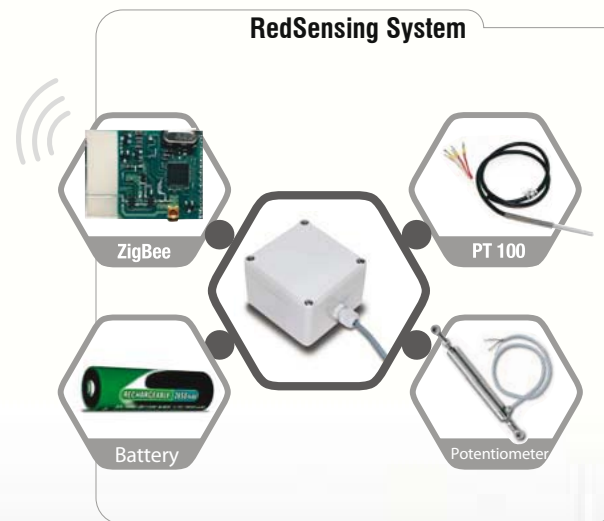


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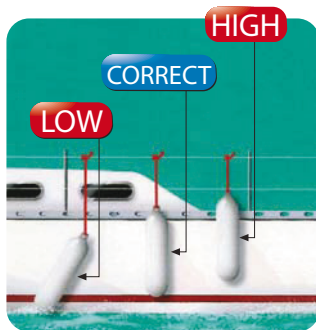
## Boat Watch

*The project addresses marinas or harbors that are mainly used to “park” boats in low season. These small harbors are called resident marinas*



## The need

In these marinas, boats are often left unattended by their owners for long periods of time. Often charter companies and sailing schools need to manage large fleets. In the event of strong storms, there is a high risk of accidents with considerable damages. Often even if collisions are minor, damages are material because of the ongoing repetition of events, such as in case of lateral knocks (rolling). Fenders placed to prevent direct collisions between the sides of two boats may lose their position in case of strong pressure. An “event-guided” monitoring system would provide significant added value to the services rendered by the marina operator.



Position of the fender

## The solution

To meet this need TERTIUM Technology, working with the Pisa-based Institute of Information Science and Technology of CNR, Italy's National Research Council, developed a solution with the RedSensing platform based on ULPW (Ultra Low Power Wireless) technology. The system includes positioning a three-axis acceleration sensor on each boat. After accurate on-the-field calibration, the sensor is capable of detecting and discriminating the type of collision and magnitude. For instance, it can detect whether a fender correctly mitigates the lateral knocks between two boats or between the boat and the berthing dock. If this is not the case, the RedSensing radio system sends an alarm signal through its radio interface to the GSM or internet information forwarding system.

