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TOBY'S ROBOTICS LTD

Toby's ROBOTICS is an international company that creates controllable robotics that makes the life kind of man easier, stress free and better.

WHAT ARE ROBOTICS

Robotics is the intersection of science, engineering and technology that produces machines, called robots, that substitute for (or replicate) human actions. Pop culture has always been fascinated with robots. R2-D2. Optimus Prime. WALL-E. These over-exaggerated, humanoid concepts of robots usually seem like a caricature of the real thing...or are they more forward thinking than we realize? Robots are gaining intellectual and mechanical capabilities that don't put the possibility of a R2-D2-like machine out of reach in the future.

As technology progresses, so too does the scope of what is considered robotics. In 2005, 90% of all robots could be found assembling cars in automotive factories. These robots consist mainly of mechanical arms tasked with welding or screwing on certain parts of a car. Today, we're seeing an evolved and expanded definition of robotics that includes the development, creation and use of bots that explore Earth's harshest conditions, robots that assist law-enforcement and even robots that assist in almost every facet of healthcare.

EXAMPLES OF ROBOTICS

Air Cobot



Image source: Airbus

Air Cobot is a French-manufactured cobot (working WITH a human) able to inspect aircraft during maintenance operations. The project began in 2013 with emphasis upon lower half aircraft inspection and has continued to “spiral” up. Inspection takes place at both the airport and at the factory. The off-road robot platform moves at about 5 mph and comes equipped with front and rear bumpers not for the purpose of crash avoidance (!) but rather to detect obstacles. Speaking of detection, the Air Cobot boasts multiple sensors, specialty cameras and scanners, a GPS system, two on-board computers (one Linux, one Windows), and weighs in at about 500 pounds. Air safety just got an even stronger reputation!

Welding Robots



Image source: Rice Automation

Need a welding robot? The possibilities are endless! Take the group of arc-welding robots manufactured by Rice Automation in tiny Harviell, MO. How small? The last census counted just 106 citizens. Rumor has it that half that population are actually welding robots. Whatever the case, Rice offers a host of different models featuring ethernet motion control, USB controller capability, a reach of between 60-72 inches, a Megmeet /OTC power supply, and a robotic wire feeder. Where would we be without that feeder? In a heap of trouble on the work floor, that’s where! The benefits of using a welding robot are greater weld consistency and a higher quality

of overall welds versus a mixture of humans performing the same task. Sounds like a win-win!

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Industrial Floor Scrubbers



Image source: Walmart

We all love cleaning up around our work spaces, right? OK, next point. The Global Automatic Floor Scrubber Machine boasts a 1.6HP motor that offers 113" water lift, 180 RPM and a coverage rate of 17,000 sq. ft. per hour. Plus, it saves loads of money on paper towels. It also features a 12 gallon solution tank and a 15 gallon recovery tank. The scrubber itself has a heavy duty 30" cast aluminum squeegee assembly for removing cleaning solution. Model 641250 weighs in at a svelte 209 pounds. Why lift a finger when you can buy a \$1500 machine that works like an octopus!

Automotive Industry Robots



Image source: Tesla

Have automotive robots put the car manufacturing industry in the “fast lane?” (groan). Shamefully, the answer must be a resounding yes. With applications that have included screw driving, assembling, painting, trimming/cutting, pouring hazardous substances, labeling, welding, handling, quality control applications as well as tasks that require extreme precision, auto industry bots are at worst a value-added and a best, a virtual godsend. And where auto industry robots may end, cobots begin, encouraging mutual benefits gained between human and robot!

DRONES



Ecrobotix, a Swiss technology firm has a solar-controlled bot that not only can identify weeds but thereafter can treat them. Nao Technologies based in southwestern France has developed a robot with the ability to weed, hoe, and assist during harvesting. Energid Technologies based in Cambridge, MA has developed a citrus picking system that retrieves one piece of fruit every 2-3 seconds. Spain-based Agrobot has taken the treachery out of strawberry picking. Meanwhile, Blue River Technology has developed the LettuceBot2 that attaches itself to a tractor to thin out lettuce fields as well as prevent herbicide-resistant weeds.

The brand of Toby's ROBOTICS is (TMC) Toby's manufacturing company

Factory robotic automation is the process of integrating industrial machinery for tasks such as [welding](#), [material handling](#) and [assembly](#). Adding automated robotic systems to a factory has many advantages. It saves money, increases production, and creates higher-quality parts.

Integrating automated robots into a workplace generally requires a high initial investment, but the ROI time is minimal. To combat this issue, many companies are turning to reconditioned used robots. This allows the company to purchase a larger quantity of robots. A reconditioned automated robot offers the same automation benefits as a new robot. To boldly go where they've never gone before, robots will need to become smarter, cheaper and easier to use. The industry could turn to an unlikely source to get there.



The advantages of having automated robotics in a shop:

Improved labour productivity

Reduction in cycle time and floor space utilization

Quality and reliability improvement

Consistency in processing

Reduction of waste

Lower production costs

ROBOTICS Power Sources

Robots are expected to work tireless hours, yielding perfect, precise results around the clock. But what powers them? They don't need food and water; they need a power source. The selection of a robotic power source should be decision made in the early stages of design since it impacts the complete system.

The main sources of electrical power for robots are batteries. The type of battery that is used for a robot varies depending on the safety, life cycle, and weight. Lead acid batteries are common, as are silver cadmium batteries. Rechargeable batteries and primary batteries are both used; batteries that are not rechargeable are generally more powerful.

Other options for robotic power sources are: thermoelectric generators, which convert heat directly into electricity; fuel cells, which are similar to batteries except fuel and oxidants are continuously supplied,; super capacitors, which store high energy as a charge built up on plates; and tethers, which connect the robot to the power supply.

As the Sole proprietorship of Toby's ROBOTICS Company LTD it's a limited company limits the personal liability of the corporation's shareholders. It's attached to companies operating in the United Kingdom, India, and Australia. It can have one or more members/shareholders who buy a part of the business.

