GUI Programming  
Module-Maker

short line

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# Purpose

Give a brief description of your project

Module-Maker is a game centered around having multiple musical boxes (modules) combining to make some form of music. You have several different types of modules that do different things, and you can interact with them to change their parameters. It’s more of an audio playground rather than a game, where you can mess around and potentially create something pleasant.

# Requirements

The program will be designed and built fully in Unity and won’t need to depend on any other dependencies or pre-installed software besides to run it. It should be low in terms of its demand for processing power.

# Features

Describe features that are a requirement for your tool. Eg: drag / drop commands, switching levels, restart levels, run through actions etc.

* Command Key to interact with modules  
  Description: Having some functionality to be able to walk up to a module and press a key in order to interact with it and bring up its own separate UI.
* Sliders  
  Description: Lots of various sliders used to change parameters within the modules, as well as for master settings for the whole game. (E.g. Master volume)
* Command Key to spawn and place modules.  
  Description: The ability to press a command key to open a window with various module choices. Being able to allow the player to pick and then place whichever module they would like to use.
* First-person character controller  
  Description: The control of the player from a first-person perspective is necessary for the program to run as well.

* Pop-Up Tool tips for Controls  
  Description: When the player is carrying out an action there will be a tooltip that pops up to help instruct them on any necessary controls needed to carry out that action.

# UI Wireframe Mockups

Provide a sample wireframe mockup for each screen the user sees. If you have any dialog / popups, show wireframe for those dialogs. If you have tab controls, show a wireframe for each tab.  
  
For each tab, or change in view, you should show a new wireframe / mockup.

|  |
| --- |
| Note: This is an initial plan, a proposal for how your application will flow. |

Screen 1:

|  |  |
| --- | --- |
| **Image Source:** [Click Here](https://i1.wp.com/webdesignledger.com/wp-content/uploads/2012/10/wireframetools04a.jpg?w=970) | Describe the mockup, what the user sees, and purpose for the screen. Call out notable ui elements such as buttons and provide a name for later reference. |

Scene 1: Events:

* Xxxx button:  
  Describe what happens when the button is clicked?
* Close button clicked:  
  What happens? Quits straight away? Prompts to save unsaved changes?
* drag/drop:  
  How should things work when draged/dropped

# 

Screen 2:

|  |  |
| --- | --- |
| **Image Source:** [Click Here](https://i1.wp.com/webdesignledger.com/wp-content/uploads/2012/10/wireframetools04a.jpg?w=970) | Describe the mockup, what the user sees, and purpose for the screen. Call out notable ui elements such as buttons and provide a name for later reference. |

Scene 2: Events:

* Xxxx button:  
  Describe what happens when the button is clicked?
* Close button clicked:  
  What happens? Quits straight away? Prompts to save unsaved changes?
* drag/drop:  
  How should things work when draged/dropped

# Testing

During the process of developing the program it was tested by another class mate and the following was observed during testing:

Gameplay Observations:

-Player immediately tried to sequence break past accepting the disclaimer

-Player immediately spawned a module below the floor where they would not have been able to interact with it

-Occurring multiple times, the player would try to interact with the module without using the mouse and pointing the player at the corresponding buttons/sliders they were trying to interact with.

-Modules were being used to construct some form of a jumping puzzle with the player continuing the build up into the sky

-Module spawn positions were heavily incorrect when trying to spawn them while standing on another module (To the point where you could not see the wireframe mockup during placement)

-Player automatically knew that the F key would close the ModuleMaker menu after opening it with it. (They never used the mouse to hit the close button in the top right of the module menu)

-Jumping seemed very unresponsive when player model was on top of the modules.

Verbal feedback after playtest session:

-Interacting with a module could put the player into a locked state and bring up the mouse automatically / use some form of crosshair in the middle of the screen to allow the player to interact with the diegetic UI.

-The use of the mouse itself felt awkward when interacting with the world space UI but even more so the key binding (‘P’) forced the player to look down at the keyboard and bring their hand off the mouse to bring up the mouse.

Potential fixes to consider:

-Easiest fix for the Mouse would be to change the key binding, potentially to the ‘F’ key to allow the player to toggle it with their left hand.

-Ideally the addition of a crosshair in the middle of the screen to allow players to interact with the UI more naturally, instead of having to bring up the mouse. (To further eliminate the use of the on screen mouse the disclaimer could be accepted using ‘Enter’ and the module maker could make use of numbers ‘1-6’ to select which module the player would like to spawn.)

-Fix ground checks to allow players to easily jump on modules to allow them to build up into the sky, this would also look into fixing the module placement bug that was occurring when placing modules while standing on one.