

# *Abstract*

REAL TIME SYSTEMS - PROJECT

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## **Robot functions**

Our robot will be placed in a "garage" together with the ball. If we remove the ball from the garage, the robot will move out and begin to search for it. He will try to find the ball, until he finds it, or until the time runs out. Ultrasonic sensor will be utilized to monitor the surrounding of the robot. During the searching for the ball, the robot will beep and intervals of beeping will get shorter, as he will move towards the ball.

If the robot finds the ball, he will check if it's really the ball (by touch or light sensor) and then try to push it back to the garage. If he succeeds, he will play cheerful melody to celebrate it. If the robot won't find the ball, he will play the sad melody.

We do not expect any other obstacles in surroundings of the garage, but if everything will be working fine, we can add them in a later phase of project.

## **Programming language**

We decided to use the C language.