Line Camera

Task 0: Init

1. Create new project with ADC and PIT drivers

Task 1: ADC setup

1. Initialize ADC peripheral to 12-bit
2. Route PTB5 pin to ADC1

Task 2: PIT setup

1. Initialize PIT peripheral to 60MHz clock

Task 3: Implement helper functions

1. Implement function reading ADC value
2. Implement function for delay in microseconds
3. If needed, use helpers.cpp

Task 4: Load one frame from camera

1. Check datasheet and manual
2. Create pulse on SI pin (PTB19) and produce clock signal on CLK pin (PTB18)
3. Read ADC value according to the datasheet
4. Return 128 values read from ADC

Task 5: Show data from camera

1. Read one frame and discard it
2. Wait exposition time (preferred 5000us)
3. Read another frame and print it

Notes

- Required functions for solution are in solution.cpp
- Whole project is stored in solution.zip
- Visualization script is visualize.py


That's all Folks!