DJ Ascentia Endorsements Proposal

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# Background and Scope

DJ Ascentia has been approached by two companies looking to endorse their products. Both companies have stated that they will only accept an exclusive deal. Therefore, this report will evaluate the time, effort and resources needed to bring each product to market and be of most benefit to DJ Ascentia.

The Products being evaluated are:

* ARMband, by Band of Bros
  + This product is based on the Zynthian open-source product (Zynthian, 2025), but using a new 4-in, 4-out AD/DA card.
* Runi, by The Runes
  + This product is based on Lua (Lerusalimschy, Celes and Henrique de Figueiredo, 2024) and the Supercollider engine(McCartney, 2023), but ported into the affordable RISC-V development board (StarFive, no date).

# Requirements

Detailed requirements in the form of Gherkin statements (Aslak Hellesøy *et al.*, 2025) are in Appendix 1. They can be summarised as the following Features:

### ARMband

* Driver Compatibility
* Hardware Validation
* UI branding
* VST integration
* Cost-effective pricing

### Runi

* Hardware Compatibility
* Custom Sound Driver
* User Friendly Interface
* Open-Source Contributions
* Self-Assembly kit

# Project Methodology

There are several project methodologies that can be followed to bring these products to market (Hughes, 2019).

ARMband would benefit from an Agile/Iterative approach. This will allow the flexibility to allow the small, dedicated development team to quickly adapt while taking full advantage of community contributions.

Runi, on the other hand, will benefit from a hybrid Waterfall-Agile approach. There is still some hardware development required, which will benefit from the structured linear approach to development. Once the Supercollider and Lua engines have been ported, then an iterative approach can be used to combine the community development of scripts.

Work Packages will be produced in ProjectLibre (O’Brien and Chrettienau, 2021) and this will be used to calculate time and resources, as well as provide a Work Breakdown Structure.

# Work Breakdown Structure

## ARMBand

Given ARMband lends itself to an Agile style of development, many work packages can be run in parallel. The work packages identified for ARMBand are:

1. Software Development
   1. Develop Linux-compatible Driver
   2. Rebrand UI
   3. License and Port Shareware Applications (VST’s)
2. Product Assembly and Testing
   1. Create a fully built product
   2. Testing and Warranty set-up
3. Project Management and Oversight
4. Financial & Business Strategy

Details are found in “Appendix 2: WBS ARMBand”

## Runi

Given the hybrid methodology for the Runi project, the project is split into two phases. The first phase focuses on hardware development and will follow a traditional waterfall project structure with key milestones, while the second phase will follow an agile methodology with several sprints. Each milestone and sprint have been designed to be four weeks long, giving time-bound goals to achieve.

Within the Hardware development phase, three key milestones have been identified:

1. Hardware and OS set-up
2. Porting key software
3. Prototype testing

For the software development, there will be four key sprints with the following goals:

1. UI and wireframe design
2. UI & core software development
3. User testing and debugging
4. Finalisation and release

Details can be found in “Appendix 3: WBS Runi”.

# Resource requirements

## ARMBand

While ARMBand can be developed using an Agile approach, with many work packages running in parallel, this does increase the workload for each work package, and multiple developers and test analysts will need to be hired.

All details can be found in “Appendix 4: ARMBand Resource usage”.

Running multiple work packages in parallel allows the project to be completed in twelve weeks.

## Runi

Whilst the majority of the development and testing for the Runi will be performed by the community, the project will require oversight, and if the company wish to provide a warranty, then documented testing will be required. Therefore, it is recommended that a Test Manager, Architect and Analyst are hired, as well as a Solutions Architect, to ensure the integration of all community-developed components. The total breakdown of resource allocation and tasks is shown in the ProjectLibre report in “Appendix 5: Runi Task Usage”.

It should be noted that to avoid double-counting resource usage or over-assigning tasks to individuals, tasks have been “front-loaded” and “back-loaded” to show when their focus will be on particular tasks.

Additionally, there is a period of testing when a total of three test analysts will be required.

The combined Waterfall/iterative method means some work packages must be complete before others can start. The result is that the project timeframe is increased to 20 weeks or approximately five months.

# Financial Appraisal

## ARMBand

The total cost to bring ARMBand to market is £148,718.75 plus manufacture costs. Without the support of DJ Ascentia, Band of Bros will make a loss in year one, however, if projected sales are correct, they will be in profit by year two and look to make over £100k per year.

With DJ Ascentia’s endorsement, the additional sales will provide a gross profit of £43,281.25, however, even with a 15% commission, minus the initial £10,000 investment, DJ Ascentia will still be £3.5k out of pocket. It is not until year two that DJ Ascentia will have almost doubled their investment.

## Runi

The total project costs to bring the product to market are £162,645.50 plus manufacturing costs. Without the support of DJ Ascentia, The Runes can look to make a year 1 profit of £67,354.50 and £230,000 each year thereafter.

The additional revenue from sales generated by DJ Ascentia will result in a gross profit of £372104.50 in year one and £534,750 for each year thereafter. Taking a commission of 7%, after five years, DJ Ascentia would have made £175,777.32 from this endorsement deal.

A detailed breakdown of five-year costs is shown in “Appendix 6: Financial breakdown”

# Conclusion

DJ Ascentia has indicated they would like to begin endorsing a product as soon as possible. For this reason, ARMBand by Band of Bros would satisfy the client's wishes as the project will take approximately half the time of Runi by the Runes.

However, given ARMBand will not be as profitable, Runi will provide a greater financial return. Therefore, endorsing Runi by The Runes is the recommended option for DJ Ascentia because:

1. Lower risk: No upfront investment is required
2. Higher Profitability: The cumulative commission over five years is higher than ARMBand
3. Stronger Brand Performance: The Runes are already profitable without DJ Ascentia, and their profits increase dramatically with endorsement, making it a more attractive partnership.

# References

Aslak Hellesøy *et al.* (2025) ‘Cucumber’. Available at: github.com/cucumber/cucumber-ruby (Accessed: 15 February 2025).

Hughes, B. (ed.) (2019) *Project management for IT-related projects*. Third edition. Swindon, UK: BCS Learning and Development.

Lerusalimschy, R., Celes, W. and Henrique de Figueiredo, L. (2024) ‘Lua’. Available at: lua.org (Accessed: 13 February 2025).

McCartney, J. (2023) ‘SuperCollider’. Available at: supercollider.github.io (Accessed: 13 February 2025).

O’Brien, M. and Chrettienau, L. (2021) ‘ProjectLibre’. ProjectLibre. Available at: www.projectlibre.com (Accessed: 2 January 2025).

StarFive (no date) *StarFive-boards*. Available at: https://www.starfivetech.com/en/site/boards (Accessed: 15 February 2025).

Zynthian (2025) *Zynthian*. Available at: https://zynthian.org/ (Accessed: 14 February 2025).

# Appendix 1: Gherkin Statements

## ARMband Requirements

Feature: Hardware Development

Scenario: Driver Compatibility

Given ARMband is installed on a Linux system

When the 4-in, 4-out AD/DA card is connected

Then the system should recognise and allow audio input/output through the card

Scenario: Hardware Validation

Given Power is supplied to the ARMband device,

When the AD/DA card is used for recording and playback,

Then the audio quality should meet professional standards without distortion

Feature: Software Development

Scenario: UI Rebranding

Given the ARMband is operated as designed

When a user navigates the UI

Then the interface should be distinct from Zynthian

Scenario: VST integration

Given ARMband will include shareware VST effects and instruments,

When these options are selected,

Then they should operate seamlessly

Scenario: Price and Value Differentiation

Given ARMband is a cost-effective alternative to Zynthian

When it is sold for £400

Then this should include assembly, testing, warranty and quality equal to or better than Zynthian.

## Runi Requirements

Feature: Hardware Compatibility

Scenario: Porting Supercollider and Lua to Runi

Given Runi is based on RISC-V board

When a user runs a Lua script,

Then it should run without error

Feature: Custom Sound Driver

Scenario: Sound playback on Runi

Given the Runi system is running

When the user plays an audio file

Then the sound should output correctly with no distortion

Feature: User Friendly Interface

Scenario: Navigating Runi UI

Given the user powers on the Runi device

When they interact with the UI

Then they should be able to access all features easily.

Feature: Open-Source Contributions

Scenario: Submitting and merging a driver update

Given a community development submits a patch

When the patch is reviewed and tested

Then it should integrate seamlessly into the system

Feature: Self-Assembly Kit

Scenario: Assembly of the Runi kit

Given the user follows the provided instructions

When they assemble the case and connect components

Then the system should function correctly.

# Appendix 2: WBS ARMBand

A table of data with numbers

AI-generated content may be incorrect.

Figure : Work Packages and tasks for ARMBand

A diagram of a company

AI-generated content may be incorrect.

Figure : WBS Diagram for ARMBand

A screenshot of a computer

AI-generated content may be incorrect.

Figure : Gantt chart for ARMBand

A diagram of a company

AI-generated content may be incorrect.

Figure : Project Network for ARMBand

# Appendix 3: WBS Runi

A screenshot of a computer

AI-generated content may be incorrect.

Figure : Work Packages and tasks for Runi

A diagram of a computer program

AI-generated content may be incorrect.

Figure : WBS diagram for Runi

A diagram with multiple colored lines

AI-generated content may be incorrect.

Figure : Gantt chart for Runi

A diagram of a computer program

AI-generated content may be incorrect.

Figure : Project Network for Runi

# Appendix 4: ARMBand Resource usage

A screenshot of a project management

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# A screenshot of a project AI-generated content may be incorrect.A screenshot of a computer AI-generated content may be incorrect.

# Appendix 5: Runi Task Usage

A project management chart with text

AI-generated content may be incorrect.

A screenshot of a project

AI-generated content may be incorrect.A screenshot of a computer program

AI-generated content may be incorrect.A screenshot of a computer

AI-generated content may be incorrect.

# Appendix 6: Financial breakdown

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ARMBand | Year 1 | Year2 | Year3 | Year 4 | Year 5 |
| Set-up Costs | £148,719 | £43,281.25 | 0 | 0 | 0 |
| Manufacture costs (No DJ) | £217,600 | £217,600 | £217,600 | £217,600 | £217,600 |
| Manufacture costs (DJ) | £408,000 | £408,000 | £408,000 | £408,000 | £408,000 |
| Income (No DJ) | £320,000.00 | £320,000.00 | £320,000.00 | £320,000.00 | £320,000.00 |
| Income (DJ) | £600,000.00 | £600,000.00 | £600,000.00 | £600,000.00 | £600,000.00 |
| Gross Profit (No DJ) | -£46,318.75 | £59,118.75 | £102,400.00 | £102,400.00 | £102,400.00 |
| Gross Profit (DJ) | £43,281.25 | £148,718.75 | £192,000.00 | £192,000.00 | £192,000.00 |
| Cumulative Commission (15% minus investment) | -£3,507.81 | £18,800.00 | £47,600.00 | £76,400.00 | £105,200.00 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Runi | Year 1 | Year2 | Year3 | Year 4 | Year 5 |
| Set-up Costs | £162,645.50 | 0 | 0 | 0 | 0 |
| Manufacture costs (No DJ) | £120,000 | £120,000 | £120,000 | £120,000 | £120,000 |
| Manufacture costs (DJ) | £257,750 | £257,750 | £257,750 | £257,750 | £257,750 |
| Income (No DJ) | £350,000.00 | £350,000.00 | £350,000.00 | £350,000.00 | £350,000.00 |
| Income (DJ) | £792,500.00 | £792,500.00 | £792,500.00 | £792,500.00 | £792,500.00 |
| Gross Profit (No DJ) | £67,354.50 | £230,000.00 | £230,000.00 | £230,000.00 | £230,000.00 |
| Gross Profit (DJ) | £372,104.50 | £534,750.00 | £534,750.00 | £534,750.00 | £534,750.00 |
| Cumulative Commission (7%) | £26,047.32 | £63,479.82 | £100,912.32 | £138,344.82 | £175,777.32 |