

Java Camera

An intelligent camera, programmable in Java must be extended with possibilities to calculate the direction of movement and to allow counting of the number of people entering a certain area. Other application areas may also be considered.

As part of the JavaCam project a virtual camera has been built in the form of Java software together with a standard webcam. The final hardware version of the camera will use an FPGA interface in which a number of low-level functions will be implemented, mainly to improve the processing speed.

The simulation environment is written in Java and is based on the hardware platform that will be used. Several functions have already been implemented as part of the Intelligent Sensor Network project. New options will include counting of people and determining the direction in which people or vehicles are moving in the image.

There is also the option for a completely different application of the Java Camera, namely determining the centre of the trunk of a white or red cabbage. When processing such cabbages, the trunk needs to be removed with a drill and positioning the cabbage is now done manually. When this position can be determined automatically a robot drill may be built that can take over this job. Part of such a system has been developed but is not completed by previous student groups.

By Peter van Lith – 22 Dec 2004

For additional questions and available documentation, please Peter van Lith, peter@lithp.nl. For some backgrounds look at www.multimotions.com