

Glossary

- 2-D** [ABBREV-U9] If an image is **2-D** (two-dimensional), it is displayed as a flat image on a page. *dwuwymiarowy*
- 3-D** [ABBREV-U9] If an image is **3-D** (three-dimensional), it is displayed in space with height, width, and depth. *trójwymiarowy*
- actuator** [N-COUNT-U11] An **actuator** is a device that supplies power to a robotic manipulator. *urządzenie uruchamiające, siłownik*
- angle θ** [N-UNCOUNT-U6] **Angle θ** is a measure of the difference in direction between two lines that meet at a point. *kąt (pomiędzy dwiema półprostymi)*
- angular velocity** [N-COUNT-U6] An **angular velocity** is a measure of something's degree of rotation over a particular amount of time. *prędkość kątowna*
- arc length** [N-COUNT-U6] An **arc length** is the distance between two points on the edge of a circle. *długość łuku*
- arch** [N-COUNT-U12] An **arch** is a curved structure with straight sides that supports the weight of something. *łuk*
- artificial organ** [N-COUNT-U15] An **artificial organ** is a self-contained device that is surgically placed inside a human body to replace a natural organ. *szuczny organ*
- automation** [N-UNCOUNT-U11] **Automation** is a process in which mechanical or electronic devices replace human interactions in a process. *automatyzacja*
- balanced geartrain** [N-COUNT-U8] A **balanced geartrain** is a planetary geartrain in which forces are evenly distributed among multiple planet gears. *pełnowartościowy układ kinetyczny sił zębatych*
- beam** [N-COUNT-U12] A **beam** is a long, heavy piece of wood or metal that supports a roof or forms part of a structure. *belka*
- biomechanics** [N-UNCOUNT-U15] **Biomechanics** is the science that studies biological systems and organisms from a mechanical standpoint, often for medical applications. *biomechanika*
- BioMEMS** [ABBREV-U15] **BioMEMS** (biological microelectromechanical systems) is a MEMS device that is used to analyze or manipulate biological matter. *technologia biomems*
- bottom-up design** [N-UNCOUNT-U10] **Bottom-up design** is a product development technique that focuses on implementing existing technology to solve a problem. *projektowanie od dołu, projektowanie oddolne*
- B-rep** [ABBREV-U9] A **B-rep** (boundary representation) is an image that is defined by its bordered surfaces. *modelowanie bryłowe*
- brittle failure** [N-COUNT-U13] A **brittle failure**, also called a fracture, is a material failure in which no bending or other deformation occurs before breakage. *złamanie*
- BTU** [ABBREV-U2] A **BTU** (British thermal unit) is a unit of measurement for heat energy, equal to the heat required to raise the temperature of 1 lb. of water by 1° F. *brytyjska jednostka ciepła*
- buckle** [V-I-U13] To **buckle** is to suddenly bend and collapse under stress. *odkształcać*
- burn** [V-I-U2] To **burn** is to combust or catch fire. *palić się, płonąć*
- burn out** [V-I-U4] To **burn out** is to cause damage or failure from overheating. *wypalić się*
- CAD** [ABBREV-U9] **CAD** (computer-aided design) is a form of industrial art that involves using a computer to create technical designs. *projektowanie wspierane komputerowo*
- carbon fiber** [N-UNCOUNT-U15] **Carbon fiber** is a strong woven material that is made of small strands of carbon atoms. *włókno węglowe*
- carrier** [N-COUNT-U8] A **carrier** is a link that connects the center of a sun gear to the center of a planetary gear. *nośnik*
- catenary** [N-COUNT-U12] A **catenary** is the curve assumed approximately by a heavy uniform cord or chain hanging freely from two points. *krzywa łańcuchowa*
- center of rotation** [N-COUNT-U6] A **center of rotation** is the central point that an object moves around when it rotates. *środek obrotu*
- chemical energy** [N-UNCOUNT-U1] **Chemical energy** is energy that is released by the interaction of chemical substances. *energia chemiczna*

- column** [N-COUNT-U12] A **column** is a tall, thick post that supports a building's roof, or may be used for decoration.
kolumna
- combustion** [N-UNCOUNT-U2] **Combustion** is the rapid conversion of fuel into heat and light through a chemical reaction. spalanie
- combustion chamber** [N-COUNT-U3] A **combustion chamber** is an enclosed space where fuel ignites and burns.
komora spalania
- composite** [N-COUNT-U15] A **composite** is a material that consists of multiple other materials, each of which has drastically different properties. kompozyt
- compound geartrain** [N-COUNT-U8] A **compound geartrain** is a chain of multiple gears in which at least one shaft contains more than one gear. koło zębate wielowieńcowe
- compress** [V-T-U4] To **compress** something is to reduce its volume by pressing or squeezing it. sprężać
- compression stroke** [N-COUNT-U5] The **compression stroke** is a stage in the four-stroke cycle in which the piston moves to the top of the cylinder to compress the mixture of fuel and air. suw sprężania
- concurrent engineering** [N-UNCOUNT-U10] **Concurrent engineering** is a product development technique in which multiple stages of development occur simultaneously. projektowanie współbieżne
- conduction** [N-UNCOUNT-U2] **Conduction** is the process of transferring heat between substances that are in contact with each other. przewodnictwo, kondukcja
- connecting rod** [N-COUNT-U3] A **connecting rod** is a piece that connects a piston to a crankshaft, transferring motion as the piston moves up and down. korbówód
- conserve** [V-T-U1] To **conserve** something is to use little or none of it so that it will be available at a later time.
oszczędzać
- convection** [N-UNCOUNT-U2] **Convection** is the transfer of heat by the circulation of molecular currents within a fluid such as air or water. konwekcja
- convert** [V-T-U1] To **convert** something is to change it into a different form or system. zmieniać, przekształcać
- corrosion** [N-UNCOUNT-U13] **Corrosion** is chemical damage to a metal object that causes it to disintegrate gradually over time. korozja, korodowanie
- crankcase** [N-COUNT-U3] A **crankcase** is a structural component below an engine's cylinders that houses the crankshaft. skrzynia korbowa
- crankshaft** [N-COUNT-U3] A **crankshaft** is the main shaft in an engine, and is moved by connecting rods. wał korbowy
- crash test** [N-COUNT-U14] A **crash test** is a destructive test that is used to determine the safety of a vehicle in a crash situation. test zderzeniowy
- creep** [N-UNCOUNT-U13] **Creep** is the tendency of objects to slowly bend, deform, or move under constant stress.
odkształcenie
- CSG** [ABBREV-U9] **CSG** (constructive solid geometry) is a method of using primitive shapes to show volume within 3-D models. technika trójwymiarowego modelowania brył z wykorzystaniem prostych figur geometrycznych
- cycle** [N-COUNT-U4] A **cycle** is a process of performing a series of steps in a particular order repeatedly. cykl
- cylinder** [N-COUNT-U3] A **cylinder** is a round working part in an engine, inside which the piston moves. cylinder
- cylinder head** [N-COUNT-U5] A **cylinder head** is the part of a four-stroke engine that houses the valves and often contains vents for channeling excess heat away from the engine. głowica cylindra
- deform** [V-I-U13] To **deform** is to bend or change shape. deformować, zniekształcać
- degree** [N-COUNT-U6] A **degree** (°) is a unit that measures angles, and is equal to 1/360 of a complete circle. stopień
- design strategy** [N-COUNT-U10] A **design strategy** is a plan that guides individuals or firms when designing products.
strategia projektowania
- dexterity** [N-UNCOUNT-U11] **Dexterity** is the ability to manipulate something with hands or hand-like components.
sprawność, zręczność (manualna)

Glossary

- diesel** [N-UNCOUNT-U3] **Diesel** is a dense liquid fossil fuel that becomes more viscous in cold temperatures. olej napędowy
- direction** [N-COUNT-U8] A **direction** is the angle or course along which something is facing, moving, or preparing to move. kierunek
- drafting** [N-UNCOUNT-U9] **Drafting** is the process of drawing designs and diagrams for industries like engineering, architecture, and manufacturing. przygotowywanie wstępnej wersji/ szkicu
- DT (Destructive Testing)** [ABBREV-U14] **DT (Destructive Testing)** is a category of materials analysis that assesses the properties of materials by increasing the intensity of the test until the material fails. badania niszczące
- ductile failure** [N-COUNT-U13] A **ductile failure**, also called a yield, is a material failure in which some measure of bending or deformation occurs before breakage. zniszczenie ciągliwe
- elastic potential energy** [N-UNCOUNT-U1] **Elastic potential energy** is the energy stored in an object as it is stretched or bent and is released as the object returns to its original shape. energia sprężystości
- elasticity theory** [N-UNCOUNT-U12] **Elasticity theory** is an approach to structural analysis that focuses on the way objects deform under loads. teoria sprężystości
- element** [N-COUNT-U12] An **element** is an important, basic part of something. część, składnik
- enabling device** [N-COUNT-U11] An **enabling device** is a manually activated mechanism that allows motion when engaged and immediately stops motion when disengaged. urządzenie uaktywniające, urządzenie uruchamiające
- end-effector** [N-COUNT-U11] An **end-effector** is a gripping tool or other device at the end of a manipulator. chwytak
- energy efficiency** [N-UNCOUNT-U1] **Energy efficiency** is the ratio between the amount of energy used and the useful output of that energy. wydajność energetyczna
- energy quality** [N-UNCOUNT-U1] **Energy quality** is the contrast between different forms of energy and their ability to perform useful work. jakość energii
- engine block** [N-COUNT-U3] An **engine block** is the main structural component of an engine, and contains its cylinders. kadłub silnika
- exhaust** [N-UNCOUNT-U4] **Exhaust** is the escaping gas or vapor that is emitted from fuel combustion. spaliny
- exhaust stroke** [N-COUNT-U5] The **exhaust stroke** is a stage in the four-stroke cycle in which the piston returns to the top of the cylinder and forces the mixture of fuel and air out through the open exhaust valve. suw wydechu
- exhaust valve** [N-COUNT-U5] An **exhaust valve** is an opening in an engine that releases exhaust from the cylinder after ignition. zawór wylotowy
- exploded view** [N-COUNT-U9] An **exploded view** is a diagram that shows the parts of something slightly separated from each other so that each component is displayed clearly. widok zespołu rozebranego (ukazuje wzajemne położenie części)
- extensometer** [N-COUNT-U14] An **extensometer** is a sensor in a materials testing machine that measures how much a sample stretches under tension. ekstensometr
- failure analysis** [N-UNCOUNT-U13] **Failure analysis** is the process of collecting information in order to determine the cause of a failure. analiza uszkodzeń
- failure rate** [N-COUNT-U13] A **failure rate** is a measure of how frequently a mechanical system or component will fail. wskaźnik awaryjności
- failure theory** [N-UNCOUNT-U13] **Failure theory** is the science of predicting the circumstances under which solid materials fail. teoria uszkodzeń materiałów
- fatigue** [N-UNCOUNT-U13] **Fatigue** is the progressive weakening or damage of a material under repeated forces. zmęczenie materiału
- finite element method** [N-COUNT-U12] The **finite element method** is an approach to structural analysis that focuses on numerical analysis and probabilities. metoda elementów skróconych
- fire** [V-T-U4] To **fire** something is to create a spark which ignites fuel in an engine. zapalać

- flow line** [N-COUNT-U11] A **flow line** is a sequence of machines that are arranged to perform a series of operations in a particular order. *linia przepływowa*
- force deflection** [N-UNCOUNT-U14] **Force deflection** is a measure of the temporary deformation of a structural component when a load is applied. *siła ugięcia*
- four-stroke engine** [N-COUNT-U5] A **four-stroke engine** is a type of internal combustion engine that uses four piston strokes to complete a power cycle, and is commonly used in automobiles and aircraft. *silnik czterosuwowy*
- fracture** [N-COUNT-U13] A **fracture**, also called a brittle failure, is a material failure in which no bending or other deformation occurs before breakage. *złamanie*
- frictional loss** [N-UNCOUNT-U7] **Frictional loss** is the amount of power that is lost while overcoming the friction between two surfaces. *straty energii spowodowane tarciem*
- FSW (friction stir welding)** [ABBREV-U15] **FSW (friction stir welding)** is a metal-joining technique that fuses the two metals with pressure instead of melting them. *zgrzewanie tarciowe z przemieszaniem*
- fuel** [N-UNCOUNT-U4] **Fuel** is any material that is used to produce energy, usually by burning it. *paliwo*
- fuel injection pump** [N-COUNT-U3] A **fuel injection pump** is a device that feeds fuel into the combustion chamber of a diesel engine. *pompa wtryskowa*
- fuel-to-oil ratio** [N-COUNT-U4] A **fuel-to-oil ratio** is the relationship between the amounts of oil and fuel that are used in an engine. *proporcja benzyny do oleju w silniku dwusuwowym*
- gasoline** [N-UNCOUNT-U3] **Gasoline** is a liquid fossil fuel that is highly volatile and does not become more viscous in cold temperatures. *benzyna*
- gearset** [N-COUNT-U7] A **gearset** is a pair of gears that fit together. *zespół kół zębanych*
- glow plug** [N-COUNT-U3] A **glow plug** is a device that aids combustion in diesel engines by heating cylinders. *świeca żarowa*
- gravitational potential energy** [N-UNCOUNT-U1] **Gravitational potential energy** is the energy stored in an object relative to its elevation and is released as the object falls to Earth. *energia potencjalna*
- grind** [V-I-U7] To **grind** is to rub against something else roughly. *trzeć*
- hardness test** [N-COUNT-U14] A **hardness test** is a destructive test that is used to determine a material's resistance to permanent deformities, such as scratches and indentations. *próba twardości (materiału)*
- head** [N-COUNT-U3] A **head** is a structural component at the top of an engine that covers the tops of the cylinders, holds the spark plugs, and often contains valves. *głowica*
- head gasket** [N-COUNT-U5] A **head gasket** is a ring that seals an engine's cylinder head to maintain the proper interior pressure and prevent substances from leaking in or out. *uszczelka głowicy*
- heat** [N-UNCOUNT-U2] **Heat** is a form of energy that produces high temperatures and occurs during the release of kinetic energy. *ciepło*
- hydraulic** [ADJ-U11] If something is **hydraulic**, it creates power through the movement of a fluid, such as water. *hydrauliczny*
- idler gear** [N-COUNT-U8] An **idler gear** is a gear in a geartrain that does not change the speed or torque of the geartrain as a whole. *koło zębate pośrednie*
- IGES** [ABBREV-U9] The **IGES** (Initial Graphics Exchange Standard) is an intermediate data exchange design system that represents 3-D analytical geometry, and uses particular formats for annotations and graphics-related data. *wstępna specyfikacja wymiany danych graficznych*
- ignite** [V-T-U5] To **ignite** something is to cause something to burn. *powodować zapłon*
- inlet** [N-UNCOUNT-U4] An **inlet** is a valve where air, fuel, and oil enter a combustion chamber. *wlot, otwór wlotowy*
- input torque** [N-UNCOUNT-U7] **Input torque** is the amount of torque that a gear receives from an outside source, such as a motor. *moment wejściowy*

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- intake stroke** [N-COUNT-U5] The **intake stroke** is a stage in the four-stroke cycle in which the piston moves to the bottom of the cylinder, drawing fuel and air into the combustion chamber. *suw ssania*
- intake valve** [N-COUNT-U5] An **intake valve** is an opening that allows air and fuel to enter an engine's cylinder. *zawór wlotowy*
- joint** [N-COUNT-U11] A **joint** is a place where two things are joined together in a way that allows movement. *przegub, złącze*
- kinetic energy** [N-UNCOUNT-U1] **Kinetic energy** is energy that is active or moving. *energia kinetyczna*
- lab-on-a-chip** [N-COUNT-U15] A **lab-on-a-chip** is an integrated circuit that is designed to perform one or more laboratory fluid-handling functions. *laboratorium chipowe*
- laws of thermodynamics** [N-PHRASE-U2] The **laws of thermodynamics** are four rules explaining the natural behavior of heat energy. *zasady termodynamiki*
- lifecycle assessment** [N-COUNT-U10] A **lifecycle assessment** is a way of evaluating the total environmental impact of a product or service. *ocena wpływu produktu lub usługi na środowisko naturalne*
- macroscopic failure** [N-UNCOUNT-U13] **Macroscopic failure** is a failure that is caused by a change in a material's ability to support weight or store energy. *usterka makroskopowa*
- manifold model** [N-COUNT-U9] A **manifold model** is a 3-D solid model that maintains the dimensions of an object by including only bordered surfaces. *model 3D, który zachowuje wymiary obiektu, uwzględniając wyłącznie powierzchnie graniczne*
- manipulator** [N-COUNT-U11] A **manipulator** is a part of a robot that acts as an arm and controls the movement of something. *manipulator robotyczny*
- manufacturing process management** [N-UNCOUNT-U10] **Manufacturing process management** is an area of product lifecycle management that focuses on determining how products will be made. *zarządzanie procesem produkcji*
- material intensiveness** [N-UNCOUNT-U10] **Material intensiveness** is a measure of the toxicity and amount of a material required to make a product. *intensywność materiału (miara określająca ilość danego materiału, niezbędną do wytworzenia określonego produktu oraz substancji toksycznych, które powstaną w trakcie jego produkcji)*
- material life extension** [N-UNCOUNT-U10] **Material life extension** is the act of ensuring that a product's materials are still useful after the product is worn out. *przedłużenie życia materiału (zapewnienie, że materiał, z którego został wykonany produkt będą nadal użyteczne po jego zużyciu)*
- material selection** [N-UNCOUNT-U10] **Material selection** is the stage of product development in which a designer decides what materials to make a product with. *dobór materiału*
- materials testing machine** [N-COUNT-U14] A **materials testing machine** is a device for testing the force deflection and stress-strain relationship of a particular material. *urządzenie do badania wytrzymałości materiałów*
- mechanical energy** [N-UNCOUNT-U1] **Mechanical energy** is the combination of kinetic and potential energy in a machine. *energia mechaniczna*
- mechanics of materials** [N-UNCOUNT-U12] **Mechanics of materials** is an approach to structural analysis that focuses on the way the materials behave under stress. *wytrzymałość materiałów (dziedzina wiedzy inżynierskiej)*
- mechanosynthesis** [N-UNCOUNT-U15] **Mechanosynthesis** is a type of chemical synthesis in which the outcome is controlled by mechanical intervention. *mechanosynteza*
- mechatronics** [N-UNCOUNT-U15] **Mechatronics** is an engineering field that combines principles from mechanical, electrical, computer, and software engineering to develop useful new products and technologies. *mechatronika*
- MEMS** [ABBREVIATION-U15] A **MEMS** (microelectromechanical system) is a very small mechanical component that is used in electronic devices. *mikroukład elektromechaniczny*
- mesh point** [N-COUNT-U8] A **mesh point** is the point at which two gears come together. *punkt zazębienia*
- metallographic test** [N-COUNT-U14] A **metallographic test** is a non-destructive test that is used to examine the properties of metal by studying samples under a microscope. *badania metalograficzne*

- metallurgical failure analysis** [N-UNCOUNT-U13] **Metallurgical failure analysis** is the study of a mechanical system to determine the cause of failure of a metal part. *analiza uszkodzeń mechanicznych metalu*
- microscopic failure** [N-UNCOUNT-U13] **Microscopic failure** is a failure that is caused by the presence of visible or microscopic cracks in a material. *mikropęknięcie (defekt materiału spowodowany uszkodzeniami widocznymi gołym okiem lub przy pomocy mikroskopu)*
- mix** [V-T-U4] To **mix** two or more things is to combine them. *łączyć, mieszać*
- model** [N-COUNT-U9] A **model** is a small or non-functional version of something that has the same features and scaling as the regular version. *model (czegoś)*
- nanotechnology** [N-UNCOUNT-U15] **Nanotechnology** is a branch of mechanical engineering that involves microscopic devices. *nanotechnologia*
- NDT (Non-Destructive Testing)** [ABBREV-U14] **NDT (Non-Destructive Testing)** is a category of materials analysis that assesses the properties of materials without damaging them. *próba nieniszcząca*
- NFF (No Fault Found)** [ABBREV-U14] **NFF (No Fault Found)** is a situation in failure analysis in which the cause of failure cannot be determined. *nie znaleziono przyczyny usterki (sytuacja, w której analiza usterki nie doprowadziła do ustalenia jej przyczyny)*
- nonbuilding structure** [N-COUNT-U12] A **nonbuilding structure** is a load-bearing structure that is not intended for human occupancy. *konstrukcja nośna, która nie jest częścią budynku mieszkalnego*
- non-manifold model** [N-COUNT-U9] A **non-manifold model** provides detailed surfaces and edges within a solid model, in addition to the bordered surfaces. *model z szczegółowym zarysem powierzchni i kątów wraz z granicami powierzchni*
- output torque** [N-UNCOUNT-U7] **Output torque** is the amount of torque that a gear receives from the machine's load. *wyjściowy moment obrotowy*
- packaging** [N-UNCOUNT-U10] **Packaging** is the act of putting products in wrappers or containers, or the wrappers or containers themselves. *opakowanie, pakowanie*
- payload** [N-COUNT-U11] A **payload** is the size or weight of something that a robot is capable of manipulating. *ładunek*
- PDES** [ABBREV-U9] **PDES** (Product Description Exchange for STEP) is a data exchange format that contains geometry, functions, and process plans for a product. *wymiana danych o produkcie za pomocą systemu STEP*
- pendant** [N-COUNT-U11] A **pendant** is a mobile input device that is connected to a robot's control system, and may be used to control the robot from some distance away. *kaseta sterownicza*
- photorealistic rendering** [N-COUNT-U9] A **photorealistic rendering** is a still or moving image that shows very realistic representations of objects and processes. *renderowanie realistyczne*
- piston** [N-COUNT-U3] A **piston** is a cylindrical plug that moves up and down in a cylinder during engine operation. *tłok*
- piston ring** [N-COUNT-U3] A **piston ring** is a metal ring that fills the space between a piston and a cylinder wall, so that fuel cannot pass through the gap. *pierścień tłokowy*
- pitch** [N-COUNT-U7] A **pitch** is the distance between a point on one tooth of a gear and the same point on the next tooth. *tu: odstęp między zębami w kole zębatym*
- pitch circle** [N-COUNT-U7] A **pitch circle** is an imaginary circle that passes through a gear's mesh points. *koło podziałowe*
- pitch radius** [N-COUNT-U7] A **pitch radius** is the distance from the center of a gear to the edge of its pitch circle. *promień skoku koła zębatego*
- pivot point** [N-COUNT-U6] A **pivot point** is a point on a mechanism around which something turns. *punkt obrotu*
- planet gear** [N-COUNT-U8] A **planet gear** is a gear that travels around the sun gear in a planetary geartrain. *koło zębate przekładni planetarnej (obiegowej)*
- planetary geartrain** [N-COUNT-U8] A **planetary geartrain** is a system of connected gears in which one or more gears travel around a central stationary gear, similar to the motion of planets around a star. *przekładnia planetarna; przekłania obiegowa*

Glossary

- planned obsolescence** [N-UNCOUNT-U10] **Planned obsolescence** is the process of producing products that require frequent replacement. *planowane postarzenie produktu*
- plate** [N-COUNT-U12] A **plate** is a flat element that is used in construction. *plyta*
- pneumatic** [ADJ-U11] If machinery is **pneumatic**, it uses pressurized gas to control mechanical motion. *pneumatyczny*
- power** [N-UNCOUNT-U1] **Power** is a quantity indicating the rate at which energy is consumed or transferred. *moc*
- power stroke** [N-COUNT-U5] The **power stroke** is a stage in the four-stroke cycle in which heat ignites the compressed fuel and air, forcing the piston downward. *suw rozprężania*
- pressure** [N-UNCOUNT-U5] **Pressure** is force that is produced when something pushes or squeezes something else. *ciśnienie*
- product data management** [N-UNCOUNT-U10] **Product data management** is an area of product lifecycle management that focuses on maintaining and organizing product information throughout the development process and into the product's useful life. *zarządzanie danymi produktu*
- product lifecycle extension** [N-UNCOUNT-U10] **Product lifecycle extension** is the act of making a product last longer so it does not have to be replaced. *wydłużenie cyklu czasu życia produktu*
- product management** [N-UNCOUNT-U10] **Product management** is an area of product lifecycle management that focuses on planning, marketing, and predicting market success of a product. *zarządzanie produktem*
- prosthetic** [N-COUNT-U15] A **prosthetic** is an artificial body part that is designed to take the place of a missing body part, such as an arm or a leg. *protetyczny*
- radian** [N-COUNT-U6] A **radian** is a unit that measures angles, and represents the angle formed by an arc length that equals the circle's radius. *radian*
- radiation** [N-UNCOUNT-U2] **Radiation** is energy emission in the form of a wave of particles. *promieniowanie*
- radius** [N-COUNT-U6] A **radius** is the distance between the center of a circle or sphere and its outer edge. *promień*
- revolution** [N-COUNT-U4] A **revolution** is a complete 360° rotation that returns something to its starting position or orientation. *tu: obrót (np. wału korbowego)*
- revolution** [N-COUNT-U6] A **revolution** is a full rotation of something, so that a point along the edge completes a circle and returns to its starting location. *pełny obrót*
- rigidity** [N-UNCOUNT-U15] **Rigidity** is a material's stiffness or resistance to deformation. *sztywność, twardość*
- ring gear** [N-COUNT-U8] A **ring gear** is a fixed internal gear that encircles a planetary geartrain. *zębatka pierścieniowa*
- rivet** [N-COUNT-U15] A **rivet** is a permanent metal fastening device that works by deforming and expanding during installation, preventing removal. *nit*
- robotics** [N-UNCOUNT-U11] **Robotics** is the science of designing and manufacturing robots. *robotyka*
- rotational motion** [N-UNCOUNT-U6] **Rotational motion** is the movement of an object in a circle around its center. *ruch obrotowy*
- RPM** [ABBREV-U6] **RPM** (revolutions per minute) are the number of complete rotations around an axis that something can complete in one minute. *obroty na minutę*
- RPS** [ABBREV-U6] **RPS** (revolutions per second) are the number of complete rotations around an axis that something can complete in one second. *obroty na sekundę*
- serial** [ADJ-U8] If something is **serial**, it is part of a series or collection. *seryjny*
- serial robot** [N-COUNT-U11] A **serial robot** is a robot that consists of a linear series of parts connected by joints. *manipulator szeregowy (rodzaj robota)*
- shell** [N-COUNT-U12] A **shell** is a strong, curved element that is used in construction. *tu: obudowa*
- shift fork** [N-COUNT-U7] A **shift fork** is a mechanism that slides a gear along a splined shaft. *widelki przesuwne*
- simple geartrain** [N-COUNT-U8] A **simple geartrain** is a chain of three or more gears in which each shaft bears only one gear. *prosta przekładnia zębata*

- slip** [V-I-U7] To **slip** is to move accidentally from a location. *zsuwać się*
- spark plug** [N-COUNT-U3] A **spark plug** is a device that creates an electrical spark to ignite fuel. *świeca zapłonowa*
- specific heat** [N-UNCOUNT-U2] **Specific heat** is the amount of heat required to raise the temperature of a particular material. *ciepło właściwe*
- speed** [N-UNCOUNT-U7] **Speed** is the rate at which something moves. *szybkość, prędkość*
- spider** [N-COUNT-U8] A **spider** is a carrier that is specially designed to accommodate multiple planet gears. *ramię w przekładni obiegowej (planetarnej); również: carrier, arm*
- stress test** [N-COUNT-U14] A **stress test** is a destructive test that determines a material's strength under different types of stress. *próba obciążeniowa*
- stress-strain curve** [N-COUNT-U14] A **stress-strain curve** is the relationship between the amount of force applied to a material and its corresponding deformation. *krzywa naprężenia*
- structural analysis** [N-UNCOUNT-U12] **Structural analysis** is the study and assessment of structures and their ability to bear loads. *analiza strukturalna*
- structural load** [N-COUNT-U12] A **structural load** is the amount of weight or pressure that a structure supports. *obciążenie*
- sump** [N-COUNT-U3] A **sump** is a reservoir that collects oil at the bottom of an engine. *misa olejowa*
- sun gear** [N-COUNT-U8] A **sun gear** is a stationary central gear in a planetary geartrain that transfers rotation to the rest of the machine. *koło centralne, koło główne w przekładni obiegowej*
- support** [V-T-U12] To **support** something is to bear its weight or prevent it from collapsing. *podpierać*
- systems engineering** [N-UNCOUNT-U10] **Systems engineering** is an area of product lifecycle management that focuses on meeting consumer needs and requirements and coordinating relevant disciplines in a project. *projektowanie systemowe*
- technical drawing** [N-COUNT-U9] A **technical drawing** is a precise, realistic drawing of something. *rysunek techniczny*
- thermal conductivity** [N-UNCOUNT-U2] **Thermal conductivity** is the relative ability of a material to transfer heat. *przewodność cieplna*
- thermal energy** [N-UNCOUNT-U1] **Thermal energy** is energy that is released by the movement or vibration of a material's atoms or molecules. *energia termiczna*
- thermal shock** [N-UNCOUNT-U13] **Thermal shock** is a common cause of material failure that occurs when an object is subjected to sudden changes in temperature. *szok termiczny*
- thermodynamics** [N-UNCOUNT-U2] **Thermodynamics** is the science of heat energy and its application for performing work. *termodynamika*
- top-down design** [N-UNCOUNT-U10] **Top-down design** is a product development technique that focuses on the ideal function of a product rather than the use of existing technology. *projektowanie oddolne*
- torque** [N-UNCOUNT-U7] **Torque** is the force that causes an object to turn around a point. *moment obrotowy*
- torque ratio** [N-COUNT-U7] A **torque ratio** is the relationship between a gearset's output torque and its input torque. *stosunek między wyjściowym momentem obrotowym a momentem wejściowym*
- two-stroke engine** [N-COUNT-U4] A **two-stroke engine** is an internal combustion engine that only requires one revolution of the crankshaft to complete a power cycle. *silnik dwusuwowy*
- two-stroke oil** [N-UNCOUNT-U4] **Two-stroke oil** is an oil added to the fuel of a two-stroke engine to provide extra lubrication. *olej do silników dwusuwowych*
- valve** [N-COUNT-U3] A **valve** is a device that controls the flow of fluid by opening and closing. *zawór*
- velocity ratio** [N-COUNT-U7] A **velocity ratio** is the relationship between a gearset's output speed and its input speed. *stosunek prędkości wejściowej do prędkości wyjściowej w przekładni obiegowej*
- weld verification** [N-UNCOUNT-U14] **Weld verification** is an NDT technique that is used to confirm the strength and integrity of a weld. *badanie spoin (np. spawów)*
- work** [N-UNCOUNT-U1] **Work** is a quantity that indicates the transfer of energy, measured by multiplying force by the distance the energy travels. *praca*

Glossary

work [N-UNCOUNT-U1] **Work** is a quantity that indicates the transfer of energy, measured by multiplying force by the distance the energy travels. *praca*

work envelope [N-COUNT-U11] A **work envelope** is the area that can be reached by a robot's end-effector. *obszar zasięgu robota ?*

yield [N-COUNT-U13] A **yield**, also called a ductile failure, is a material failure in which some measure of bending or deformation occurs before breakage. *uszkodzenie materiału ?*