& TECHNOLOGY

SCIENCE

THESE SCIENCE AND TECHNOLOGY LEADERS ARE MAKING REMARKABLE STRIDES. THEIR WORK — ON MATTERS RANGING FROM HOMELAND SECURITY, ROBOTICS AND THE EVOLUTION OF THE COMPUTER TO BREAST CANCER AND STEM CELL RESEARCH — IS AIMED AT IMPROVING THE QUALITY OF OUR EVERYDAY, MODERN LIVES.

AYANNA HOWARD THE ROBOTIC ENGINEER.

THE VISIONARIES

When Ayanna M. Howard was a kid, she loved her dolls — and her erector sets. She could become totally immersed in a how-to book on the computer language BASIC or she could do what she loved most — watch another episode of *The Bionic Woman.* Today, Howard — who is recognized as one of the country's leading robotic engineers — not only builds robots and works with bionics, but also to teach and inspire others to follow in her footsteps.

Howard, 34, is not your typical associate professor. Standing five-feet tall and sporting braids that hang down her back, the effervescent electrical engineer is a big deal in the world of science and technology. Raised in Pasadena, Calif., Howard earned a B.S. from Brown University in computer engineering and both a masters and a Ph.D. from the University of Southern California in electrical engineering.

Her main area of research deals with robotics. In 1990, while still an undergraduate, Howard began working as a summer intern at NASA's Jet Propulsion Lab (JPL) in California. Her talent, innovation and passion were quickly recognized. As a result, she was soon leading research efforts on various projects dealing with artificial intelligence and embedding human cognitive ability into autonomous robots. JPL served as Howard's professional home until 2005, when she decided to take a