A-level Coursework

# Analysis

## Background

### Introduction

A problem that is currently facing my school, and more specifically the music department, is that they lack a sufficient number of students to make best use of the equipment and the talent that can be found.

My aim for this coursework is to design a system that will automate the playing of instruments in a novel way so that talented students can focus on playing other instruments that they prefer and not have the sound of the group suffer.

In this example I will be automating the playing of the tin whistle. I chose this instrument because, whilst it is not a difficult instrument to learn to play, it is also not the most impressive instrument. This will allow the students to play instruments that they maybe enjoy playing more, or that are more challenging and are therefore more rewarding.

### Current System

The current system would be using a midi player and a set of speakers. This system works well, however, the sound that you get from a MIDI synth is not comparable to the sound of the real instrument. Using a MIDI synth in this way can, depending on the current software available to the school, can be quite complex.

### Clients, Users, and audience

The clients of the system will be the teachers in the music department.

The users of the system will be the teachers in the music department and also the students in the music department.

The audience will be the audience at any performances that may be performed using my system.

### Business case for change

### Overview of requirements

The system that I design must be able to:

* Easily import MIDI files that have been downloaded or made by the music students
* Easily select what track should be played by the

## Analysis of the Problem

### Contstraints and limitations

### Scope of the problem

## Objectives

### SMART objectives & evaluation criteria

## Appendix

### Notes from interviews

# Documented Design

# Technical Solution

# Testing

# Evaluation