**Automatic Warehouse Management Using Computer Vision and Robotics (AWMCR)**

**Abstract**

Until recently, the warehouses of the largest industrial companies were perceived as a kind of secondary subsidiary segment. As a result of such attitude, the warehouses were ignored, even while the implementation of corporate-wide technical modernization projects. Meanwhile, a warehouse is one of the production sites for important stages in the preparation of the final product.

Some technological processes are carried out in the warehouse, namely, the acquisition of goods, accounting of receipts, package and so on. Employers monitor the number of goods received, manually count the boxes, upload all the information to the database, move the boxes, distribute them throughout the warehouse, and also, from time to time, carry out the inventory of all products stored in the warehouse. all the above procedures are done by using our human resource.

Although the human factor significantly affects the quality of these tasks, the main problem for the owner is the expenses of the warehouse managed exclusively by people. And only when the costs of delivery, storage, and processing of commodity flows reach half the cost price of the finished products, managers start thinking about the ways to modernize and automate their storage and logistic processes.

The good news is that today there are quite comprehensive solutions designed to automate these processes. Through our project we are trying to design and develop a system to sort and keep track of our inventory in our warehouse with the help of Commuter Vision and Robotics

**Functional Block Diagram**

Real Time Online Data Base

Internet

Camera unit

AI and Computer Vision based Control Unit

ATMEGA328

IR Sensors

Motor Drivers

Robotic ARM