Embedded System Lab Final Project: Chroma Key

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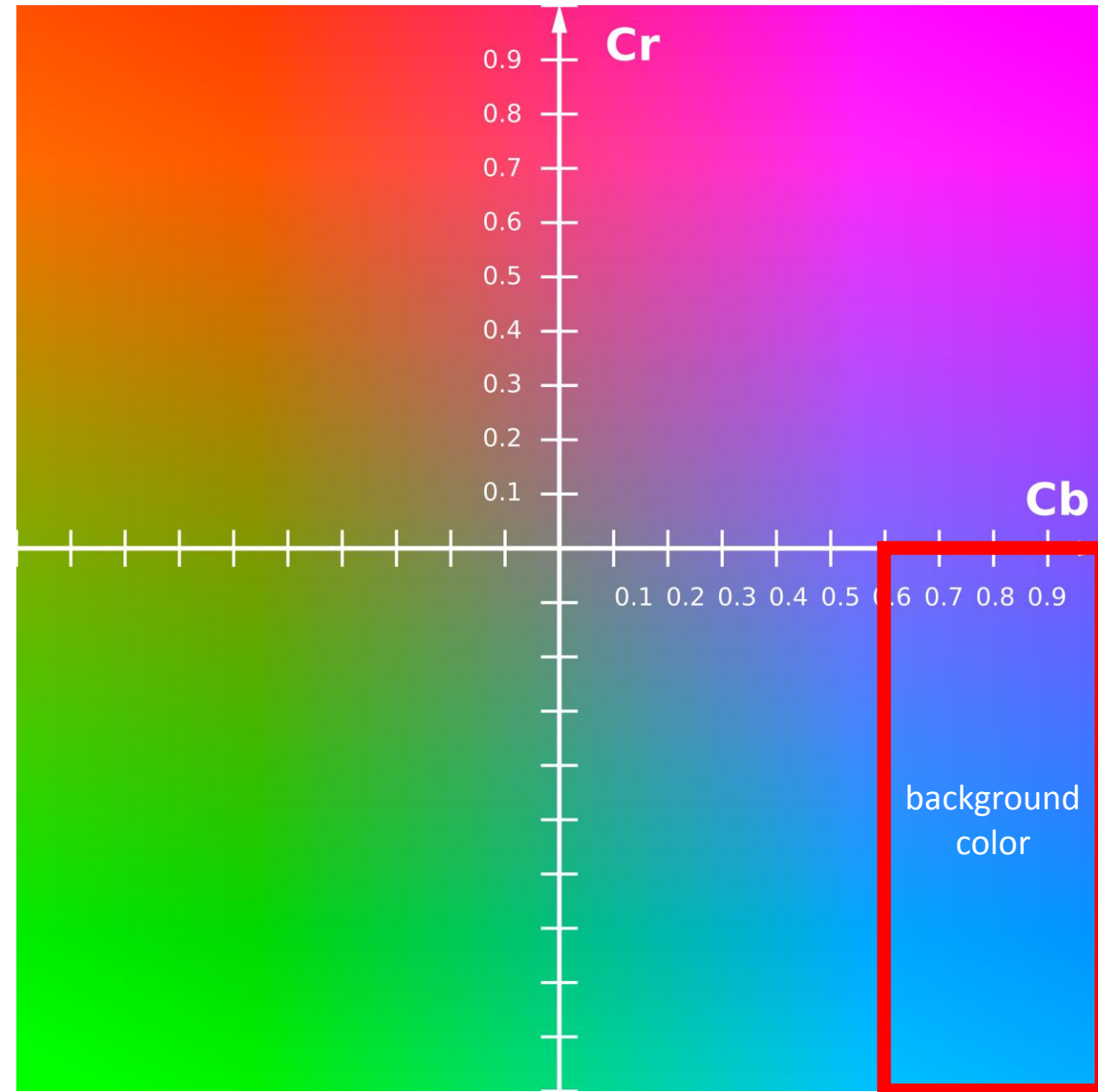Le Chi Hieu (黎志孝) – 0450214

Chroma Key [1/2]

Chroma Key [2/2]

- A visual effects technique for compositing (layering) two images or video streams together based on color hues (chroma range)
- Used heavily in many fields to remove a background from the subject of a photo or video – particularly the newscasting, motion picture and videogame industries
- Commonly used in video production and post-production
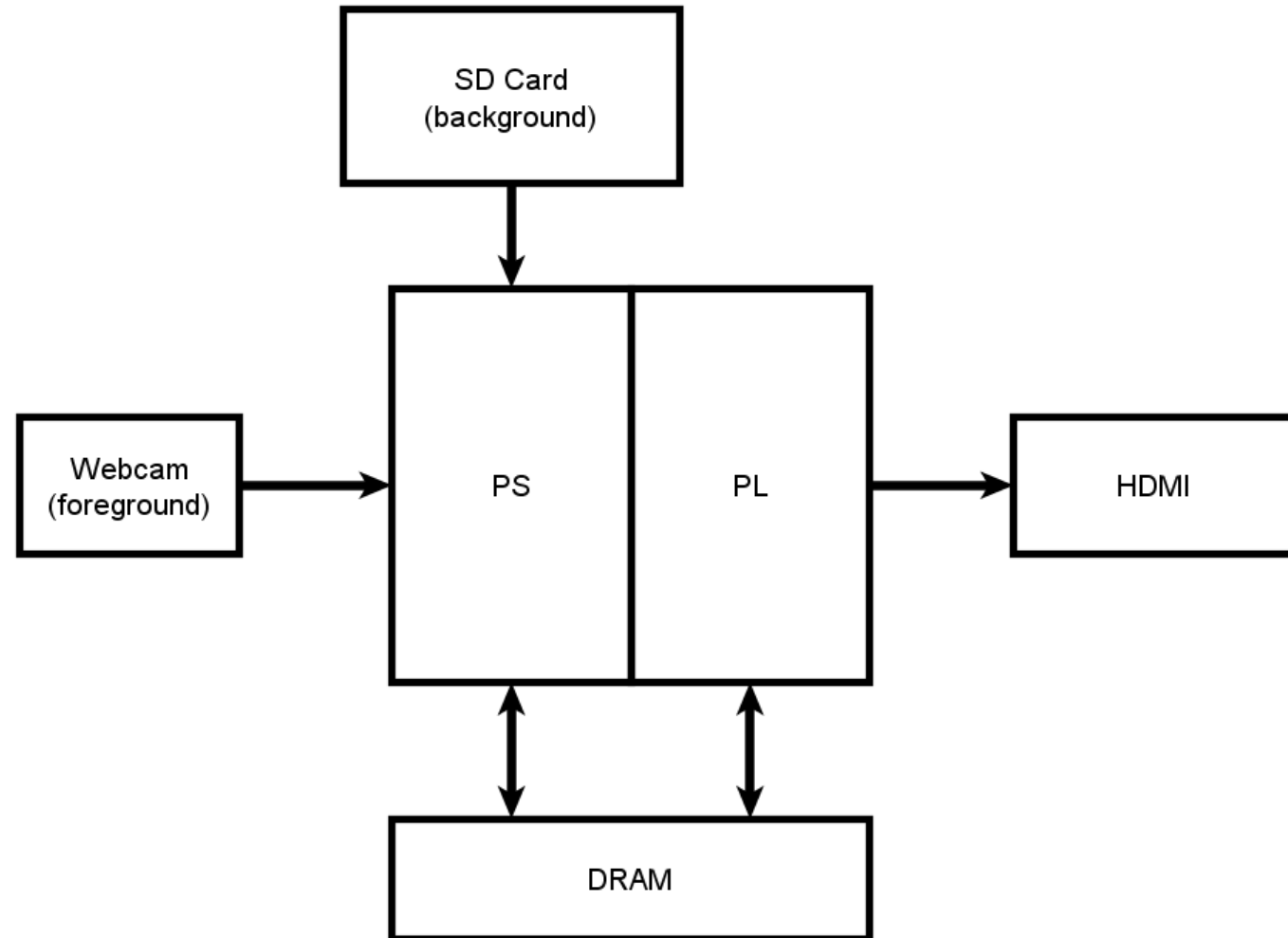- There are two types of backdrop: green and blue

Targets

- Implement chroma key on Zed board
- Realtime processing with webcam and display to monitor
  - Take the video from webcam
  - Process the video and insert the background
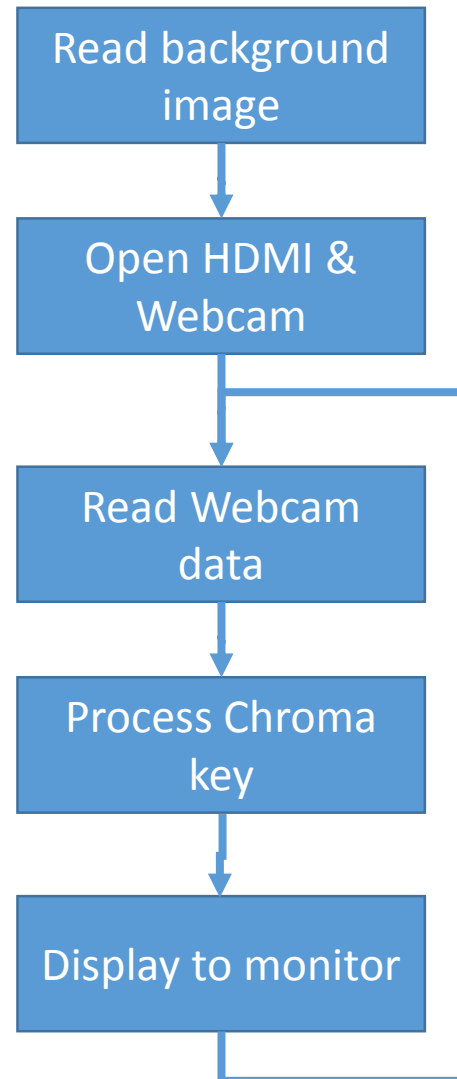 - Display to HDMI

Algorithms

- Color space segmentation: use color space and threshold to detect background and foreground
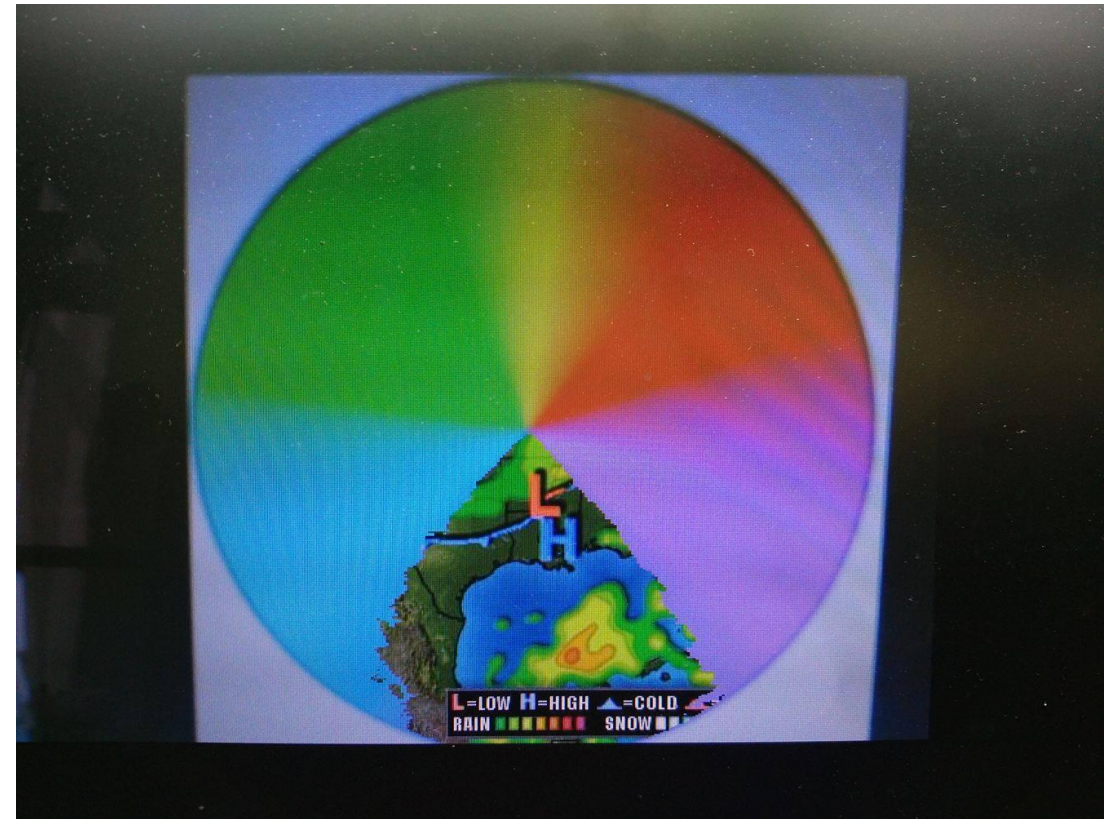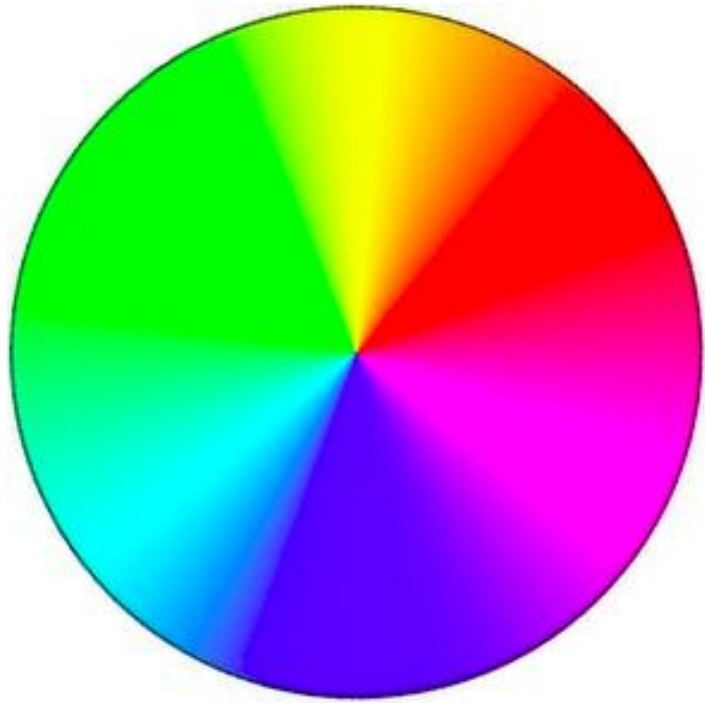- The selected part is based on experiment

Solutions [1/2]

Solutions [1/2]

Experimental Result

Conclusions

- The algorithm works as expected
- There are minor issues due to the simplicity of the algorithm
- Blue key is easier to implement than green key
- Luminance still have some effects to the Chroma-Key