**A2**

**Abstract:**

Our project will be a musical instrument which takes input from the user using a number of analog input devices and produces an output of the sound of a violin and drums depending on which analog device the user interacts with. There will be a rotary potentiometer which the user can turn to speed up or slow down the sound of a drum beat which provides the “base beat”. There will be 2 force-sensing resistors each of which will play <a note/a loop of a few notes> and if the 2 force-sensing resistors are pressed together it will play a different <note/ loop of notes>.

References:

* <http://theatticlight.net/posts/Reading-a-Rotary-Encoder-from-a-Raspberry-Pi/>
* <http://www.allaboutcircuits.com/projects/building-raspberry-pi-controllers-part-5-reading-analog-data-with-an-rpi/>
* <http://www.hertaville.com/interfacing-an-spi-adc-mcp3008-chip-to-the-raspberry-pi-using-c.html>
* <http://drumslive.com/dir/free-loops/>
* <https://www.youtube.com/watch?v=sUZZAhVIvEU>
* <https://hg.python.org/cpython/file/3.6/Lib/wave.py>