

Project Examples Fall 2015

Robotics

Baxter Program for Application – pick and place of Colored Golf Balls – Sort the balls according to color.

Turtlebot Mobile Robot Obstacle Avoidance
Use with Kinect for depth and vision
Moving Object Following (Based on Kinect)

Design of an “Assisting Robot”

MATLAB Robotics Toolbox

NI Mobile Robot - line following and obstacle avoidance

Various Simulations rviz, Gazebo, MoveIt

Survey of Algorithms for Map building in Robotics

Single Board Computers

Arduino - Program for applications and some HW design

Use with ROS and MATLAB

Other kits – Spark

Z-T CAM: Content Addressable Memory – Program and Demonstration

Your Suggestions:

Projects start with a survey - What is available in the marketplace and what research needs to be done? What is available at UHCL for you to work on in the lab?