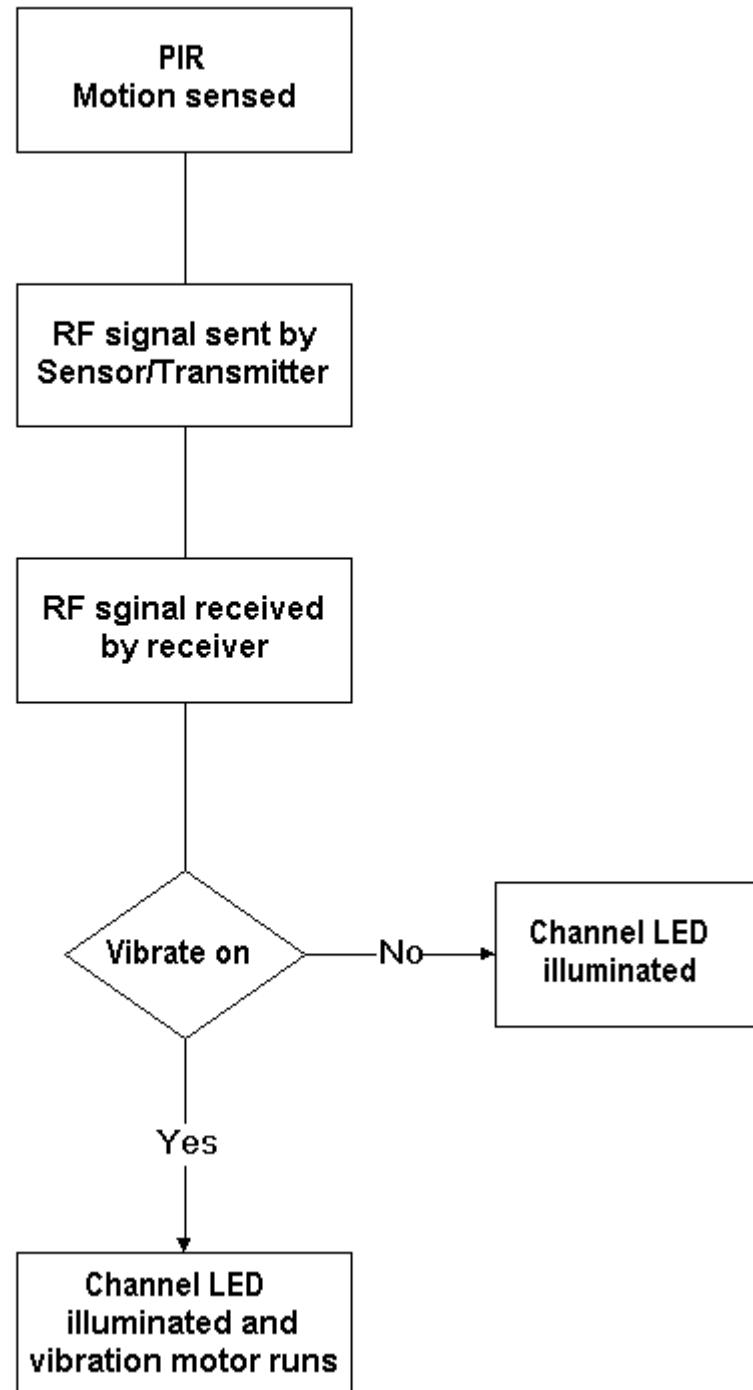


Trail-Scout Functional Block Diagram



Operational Description

The TrailScout sensor system consists of a wireless motion sensor and a wireless hand held receiver. Each sensor unit contains a PIR (pyroelectric infrared sensor) and a wireless transmitter that operates in the 418 MHz band. Infrared radiation exists in the electromagnetic spectrum at a wavelength that is longer than visible light. It cannot be seen, but it can be detected by the PIR sensor. When a human or animal enters the sensor's coverage area, it triggers the sensor. The transmitter in the sensor unit is then activated and it transmits a signal to the receiver unit. When the receiver unit receives the signal it will illuminate a red LED for approximately 18 seconds, corresponding to the channel that the signal was received on. If the vibrator motor feature is turned on the receiver will also activate the vibrator motor for 4-5 seconds. The LED and vibrator motor will then turn off and the receiver unit will wait for the next transmission from a sensor unit. The receiver can monitor up to 4 of the sensor units by utilizing different channels.