

## **Quorum Sensing Definition**

Written by Robert Bectel

Wednesday, 21 January 2009 03:09 - Last Updated Wednesday, 21 January 2009 03:45

---

**Quorum sensing is a type of decision-making process used by decentralized groups to coordinate behavior. Many species of bacteria use quorum sensing to coordinate their gene expression according to the local density of their population. Similarly, some social insects use quorum sensing to make collective decisions about where to nest. In addition to its function in biological systems, quorum sensing has several useful applications for computing and robotics.**

**Quorum sensing can function as a decision-making process in any decentralized system, as long as individual components have (a) a means of assessing the number of other components they interact with and (b) a standard response once a threshold number of components is detected.**