

Readme

1. Hardware Requirements:

Microsoft Xbox Kinect v2.0, Windows Laptop.

2. Software requirements:

- Visual Studio 2013
- OpenCV 3.10

3. Edit the "OpenCV 3.1.0 64-bit" xml file: Change the path in these lines.

```
<AdditionalLibraryDirectories>$(OPENCV)\build\x64\vc12\lib;%(AdditionalLibraryDirectories)</AdditionalLibraryDirectories>
```

```
<AdditionalDependencies>opencv_world310.lib;%(AdditionalDependencies)</AdditionalDependencies>
```

4. Compiling Kinect and Windows Code

- Open the "Gesture" VC++ Project provided in folder Gesture.
- Go to View -> Other Windows -> Property Manager. Select "Add Existing Property Sheet" and add the xml you just edited.
- Go to Project -> Properties
- In Configuration Properties, go to VC++ Directories.
- In the "Include Directories" and "Library Directories", add the path of your OpenCV 3.1.0 "Include" and "Lib" directories.
- Go to Linker -> Input. In Additional Dependencies, in the empty dialog box paste these lines:

```
opencv_world310.lib  
Kinect20.lib  
Kinect20.Face.lib  
Kinect20.Fusion.lib  
Kinect20.VisualGestureBuilder.lib  
kernel32.lib  
user32.lib  
gdi32.lib  
winspool.lib  
comdlg32.lib  
advapi32.lib  
shell32.lib  
ole32.lib  
oleaut32.lib
```

uuid.lib
odbc32.lib
odbccp32.lib
ws2_32.lib

Make sure to uncheck "Inherit from parent or project defaults"

- Press Ok. Save the project using Ctrl + S.
- Go to Build -> Build Gesture. The project should get built without any errors.
- Press F5 to run the project.

5. Compiling Gumstix Code.

- Compile the motor driver code m_driver.c using Makefile. Just type make.
- Make sure you do /ad/eng/courses/ec/ec535/bashrc_ec535 before doing a make.
- For the Bluetooth code b.c, compile by typing:
arm-linux-gcc b.c -o b -lblueooth

You should see few windows pop up. One of them would be feeding camera's input. Just ignore all this. You are good to go.