

LAB 2_Part 2

1 Target:

Using video output and input on the embedded system with camera.

2 Demonstration:

2.1 Show camera stream on the embedded screen. (6%)

2.2 Meet **Note 3.2** requirement. (7%)

2.3 Finish advance. (20%)

2.4 Upload your source code to E3.

3 Notes:

3.1 There are no instructions in this lab, you should be able to do this by modifying the work you have done.

3.2 The video should not be stretched. **You must leave blanks on two sides.** (4:3 can do the job)

4 Hints:

4.1 If you are going to use OpenCV, the compilation command would be almost the same as the instructions in the last lab.

5 Advance:

5.1 While reading the video input stream, capture and save the video frame to the SD card when pressing “c” (without “enter”). It should capture and save multiple images after pressing multiples times “c”, saved images should not be overwritten. The image format is not restricted.

- Your screenshot will work. (5%)

- Screenshot should be saved in a directory name “screenshot” in SD card. (5%)

- Performance: You will get full points if your video has no delay when taking screenshots. (5%)

5.2 After bootup, start to recording the input stream to a video file automatically. The video format is not restricted and save it to directory “screenshot” in SD card.

- Start recording after log in. (5%)