

Robotic solutions from Quantum Systems

1. About the Company

The “Quantum Systems” company is Russian developer of innovative robotic systems. We have ten years’ experience of successful working with bank self-service machines and cooperating with the largest banks of Russia (Sberbank, Bank of Moscow, Otkrytiye Bank). Brand new strategy was defined in 2014. It was robotic systems of new-generation. Quantum Systems created brand new approach of usage industrial robotic technologies in different fields of human activities. We put industrial manipulators in different fields that were not traditional for robots before: banking, gardening and even art.

2. Projects

“MonRo”

Having huge experience of working with bank equipment and software the Quantum Systems team has opened bank opportunities unavailable before. The main idea is minimizing of human factor in behavior of carrying out bank operations and extending of opportunities in the field of bank services and retail. “MonRo” may be used in many different bank and retail processes. In particular case the robot manipulator carries the bank operator’s functions and it is taught to work with different bank equipment (counters, validators, storage systems, vaults) and set to prefabricated construction. The whole system which works on the base of “smart” software allows organizing almost any business-processes in short-time period.

“CashMaster” is the project aimed to automatization of banks cash centers. Replacement of human labor with robot during organization of conversion section is aimed to reduce the influence of human factor on the process while working with big money amounts and to increase productivity of cash centers.

“Gardy” is assembled technology of positions’ determination and orientation of object in space. “Gardy” is robot-gardener which can bring shapes of any difficulty to green plants on the big territory with high accuracy.

3. Prospects

Nowadays the QS works in both directions:

“MonRo” project – now we have working system CashMaster that is at experimental operation in Sberbank’s hugest cash centre in Moscow; we work on project of automatization of the whole cash centre with Alfa-Bank.

“Gardy” project – we’ve started cooperation with Skolkovo Innovation Centre. The robot now works in big nursery. There is a plan to demonstrate complex’s facilities on the international exhibitions.

Robots - we have experience with robots-manipulators of different producers. The main partner in the field of robotic is KUKA - one of the world’s leading suppliers of intelligent automation solutions.

4. Conclusion

We use brand new approach to setting the goals for robot in our work. Robots have been trapped to industrial sphere for more than 50 years; we have a lot of entertaining equipment robotized around. But services sphere where using of robots may sufficiently increase the effectiveness of services, to reduce risks and also economic costs are not automated at all. That is why it has been defined as a strategic sector for the Quantum Systems for next decades.