iSynth

The Quest for a "Better" Music Synthesizer

Part VI :

Scope & Status

Actors

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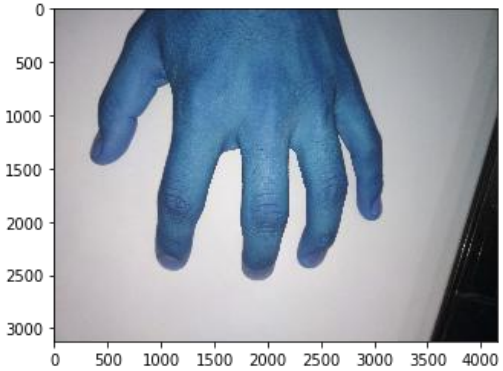
Scope

- 2 tracks in parallel :
  - Image processing algorithm to detect which key was pressed via the camera
  - Taming the Myosensor & syncing its output with PyFluidSynth using the standard computer keyboard
- Performance aspect (speed of response & multiple keypresses) shall not be addressed for now
- If either / both tracks bear fruit, the same shall be presented for the final demo

Answering previous Q's....

- Sampling rate :
  - Sampling rate depends on the measurement H/W, not the sensor (*From the Myoware manufacturer's website)*
  - For a 16 MHz Arduino the ADC clock is set to 16 MHz/128 = 125 KHz. Each conversion in AVR takes 13 ADC clocks so 125 KHz /13 = 9615 Hz.
  - Serial port baud rate also matters - needs experimentation
  - Need to check software latencies also - needs experimentation

Status -I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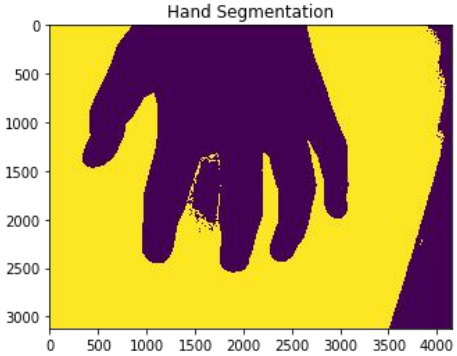
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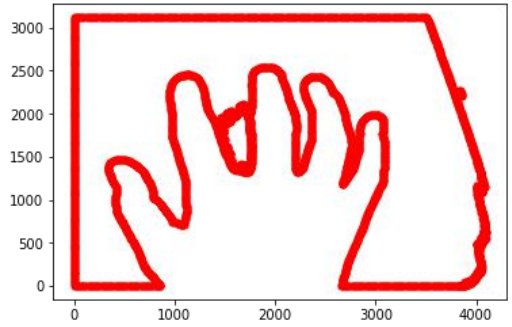
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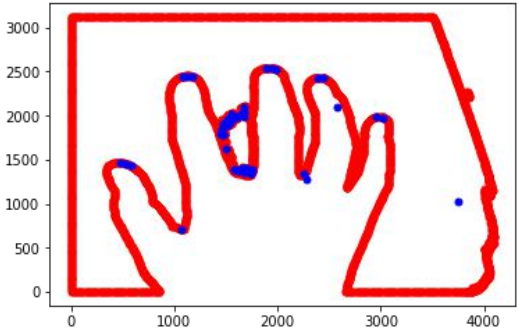
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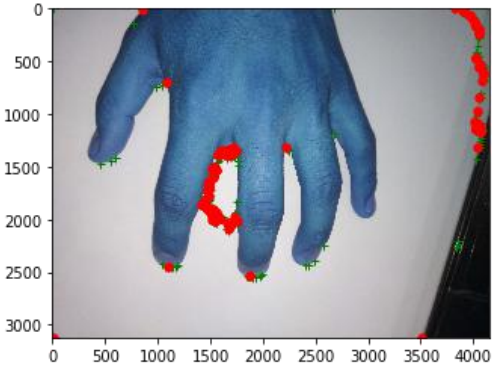
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Status -II

- Myoware muscle sensor received & successfully interfaced with Arduino Uno MC
  - <Myoware muscle sensor demo...>
- Created a 1:30mins audio track with PyFluidSynth & Audacity
  - <Audio clip demo...>

Thanks!

Any questions?

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