Lab 6: Vision

Out: Thursday, 13 October 2011
Due: Thursday, 27 October 2011

Overview:

In this lab, you’ll use the USB camera to track colored objects.

Using the camera:

See the vision slides on the course web site. The same slides were discussed in lab on Thursday 10/13.

What to do:

For this lab, you should write a program that will allow your robot to search for an object of a particular color (a large bin of colored balls is in the lab for your convenience). Your robot should be able to track the object once it is found. If the object moves away, the robot should move closer to it (hint: look at the size of the tracked blob).

Once you can track an object and then keep it near the robot, you have some freedom for the lab. Make the robot do something interesting with vision. For example, you might have your robot find a particular color ball, then it will kick it away after getting near it. Or maybe you try to gather all of the same colored objects into some location. Your choice. Be creative.

What to turn in:

Turn in a copy of your code (commented, of course) at the start of class on Tuesday, 25 October. You should also show your robot’s behavior to me, either in lab on Thursday, 20 October, or after class on Tuesday, 25 October.