

Guitar Multi-Effects

Project Release Plan

Malcolm Flint

Chris Burke

Eddy Chavez

Nima Shariat (first ScrumMaster)

OVERVIEW

- Guitar effects pedals are really expensive and single use.
- High level goals:
 1. Enable a guitarist to use a raspberry pi powered digital effects pedal, controlled by midi
 2. Open source the project so that others may do the same

SPRINT 1

- As a Developer, I want to be familiar with the technologies we will be using (Infrastructure)
- As a guitarist, I want an affordable piece of hardware as my audio engine
- As a Developer, I want to be able to collaborate (Infrastructure/goal 2)
- As a product owner, I want to be able to see a clear description of the product (Infrastructure)
- As a product owner, I want to see a well thought out plan for achieving the product (Infrastructure)

SPRINT 2

- As a guitarist, I would like an assortment of effects including:

Delay	Compression	Envelope
Reverb	Distortion	Volume Expr
Octave	Wah	Looper

- As a guitarist, I would like to be able to control these effects with just my feet.

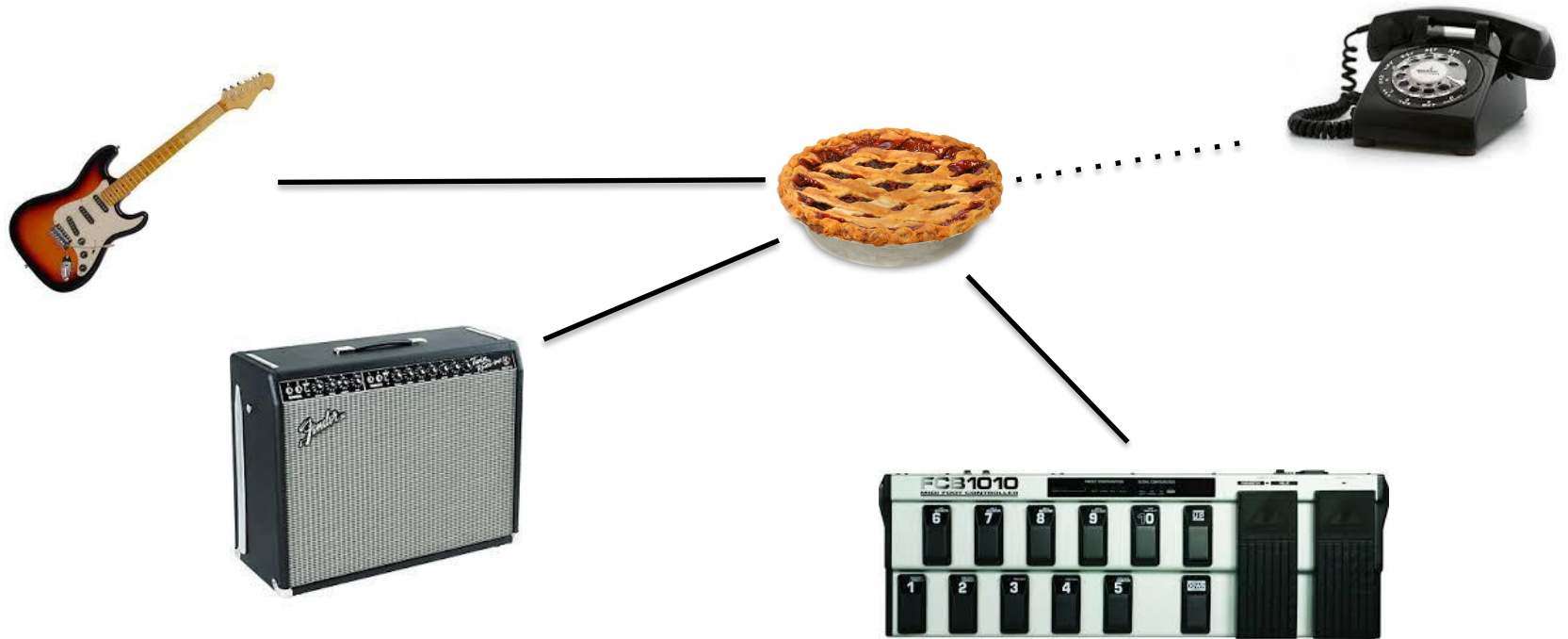
SPRINT 3

- As a guitarist, I would like to be able to customize the parameters of effects
- As a guitarist, I would like to be able to use my phone to control these parameters
- As a DIY enthusiast, I would like to have a set of instructions so that I can try to build my own version of this

SPRINT 4

- As a guitarist, I would like to be able to change the order of effects on the pedal
- As a guitarist, I would like to work with a nice UI

ARCHITECTURE



GUITAR EFFECTS BOARD

PROJECT RELEASE PLAN

RISKS & CHALLENGES

- Unfamiliar Technologies
 - PureData
 - Luckily it is an easy, visual programming language (however, this could make collaboration/version control more difficult)
 - Bluetooth
 - The Raspberry pi

RISKS & CHALLENGES

- Too many/Too complex features
 - The minimum that would be good to do would be up to the end of the planned sprint 2. After sprint 1 we will re evaluate and see if we have time to connect to an app.

TECH STACK

- *PureData*: A visual programming language for audio processing
- *Midi*: a communication system for digital audio devices
- *Juce*: A library for C++ that could be used to build the app (easily portable between devices), provided we get that far.