

**Software Engineering**  
**Modeling and Implementation Project**

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**“Simulator of a Cassette Deck”**

**- Models -**

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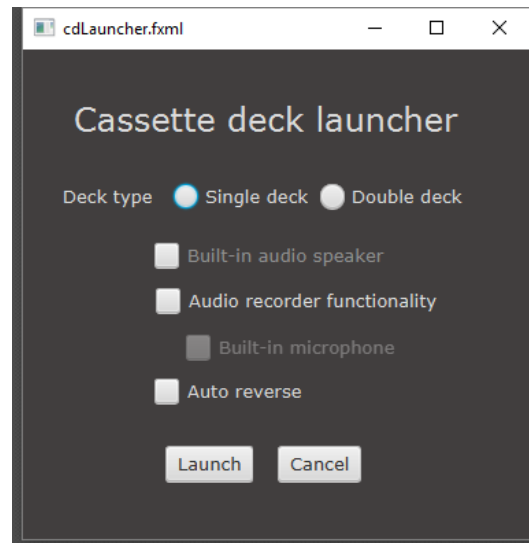
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Note that all 3 models are in an "alpha" version, which means that they are subject to change in the future (implementation phase).

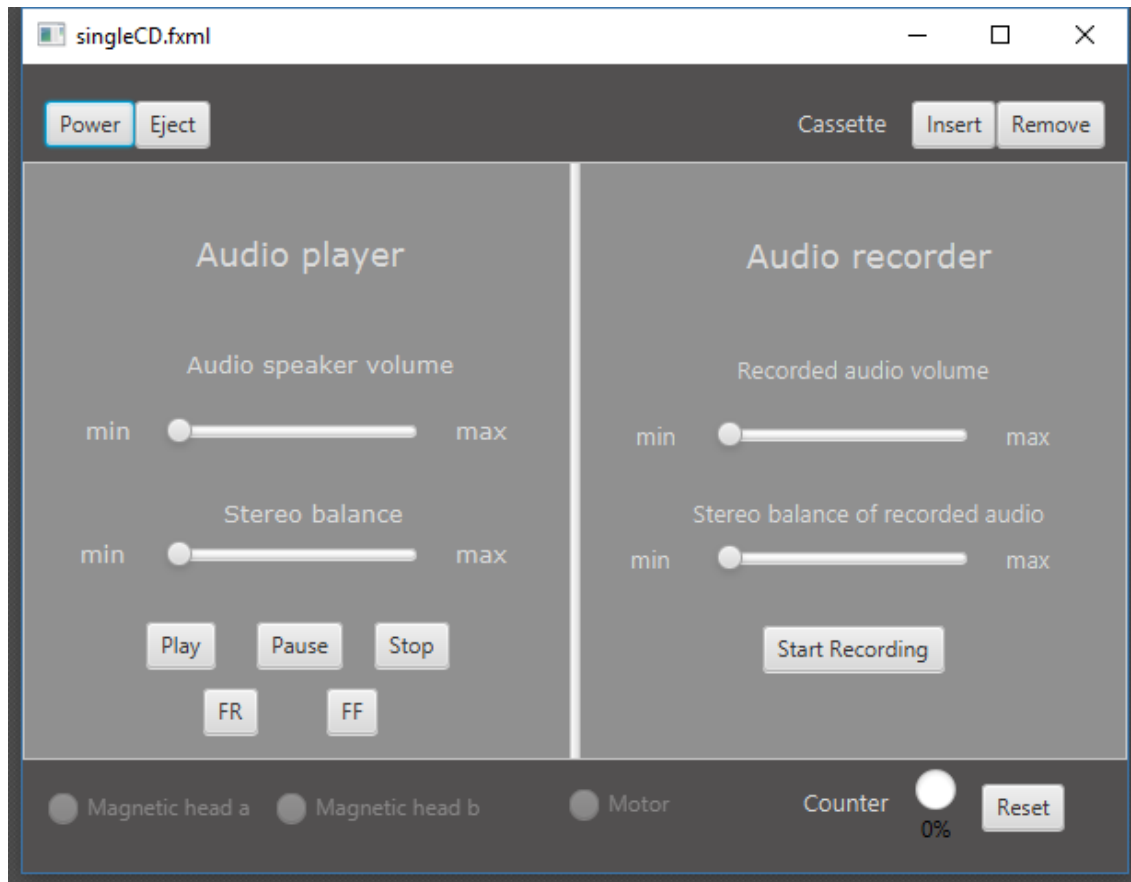
## 1 launcher



The cassette deck launcher allows the user to set the different functionalities the deck has. In doing so, we are able to simulate distinct scenarios of different cassette deck models.

For example: if the user wishes so, they can check the "Audio recorder functionality" box, allowing them to also select the built-in microphone option, that being done, clicking on the "Launch" button will result in Recording features being enabled and ready to use.

## 2 Single deck



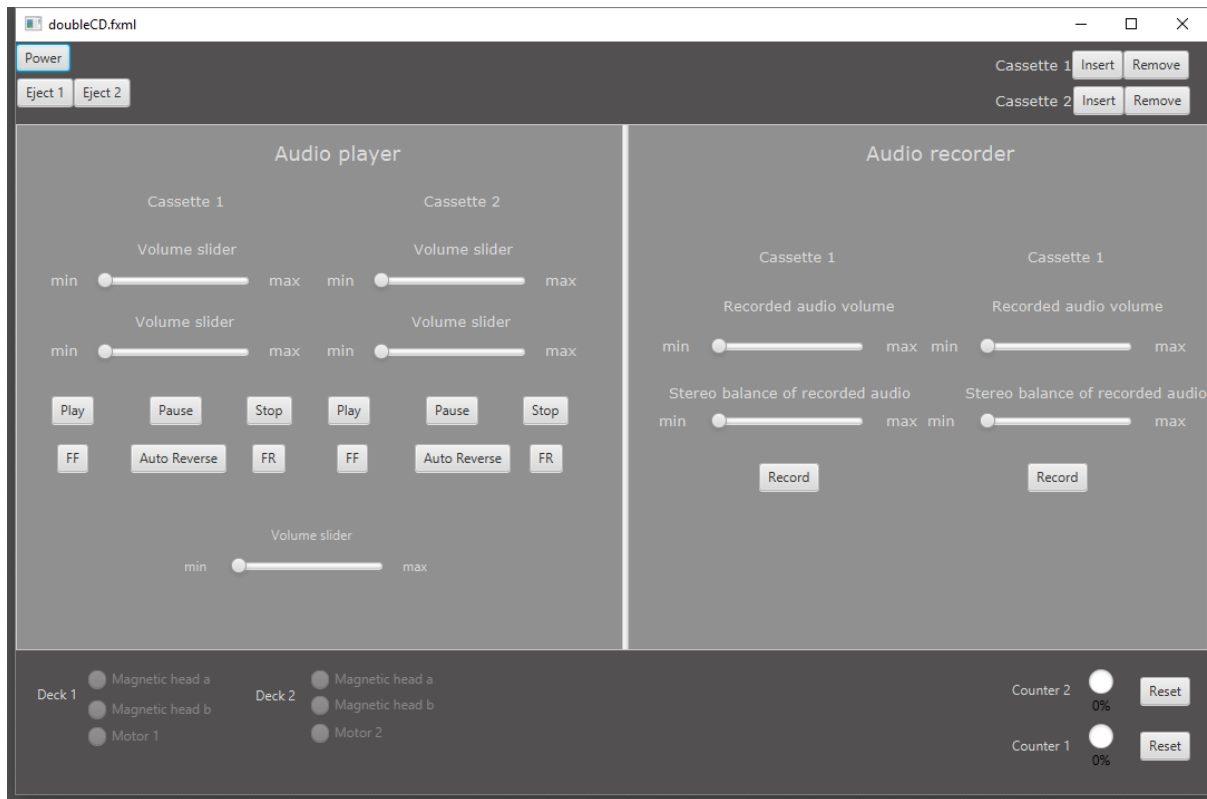
Depending on the features the user has chosen in the previous window (the launcher), some buttons and options might be disabled. For the sake of demonstration, we suppose that every features has been checked.

The user is greeted with a panel containing the main buttons, Power, Eject and Remove or Insert cassette, the last two are abstract in a real-world perspective (since these buttons do not exist in a cassette deck), but remain mandatory for executing the GUI.

Once a cassette is inserted, we are able to perform the two main functions of the deck, i.e. playing and recording audio, and all the related features.

The bottom panel contains disabled magnetic head radio buttons, showing which of the two is active in addition to a motor radio button, and one final button allowing the user to manually reset the counter.

### 3 Double deck



Similar to the single deck, the double cassette deck provides not only the same, but additional features i.e. the option to play two cassettes simultaneously. The volume can be adjusted either by two separate volume sliders or a common one.

The Eject, Insert and Remove buttons are doubled, we also notice four magnetic heads, each two belonging to one deck. Motors and counters are also doubled.

It is possible to copy music from one cassette to the other by simply pressing play in the first deck and record on the second (or reversibly).