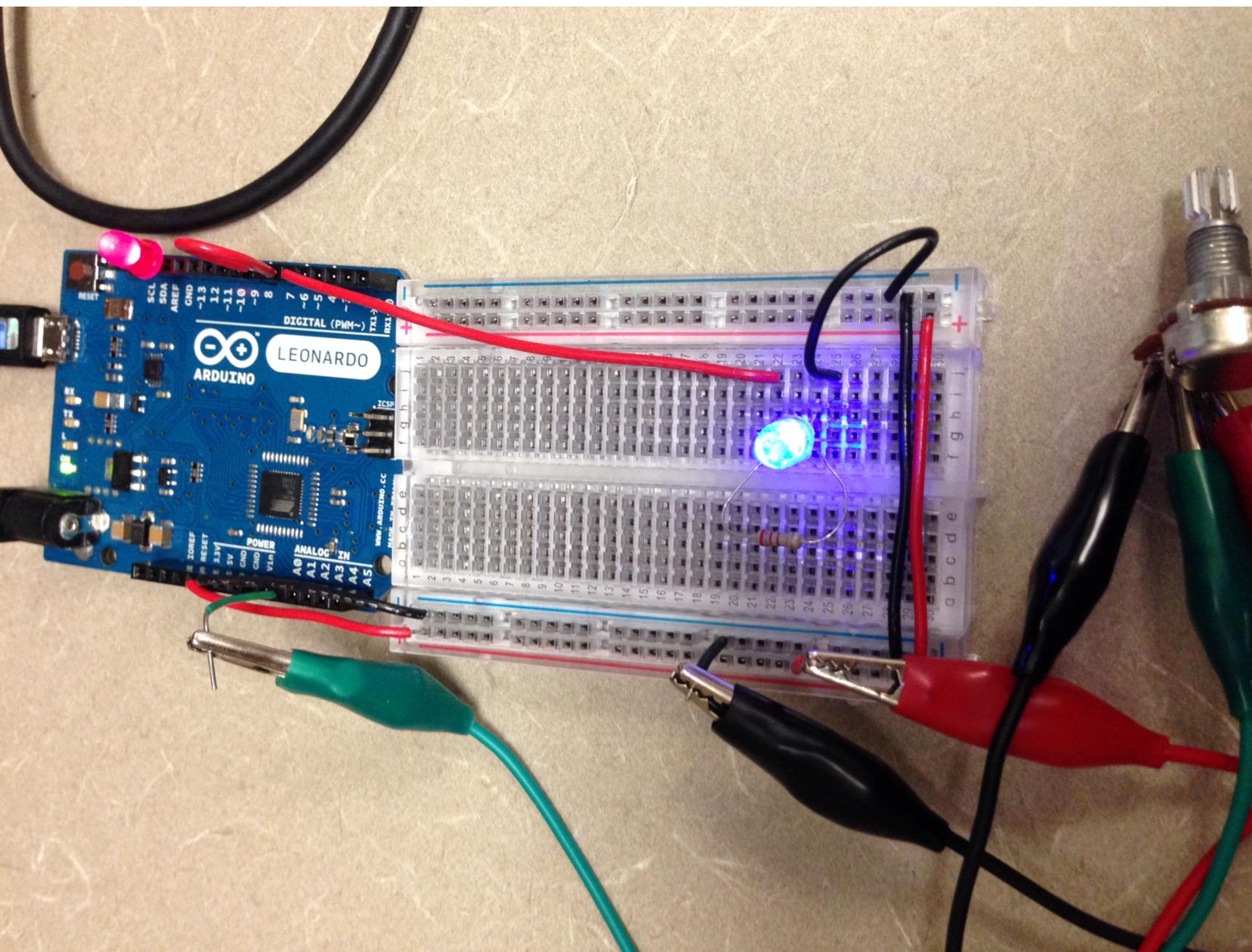


Serial Viz

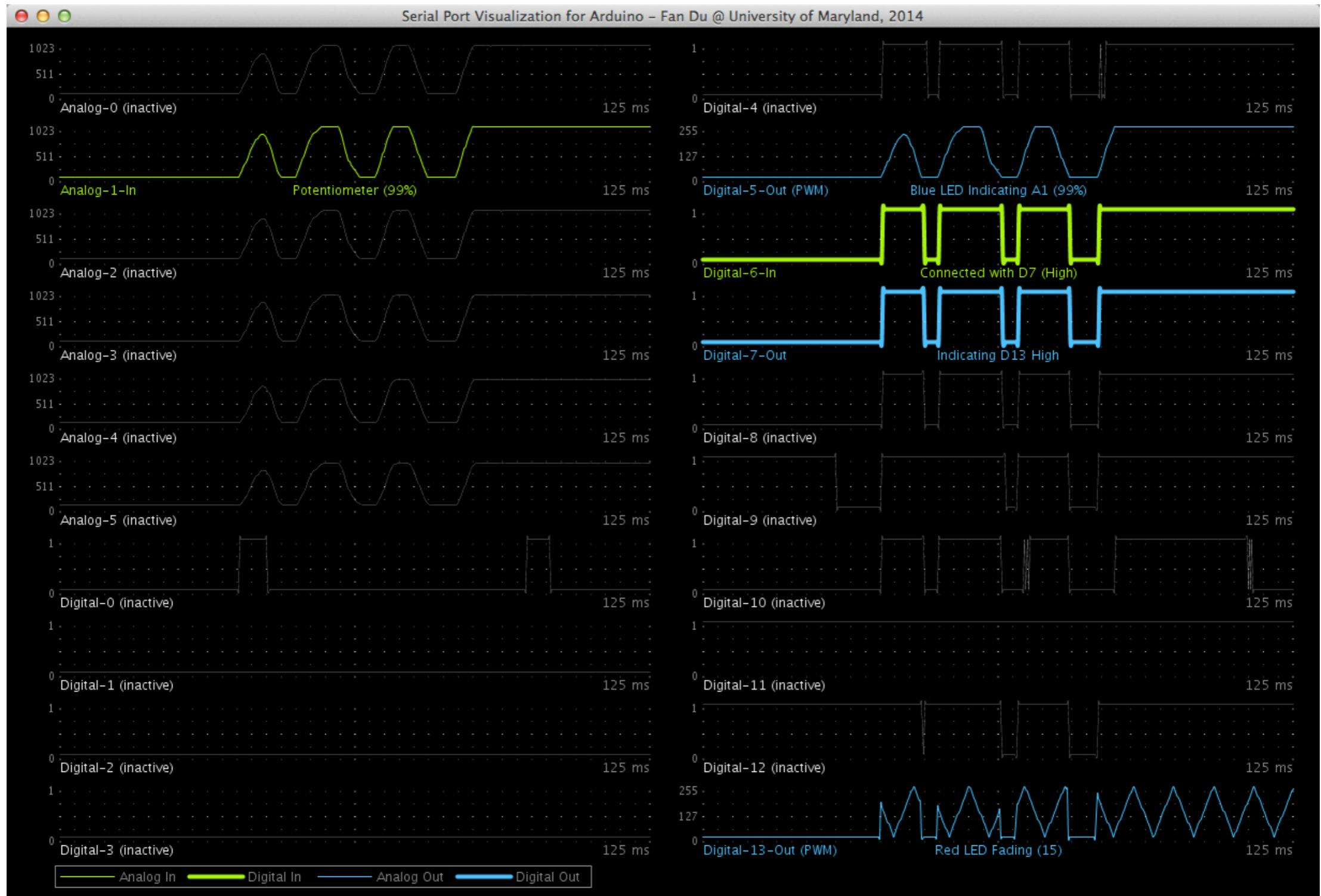
Fan Du @ 838F

Feb. 12

Result - Arduino



Results - Processing



Protocol - Arduino

- Real time streaming data 20 pins
- Output to serial port every 10 ms

val@msg, val@msg, ..., val@msg;

671@Potentiometer (6%),

The message

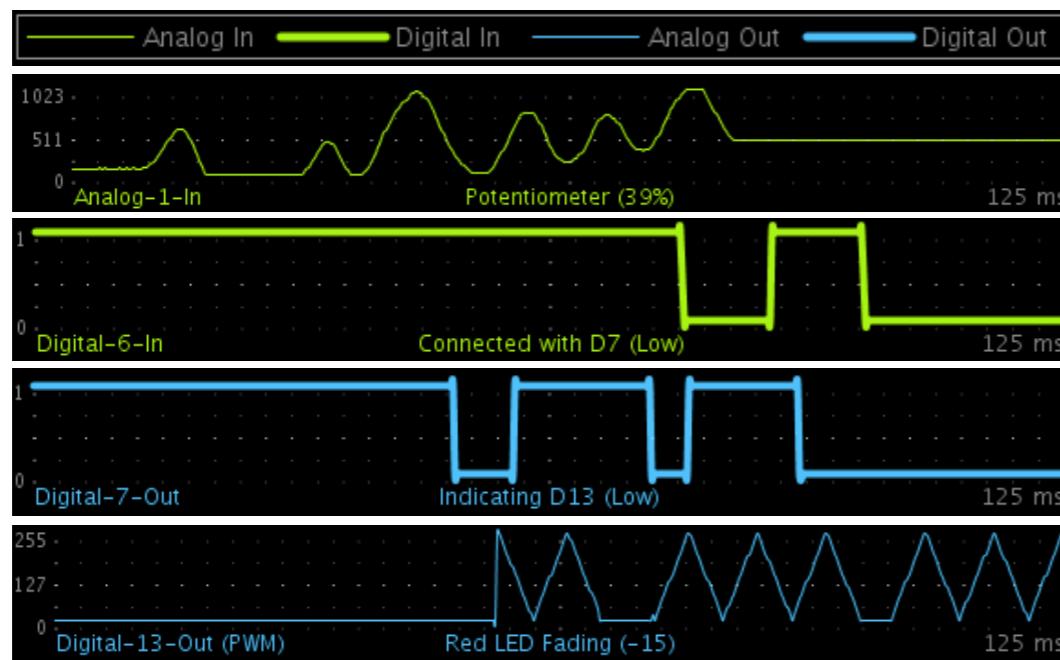
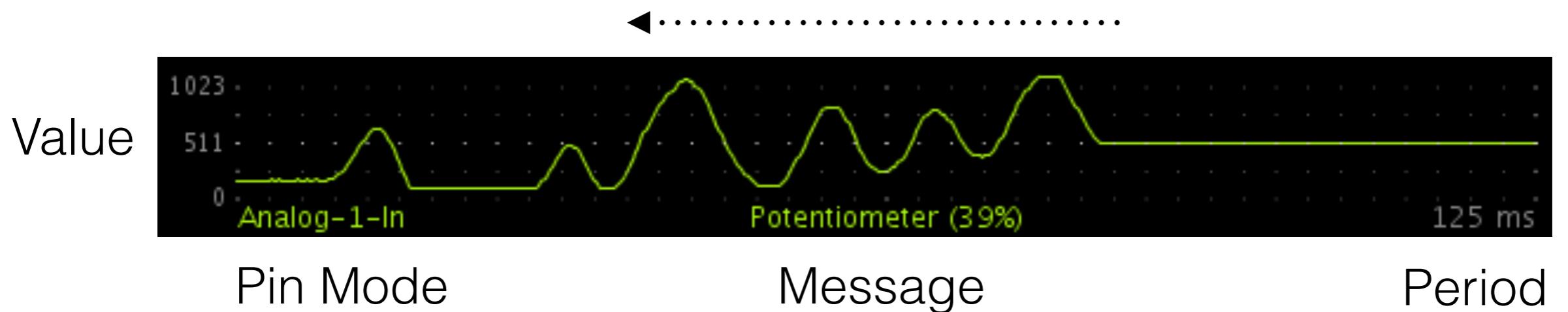
The value is 67, and the pin mode is 1 (analog in)

- The last 1 digit of val encodes the pin mode
- 0 - *in active*, 1 - *analog in*, 2 - *digital in*, 3 - *analog out*, 4 - *digital out*

Protocol - Processing

- Multi Threads
 - one thread for reading data from the serial port
 - another for drawing the graph (which is much slower than reading ports)
- Robust
 - if a broken / incomplete line comes in, skip it
- Highlighting
 - show data streams of all 20 pins - get an **overview** of what is happening
 - highlight the active ones - **focus** on what is interesting

Visual Design



- Color encoding **IN / OUT**
- Thickness for **DIGITAL / ANALOG**