



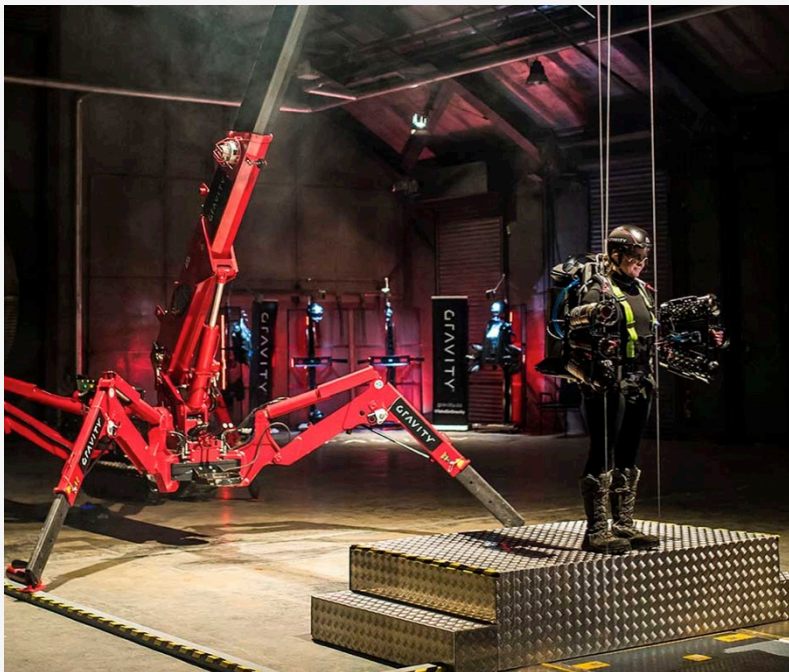
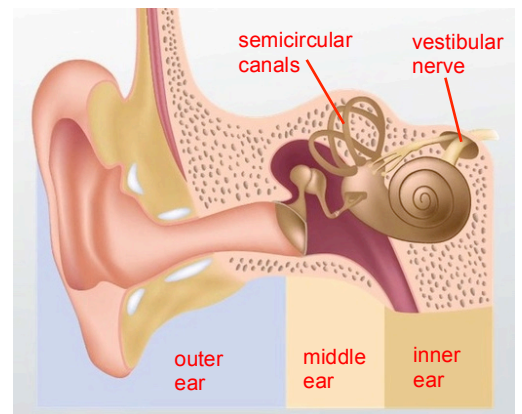
Your balance system helps you stand, walk, run, and move without falling. Your eyes, **inner ear**, and muscles and joints send signals to your brain. These signals help you stay balanced. This system of signals is your **vestibular system**.

Flying the Gravity Jet Suit relies on the pilot's ability to balance and demands a complex interaction of different parts of the brain, inner ear, muscles, joints and visual system.



The Inner Ear

There are three loops in your **inner ear**, called **semicircular canals**. One canal senses up-and-down movement. Another canal senses side-to-side movement. The third canal senses tilting movements. Each canal has **hair cells** and **fluid** inside. When you move, the fluid and hair cells move. The hair cells send messages to your brain through the **vestibular nerve**. Your brain uses this information to help you know where you are in space. You use this information, along with what you see and feel, to keep your balance. Inner ear trouble can lead to balance problems.



Gravity Jet Suit flying training takes time for the pilot's vestibular system to learn the new muscle movements required to balance. With enough practice, flying a Gravity Jet Suit becomes as natural as walking and running.



Some text sourced from: www.asha.org; Ear diagram: study.com

