

Meeting Minutes – Oct. 17th 2013

Demonstrated Open CV stuff

- Threshold currently set at 90 out of 255 – still works
- Fewer artifacts if we raise foreground threshold
- Integrate SSLAR2 as the camera now
 - Currently set at 10-20 frames per second

Talk about SSLAR registers

- One register that turns on look ahead functionality
- One register for variable frame rates
 - Do you have a dynamic frame rate on the SSLAR2?
 - Can run the ADC very fast yet save power
 - Will we lose all the definition with the SSLAR design of this chip
 - Lose about 3-5% of an error depending on step range
 - Can completely turn off SSLAR
 - Step size does not change dynamically

Demonstrated Website

Pixel Array design

- will be 3.2 -16 um
- Each zone will be 16 meter far away (300m)
 - 1 m up close
- Math is still a little fuzzy
- Almost 250x the trapezoidal resizing
- Certain smallest pixel size we can fab
- Certain size of chip – 10 mm²
- 15mmx0.1mm (long and skinny if we want)
- Is there anybody at the university that does optics
 - Maybe steal somebody from the university (bergman)
- Dr. Donohoe in the CS department may be able to help a little
- As the cars are off to the side of the focal point of the lens, we will see fish eye-ing and blurring
- The SSLAR2 3.2um pixel is already designed in schematic
- Just need to put in the pixel size and perform post layout simulation
- Already got the code for fabrication
- Maybe reduce the size of the pixels per lane

Did go out and take some footage straight down the road

Use open CV to set SSLAR2 up and start taking data with it.