# Accessible Music Interactive User Tool Proposal

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Dear DAISY Music Project Committee,

I would like to submit our joint proposal with Musescore to develop an accessible music interactive user tool with professional Braille music translation features. Below is our project description, timeframe and cost.

## Project Description

Currently, Musescore software has provided most of essential features of a music notation that are required by the DAISY Music Project, except Braille music related features and its full accessibility with screen readers. While, Sao Mai Braille has most of important features of Braille music translation and its Braille music translation module has been successfully ported from Windows platform into both Android and iOS.

Our main objective is to release one custom build of Musescore after 21 months of the implementation, which are fully accessible with screen reading software, supports all essential + desirable features required by the DAISY’s interactive user tool requirements, at least 80% Braille music translation rules of the MBC 2015 covered, 6-key Braille music input, live Braille translation output while editing and exporting to Braille-ready files.

We will have four main tasks in order to achieve the objective as following:

* Task 1: Setting up a development environment + bug-tracking system and code maintenance; designing and developing a framework in collaboration with Musescore development team to flexibly and highly customize Braille music translation options for country-specific options (preferably based on Western music notation).

Task 2: Developing a Braille music translation module to directly convert from Musescore data to Braille; porting MusicXML Braille translation module of Sao Mai Braille and connecting with Musescore. MBC 2015 document will be used as the main resource for this development. Using Liblouis library to handle Braille translation of music text elements.

* Task 3: Developing live Braille translation feature while editing notes in Musescore for both computer and MIDI device input methods; exporting to Braille-ready files.

Task 4: Developing the 6-key Braille music input method.

Please note, all related options for the features specified in the DAISY’s interactive user tool requirements are developed in four associated main tasks above. For example: options to toggle translating music elements like ornaments/articulations/technical info etc. will be implemented during the task 2 and 3.

## Timeframe and Costs

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| --- | --- | --- |
| Task | Quarter(s) | Cost (USD) |
| Task 1 | 2 | 19,000 |
| Task 2 | 3 | 28,500 |
| Task 3 | 2 | 19,000 |
| Task 4 | 1 | 9,500 |
| Total | 8 | 76,000 |