顧、老人照護、家事勞務...等工作。任何居家服務機器人有加裝平臂，基本上均須有此安全機構及機制。
產品/技術 智財權保護方式	申請"可控制剛性之安全機械人手臂"之機構創新設計之專利，以保護相關智慧財產權。

Marketing Abstract of NTU's Invention Disclosure

NTU's docket no: _____ (由技轉室填寫)

TTO contact :

Tel :

e-mail :

Title	Controllable Stiffness Safe Robot Arm
Inventor (s)	R. C. Luo/ Professor, Department of Electrical Engineering, National Taiwan University C. F. Lin/ Researcher, Department of Electrical Engineering, National Taiwan University
Brief Description	"Controllable Stiffness Safe Robot Arm" is a set of new mechanical design for soft safe robot arm. It is capable of online control for variable stiffness of robot arm. The features include smaller size, less components, lower cost, high precision, high reliability, high safety and controllable stiffness.
Fields of Application	Security Robot, Home Care Robot, Military Robot, Entertainment Robot.
Advantages	1. It is a set of new mechanical design for soft safe robot arm. 2. It is capable of online control for variable stiffness of robot arm, which can coexist with human safety. 3. The features include smaller size, less components, lower cost, high precision, high reliability, high safety and controllable stiffness.
Market Potential	Service Robots are autonomous intelligent robots that assist humans, service equipment and perform other autonomous functions such as: Security Robot, Home Care Robot, Military Robot, Entertainment Robot and etc. Those service robots involve arms will need such a safe mechanism to ensure the safe operation when it in coexist and co-work with human.
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