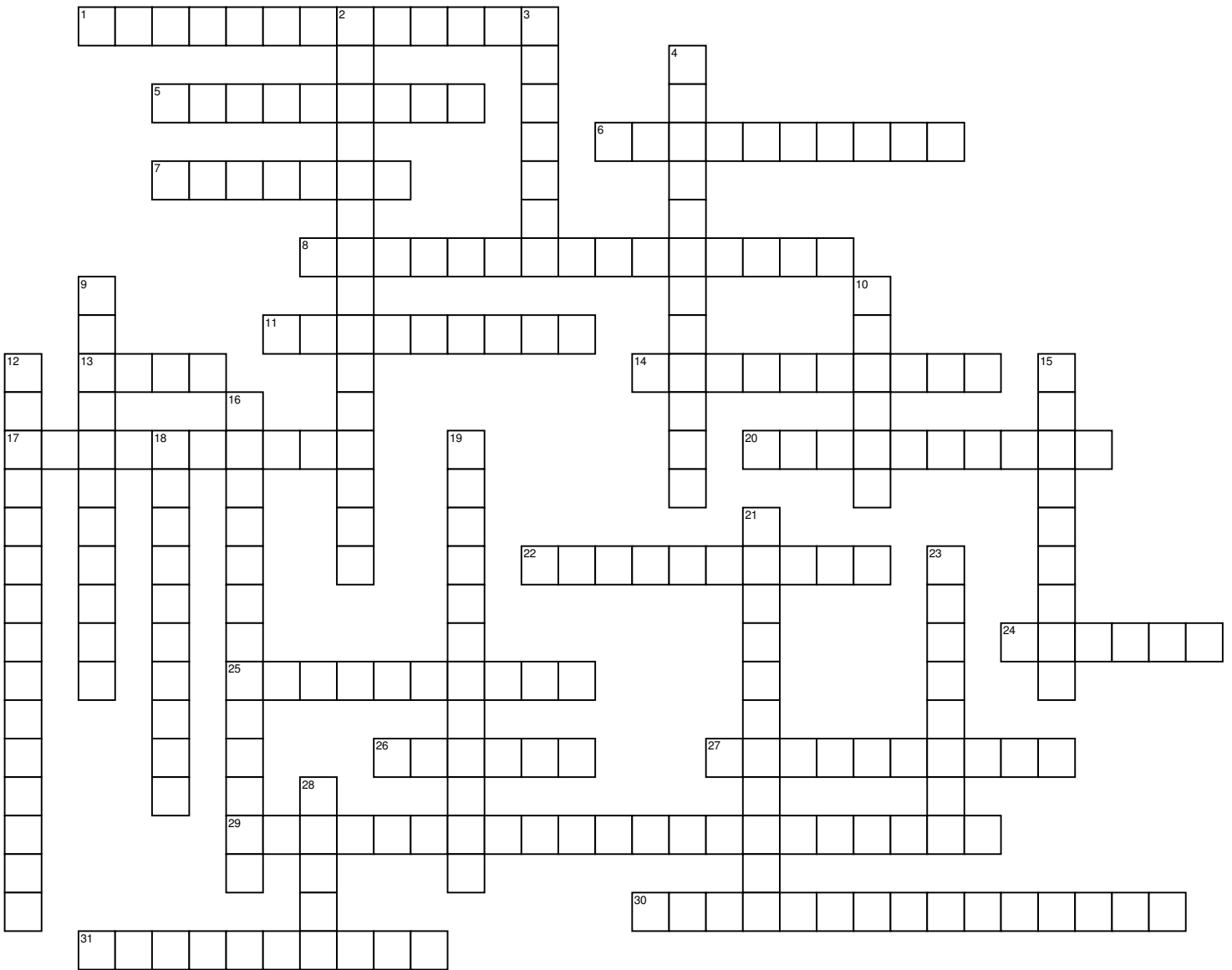


The Anatomy of a Robot



ACROSS

- 1 First company to install a UNIMATE, a robotic arm used to dangerous jobs.
- 5 The term ROBOT itself is a Czech word meaning forced labor or this.
- 6 The study of nature's designs and processes in search of inspiration for creating machines and processes that solve human problems.
- 7 Devices which gather some type of input from the outside environment.
- 8 This device will step up or down the power in a robot so that each device gets the proper voltage it needs.
- 11 This term was used to describe something robotic BEFORE the word ROBOT was coined.
- 13 Robotics depends on this for expression and style.
- 14 Wrote the first play about robots called R.U.R., Rossum's Universal Robots.
- 17 Robotics depends on this branch of Engineering for gears, motors, and body structure.
- 20 These 2 robots were revolutionary for their time as they had no pre-programming yet had several types of sensors.
- 22 The first person to use the word "ROBOT".
- 24 This is the most common type of feedback from sensors.
- 25 JIRA is chiefly concerned with this type of robot.
- 26 This type of robotic manipulator uses a human operator.
- 27 Robotics depends on this branch of Engineering for circuits and sensors.
- 29 Robots that are instructed to perform task through the receipt of a certain kind of information and are often used to make precision machinery.
- 30 The top choice for the BRAINS of a robot.
- 31 This type of manipulator performs a series of tasks in the same order every time they are activated.

an assembly line robotic arm.

- 9 Credited as the author of the word ROBOTICS in the short story, Runaround.
- 10 Considered to be the world's first "intelligent" robot.
- 12 Robotics depends on this for psuedo-intelligent behavior.
- 15 The world's first robot manufacturer.
- 16 This type of diode helps us monitor power status, motor engagement, and even helps us make diagnostic decisions about the robot.
- 18 This is the visual appeal of the robot and effects how people perceive the robot itself.
- 19 A term that refers to a smart device that is embedded into a system already in place.
- 21 The Robot Institute of America defines a robot as a reprogrammable, multifunctional this.
- 23 These types of robots can change the way they function in response to changes in their environment.
- 28 These types of robots are said to possess Artificial Intelligence.

DOWN

- 2 This device helps the motor regulate the power so that sudden bursts of power do not overload the circuitry,
- 3 These types of robots incorporate sensor feedback into their circuitry.
- 4 This type of manipulator is like