Summary of the security attacks targeting the sensing domain

Attack	Target OSI Layer	Vulnerability Reason	Security Violation	Countermeasures
Jamming Attack	- Physical - Data Link	Shared wireless channel	Availability	- Frequency Hopping - Spread Spectrum - Directional Antennas - Jamming Detection Techniques
Vampire Attack	- Data Link -Network	Limited battery lifetime	- Availability - Freshness	- Rate limitation - Drop packets with a source route that contains a loop - Monitor whether or not the forwarded packets are making progress towards their destination
Selective-Forwarding Attack	Network	Limited transmission capability	- Availability	- Increase transmission range - Path Redundancy - Choose certain intermediate objects as checkpoints to acknowledge received packets
Sinkhole Attack	Network	Limited transmission capability	-Confidentiality - Availability	- Analyze the collected routing information from multiple objects