

ANATOMY O

Your body has lots of different parts—each does a different job, and each is important. Robots are full of important parts too.

Pleo is a robot pet dinosaur, modeled on a baby camarasaurus. What's inside Pleo? How does he work?

Let's take off his skin and find out...

Eye Though Pleo has eyes, he actually sees with a video camera in his nose. With this camera, Pleo can tell light from dark, detect movement, and track yellow and red objects. You can even download everything Pleo sees

Brain Pleo's brain is a computer, and he doesn't keep it in his head. Two small computer chips contain all the programming that allows Pleo to move, sense his

Other Eye A transmitter in Pleo's nose acts like bat sonar, bouncing pulses of infrared light (which we can't see) off objects so he doesn't walk into walls or fall off of tables. Pleos can also use these

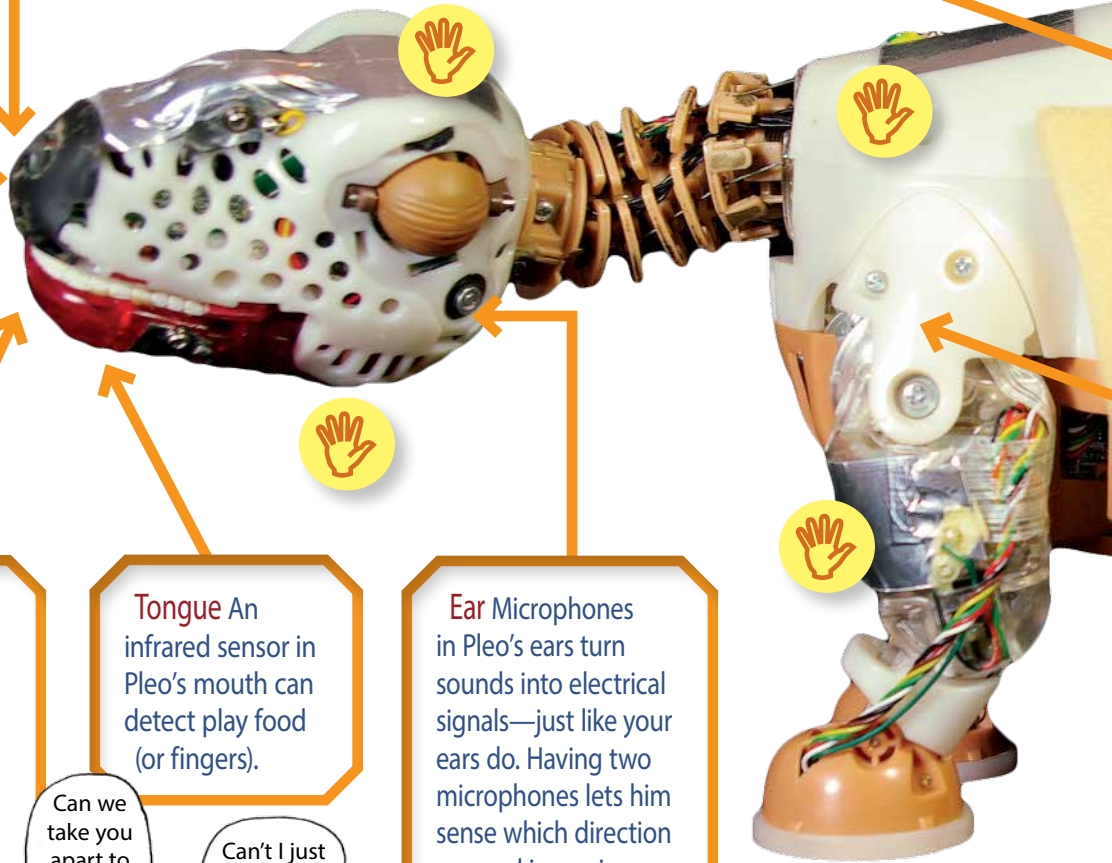
Voice A small speaker in his mouth turns electrical signals into sounds. Pleo has a menu of different recorded

Tongue An infrared sensor in Pleo's mouth can detect play food (or fingers).

Ear Microphones in Pleo's ears turn sounds into electrical signals—just like your ears do. Having two microphones lets him sense which direction a sound is coming from, and he will turn his head toward it.

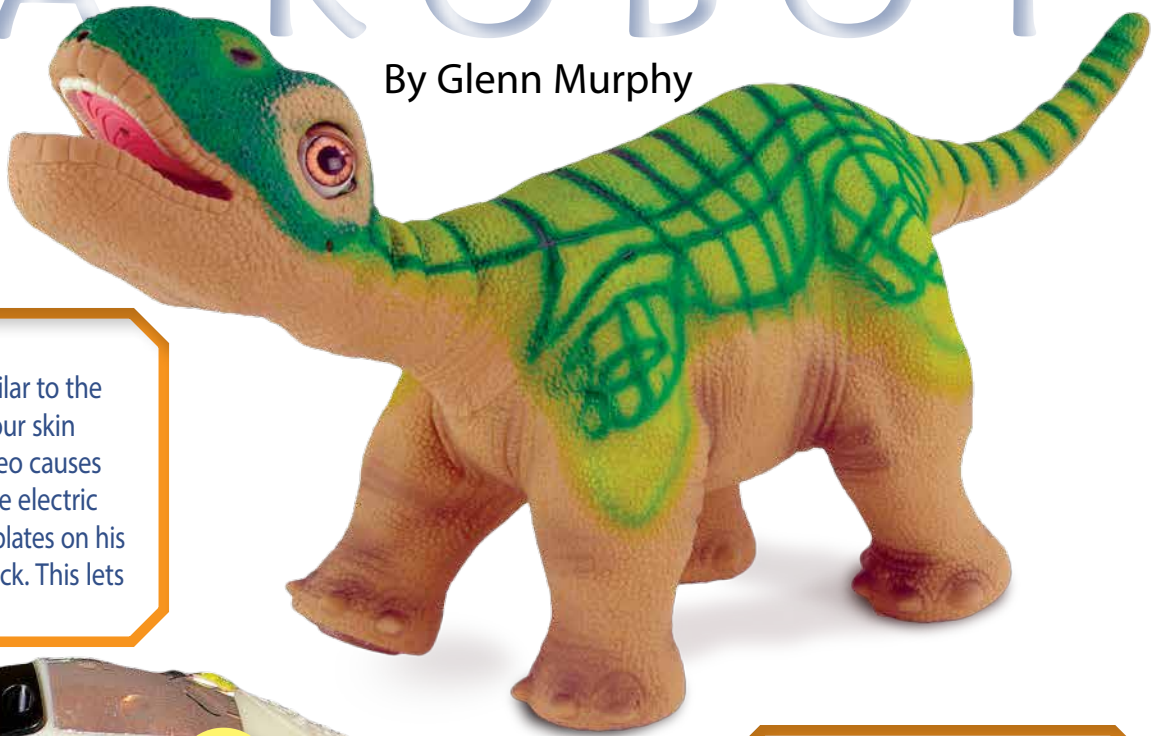
Can we take you apart to see how you work?

Can't I just tell you?

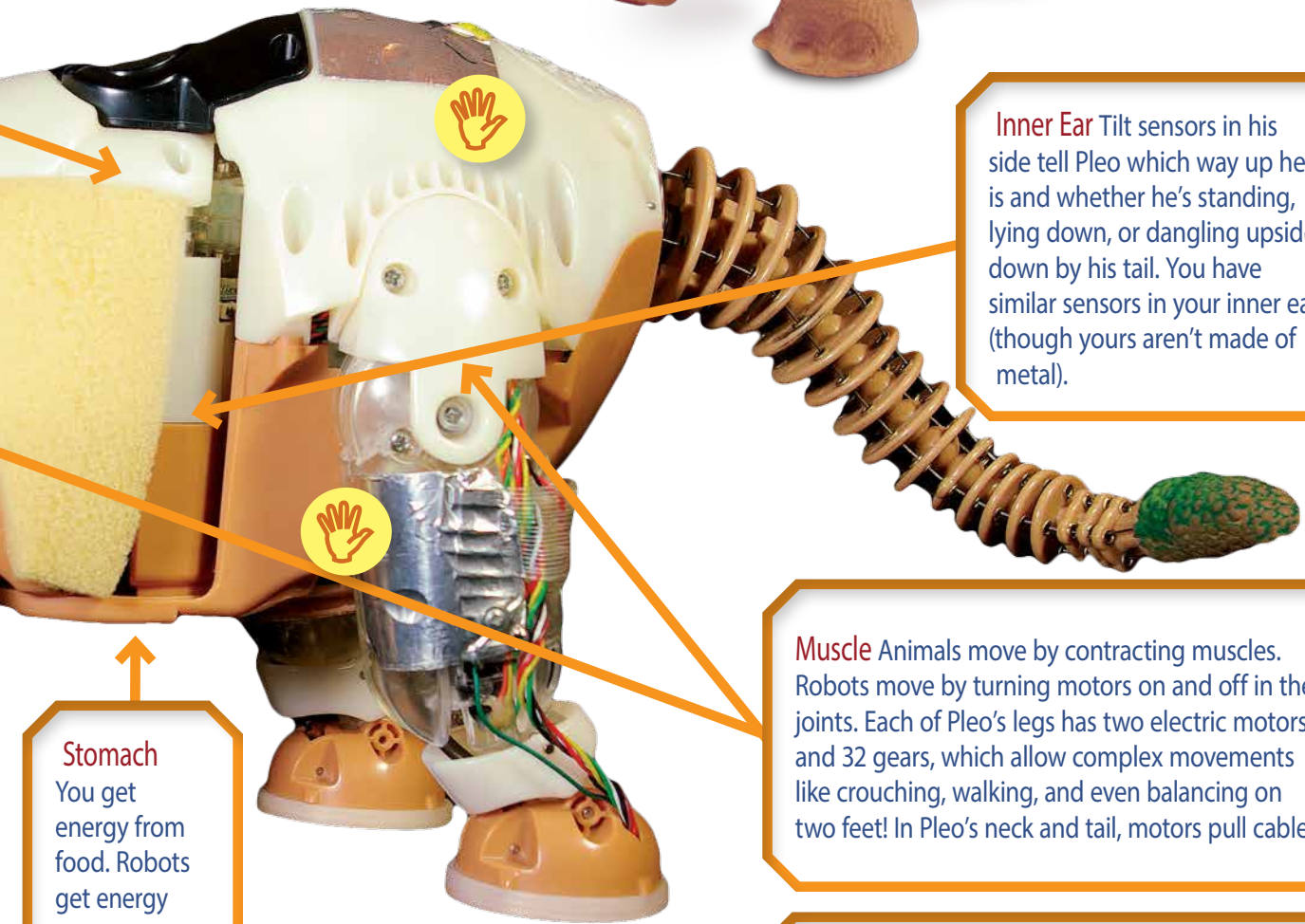


F A R O B O T

By Glenn Murphy



Skin Similar to the way nerves in your skin work, touching Pleo causes tiny changes in the electric current in sensor plates on his head, legs, and back. This lets



Inner Ear Tilt sensors in his side tell Pleo which way up he is and whether he's standing, lying down, or dangling upside down by his tail. You have similar sensors in your inner ear (though yours aren't made of metal).



Stomach
You get energy from food. Robots get energy

Muscle Animals move by contracting muscles. Robots move by turning motors on and off in their joints. Each of Pleo's legs has two electric motors and 32 gears, which allow complex movements like crouching, walking, and even balancing on two feet! In Pleo's neck and tail, motors pull cables

Nerves Pressure sensors in his feet tell Pleo whether he's on solid ground or has been picked