

콘솔표시기 무선통신기술 적용에 관한 연구

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A Study on the Application of Wireless Communication Technology for Console Indicators

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Abstract

Then repeat the test to maintain the degree of magnetic force is a permanent magnet 2,000 Gauss . Repeat the test to maintain the degree of the plane perpendicular distance 13 mm.

1. Introduction

The amount of current income that surpasses the performance of foreign products and develop products. Development direction, as shown in the following figure: IEEE / ASME TRANSACTIONS ON MECHATRONICS, VOL. 15, NO. 1, FEBRUARY 2010 with reference to the set.

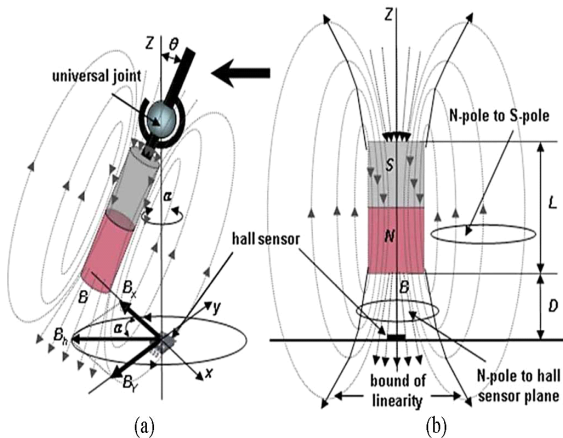


Fig. 1. Aims at the development of the mechanical structure of the selected console display

2. Method Development

1) Console operating indicators

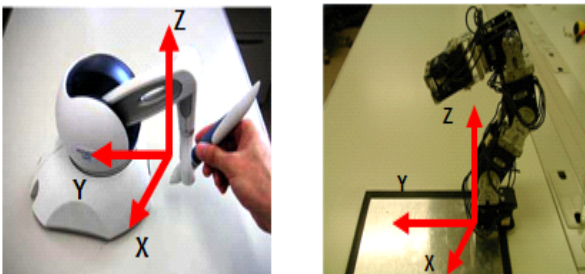


Fig. 2. Shows a manipulator using a joystick remote control

2) Check the position data wireless communications

The Bluetooth module has two serial interfaces to be applied.

2. Results and Discussion

A.1.1. Parani-ESD100/110

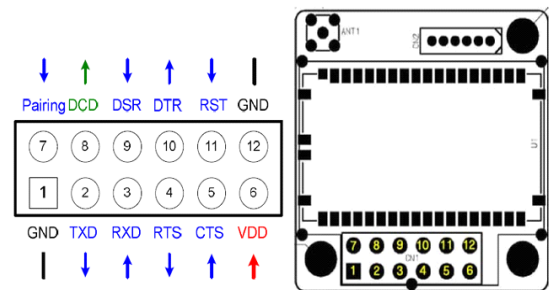


그림 A-1 Parani-ESD100/110의 핀 사양

표 A-1. Parani-ESD100/110의 핀 사양

Pin #	Signal	Direction	Description	Signal Level
1	GND	-	Power Ground	Ground
2	TxD	Output	UART Data Output	TTL
3	RxD	Input	UART Data Input	TTL
4	RTS	Output	UART Ready to Send	TTL
5	CTS	Input	UART Clear to Send	TTL
6	VDD	Input	DC Input (3.0-3.3V)	Power
7	Pairing	Input	Pairing Input (Active Low)	TTL
8	DCD	Output	Bluetooth Connect Detect (Active Low)	TTL
9	DSR	Input	Data Set Ready	TTL
10	DTR	Output	Data Terminal Ready	TTL
11	RST	Input	Reset (Active Low)	TTL
12	GND	-	Power Ground	Ground

Reference

- [1] C. R. Wagner and D. P. Perrin, "Force feedback in a three-dimension ultrasound guided surgical task," in Proc. 14th Symp. Haptic Interfaces Virtual Environ. Teleoperator Syst., 2006, pp. 43-48.
- [2] U. Tumerdem and K. Ohnishi, "Haptic consensus in bilateral teleoperation," in Proc. 4th IEEE Int. Conf. echatronics (ICM 2007), May, pp. 1-6.