**Ultrasonic Sensor Pre-Quiz Answer Key**

1. **How do humans sense distance?**

**Humans estimate distance using their eyes, which is usually not a very accurate method.**

1. **How do bats sense distance?**

**Bats send distance using sound. They emit sound waves and receive back reflected waves. The time it takes to receive the waves back provides them with a very good estimate of the distance.**

**This is exactly how the ultrasonic sensor estimates distance.**

1. **Provide an example “stimulus-sensor-coordinator-effector-response” framework using the bat?**

***For bats*: calls made by mouth > ears hear reflected waves > brain decides what to do > wing muscles move > flight path changed, as needed**

**Bats use this same method to catch mosquitoes, too!**