

Badminton is a racquet game played on court with shuttles made from feathers or plastic. Top players train with hundreds of shuttles at once which are fed by coach from hand. After a short training period there are hundreds of shuttles scattered around the court, which need to be arranged in rows so that coach can feed them from hand. In this thesis we created software for autonomous robot that detects shuttlecocks with camera, estimates their position and picks them up. We implemented this as nodes in ROS middleware. During development we created simulated environment in Gazebo simulator where we tested our solution.