**C9 – Analogue Input**

3.1 Measuring Voltages

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| Full range from 0x0 to 0x3ff can be seen (full 10 bit range). |
| Vmin = 1.68545V  Vmax = 1.68867V  Log 2 (3.3 / (1.68867 - 1.6854))  = 10.001 |

3.2 Building a Proximity Detector

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| Threshold for detect = 2.8V  2.8/3.3 \* 1024 = 868 (adc value) |
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3.3 Measuring your Heart Rate

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| It was hard to view the pulses on the oscilliscope since the Bitscope software only allows 100ms per division which is not enough to see multiple pulses and measure the time between them. |