TreasureHunter

AR (Augmented Reality) Treasure Hunting Game

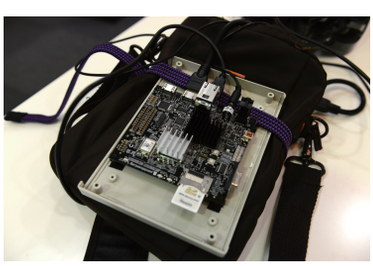
Controlling a real robot to get virtual treasures by brain waves.

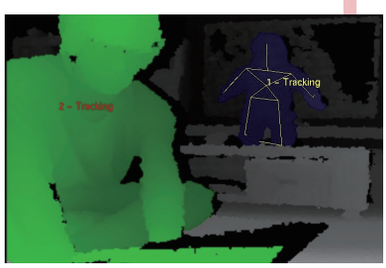
http://www.siprop.org/en/2.0/index.php?product%2FTreasureHuntingRobot

What is demonstrated

A product world is trying to change focusing on "Content-Centric". Like a Kindle which is designed by "E-Book Centric". Then, it is necessary to design our products by “Content-Centric” .
For that purpose, it is necessary to perform a trial production and a products design quickly flexibly.

Therefore we created one robot based on the soul of "DIwO(Do It with Others)" used as basic concepts, such as Make: (http://makezine.com/) in order to realize it.
It is created by combining various products used as SoC which
Pandaboard (http://pandaboard.org/)
Origenboard(http://www.origenboard.org/)





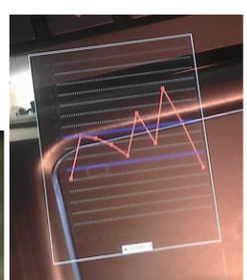
Key technologies

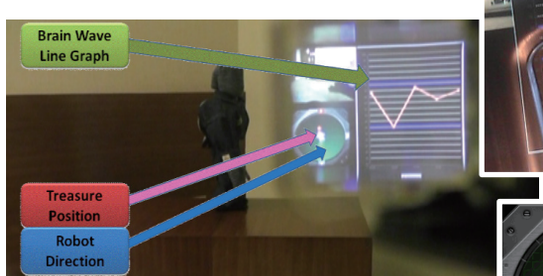
- Tracking a robot
  Detecting a robot by a bone skelton
  Calculating direction and position of a robot by a depth camera

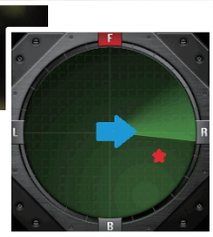
- Sencing brain waves
  Sencing brain waves and translate to commands

How to control

-- Keep 2 plots / 5 plots in same area.
  Upper area: Turn left
  Middle area: Go toward
  Lower area: Turn right







Radar view and wave graph are shown on your sight.

Implementation

Hardware	Base Computer	Panda board
	Brain Wave Sensor	MindWave (NeuroSky)
	Depth Sensor	Xtion pro live (ASUS)
	Display	AiRscoter (Brother Industries)
	Walking Robot	KHR-3WL (Kondo science)
Software	Ubuntu & Android	Linaro 11.11
	Depth Sensor	OpenNI
	Bone Skelton Tracker	NITE for ARM
	UI Framework	openFrameworks
		Android

SIProp Project
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