# Dancing Nao Robot

Milan Pogadl, 232964 John Doe, John Doe, and Jane Doe,

Abstract—How to analys music to make a robot dance.

## I. INTRODUCTION

THE goal of this project was to make a robot to anything the algrithm can identify as music. We used Essentia for Music Information Retrieval and a predefined set of dancing moves.

September 10, 2019

A. Essentia

Essentia

- 1) Key Frames:
- 2) Dance Generation: Mood

### II. CONCLUSION

It might be even possible with faster Nao CPU to do the music analysis in real time.

# APPENDIX A BEAT DETECTION

Appendix one text goes here.

### ACKNOWLEDGMENT

The authors would like to thank...

#### REFERENCES

- David Moffat, David Ronan, Joshua D. Reiss, *EVALUATION OF AUDIO FEATURE EXTRACTION TOOLBOXES*, Center for Digital Music, Queen Mary University of London, 2015.
- [2] Dmitry Bogdanov, Nicolas Wack, Emilia Gomez, Sankalp Gulati1, Perfecto Herrera, Oscar Mayor, Gerard Roma1, Justin Salamon, Jose Zapata1and Xavier Serra1,

ESSENTIA: AN AUDIO ANALYSIS LIBRARY FOR

MUSICINFORMATION RETRIEVAL,

Music Technology Group,

Universitat Pompeu Fabra, Barcelona, Spain, 2013.

[3] Dmitry Bogdanov,

Music Feature Analysis with Essentia,

Music Technology Group,

Universitat Pompeu Fabra, Barcelona, Spain, 2019.

[4] Akshay Paranjape,

Tools for Feature Extraction - exploring and using essentia library,