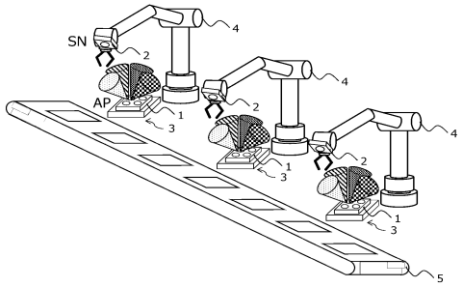
Tohoku Univ. Technology

Communication circuit system

Avoid inter-system interference and improve space usage efficiency



1. Access point
2. Sensor Node
3. Base part
4. Machine tool
5. Belt conveyor

Overview

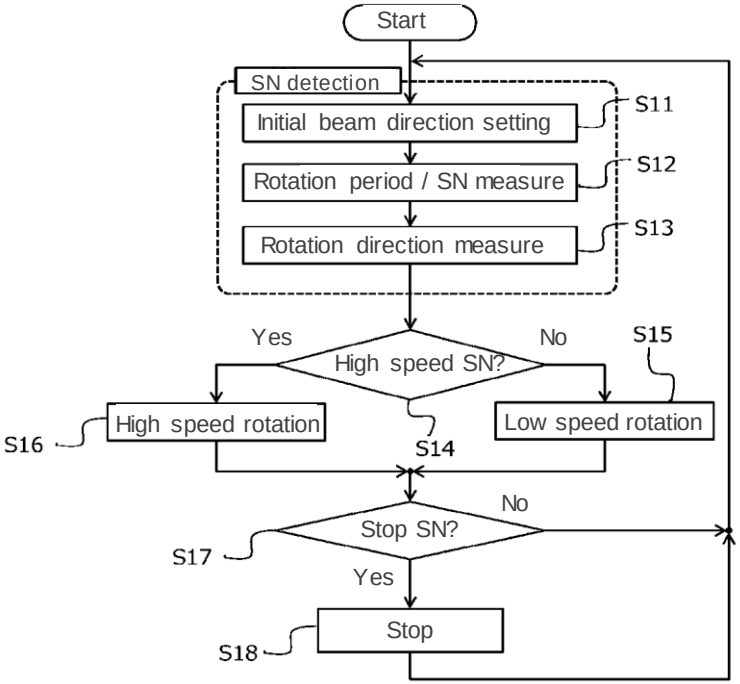
In a factory for example, the end of a wired network is an access point such as a wireless LAN. The connection to the object beyond that point is made by a wireless communication system. Therefore, the wireless IoT communication is important for network connection to object. Wireless IoT communication often uses wireless LAN, Bluetooth, etc., which are unlicensed band, causing interference between systems, resulting in throughput reduction or real-time performance lack.

This invention is able to suppress inter-system interference using adjacent same frequency bands and to improve space usage efficiency. This communication circuit is equipped with an access point for wireless communication with a plurality of sensor nodes. This invention measures the rotation period and direction of sensor nodes, controls the direction of the beam sent out from each access point, and communicates to sensor nodes available in the communication range. It suppresses inter-system interference using adjacent same frequency bands and improves space usage efficiency.

Product Application

- Wireless communication system
- Factory that uses multiple communication circuits

Beam forming to sensor nodes available in the communication range



IP Data

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