

Transport robots

Since early days of human civilization one of the most critical problem has been transportation. While today trucks transport cargos over a few hundred kilograms, light items are still carried in wheelbarrows or trailers attached to compact tractors or ATVs. Such a solution can seem appropriate but not in the case of repeated passages to a specific location or in the case of travelling for a few kilometers. For example: removal of grass clippings, fallen leaves and garbage collection.

Small-sized transport robots such as SRX1 and SRX3 can successfully perform the above tasks. SRX1 can successfully transport a trailer with a load weighing up to 70 kg, while SRX3 — up to 200kg respectively. Both robots are equipped with electric engines that ensure noiseless operation without any smell of exhaust, which is not disturbing to people around. Reserved energy stored in build-in accumulators can last for dozens of kilometers of cyclic operation.



There are two ways to program robot's route map. First is to select a route on the digital map using a PC tablet attached to the robot. The second one is to walk in front of the robot on a desired route. The robot moves behind an operator in the «follow me» mode and compile a digital map for further navigation.

Trailer for transportation of bulk goods has a side dropping mechanism to allow automatic unloading without operator's intervention.

A trailer fitted with a water tank is suitable not only for water transportation but also for watering grass and other plants. This function is particularly useful in the moderate climates with sufficient precipitation, where building of fixed irrigation systems is not suitable. At the same time there are periods when watering is vital. On such occasions it is convenient to use an automatic self-moving watering system designed based on the SRX3 chassis. 200-liters water tank is sufficient for watering 10-20 sq. m. of lawn. The robot can also be programmed to automatically refill its water tank for watering larger areas. Robot's watering system is equipped with a pump, which allows the robot to reach distant parts of lawn from pathways without harming the grass.

The undoubted advantage of these wheeled robots is their ability to operate in a fully automatic mode — they are capable of moving along preselected routes and performing specified tasks without operator's involvement.