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## Researchers develop new GPS system for container port cranes

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A new guidance system to steer giant port cranes past stationary containers has been developed by researchers of the University of New Brunswick in Fredericton.

Donghyun Kim and Richard Langley, contracted by Korea's Seoho Electric Company, have created the system in an attempt to simplify the steering process, which is currently based on painted lines and side mounted cameras. The new Global Positioning System (GPS) controls the crane's actions by digitally mapping the warehouse or space it operates in and is claimed to offer accuracy to within a few centremetres.

A GPS base station is located at the port and a pair of GPS receivers on the crane. The software is then used to determine the crane's location through a combination of the base and crane receivers and GPS satellites.

Field-tested in container ports in Kwnagyang, Korea, the equipment is the first in a new generation of GPS based guidance systems, currently being researched. Future systems are expected to include the ability to send GPS data through the internet, allowing base stations and remote receivers to operate at any distance.

By Ben Townley