

Compiling april_tags.cpp with eclipse

- **Add building libraries' paths (if they're not already included):**
 - /home/helena/apriltags
 - /home/helena/apriltags/example
 - /usr/local/include
 - /usr/share/doc
 - /usr/include/eigen3
- **Add shared libraries' names and paths for the linker (-l and -L):**
 - opencv_calib3d
 - opencv_flann
 - opencv_legacy
 - opencv_objdetect
 - opencv_video
 - opencv_contrib
 - opencv_features2d
 - opencv_gpu
 - opencv_ml
 - opencv_core
 - opencv_imgproc
 - opencv_highgui

They're all either in the /usr/include/opencv2 or the /usr/lib folders. I added both of the paths just in case.

- **Include Serial.cpp file in the Compiler C++ (-include)**
- **Some problems might still show up:**
 - wRo_to_euler function might cause errors when the argument wRo(z,y) is used inside another function [NOT SOLVED YET]
 - “<< endl;” generates an error. To solve it just add “cout” in front of it: “cout <<endl;”
 - m_serial.print() function shows up an error when it has got an argument like translation(0) inside and not a string [NOT SOLVED YET, to let the program run put translation(X) between “”]
 - If the webcam of your computer is not working, go to Run Configurations, in your project's tab, select Environment. If there are no Variables for the camera, make a new one with its value set to “0.0”.
- **Other observations**
 - When running the example with Eclipse, the Hamming distance is always smaller than 3. When running the example with the command terminal, it happens the same.

Cross compiling april tags with eclipse for BBB

- Copy the project for the Eclipse's compilation in the same workspace
- Go to Project → Properties → In the C/C++ Build Tab, select the Tool Chain option selected
- The list of Used Tools should be the one's without “Cross” before any tool
- Change Current toolchain to Cross GCC
- Change all the Commands in the Compilers, the Linker and the Assembler for the arm processor as explained in Eclipse Cross Compile Beaglebone.pdf
- Include the building libraries again (when we copy the project they don't come with it)
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