Focus is on the video processing:
- Camera
- VGA

1) Required functions:
- Brightness, at least 16 steps
- Contrast, " " "
- Cursor for a useful purpose
- grayscale
- Gaussian blur w/ convolutional 2D filter
  - variable radius
  - Image stabilization
  - SAO

2) Open-ended - you choose (term)

Ideas:
- Other conv. filters
  - High pass
- edge detection
- motion detection
- clever visualization method to highlight features in video
- "green screen"
- cartoon effect

Schedule

Week 1-3
Design
Golden Reference (matlab)

Week 3
Mile stone 1

Weekly 2-9
HW design
Debugging
Simulations
Redline work

Week 6
Mile stone 2

Week 10
Report
Presentation and Demo
- HW
  - Algorithm
  - HW architecture
  - implementation
  - simulation, test bench
  - multiple versions (2+)
    - v1 = finish asap
  - SW
- report
- bi-weekly updates
- Points
  * Functionality
  * Features
  * Perf points
    * Accuracy
    * Throughput
    * Max clock rate
    * Latency
  + Design complexity - not lines of code!
  + Design complexity