

Buzzer

Feature Name: Buzzer

Feature Name in Annotation: Buzzer

Source of Information

Domain knowledge, Code comment, Source Code, ifdefs

Strategy Used:

Through 3D printer construction, we learned that the Cartesian printer with the LCD display screen support the functionality of making buzzer sound. Then we started from the largest and most central logic file MarlinMain.cpp, and browsing through the code comment and source code for whether the comments, variables, method, ifdef macros names contain keywords such as “buzzer”.

Feature Description: This feature is optional for Marlin, there are printers that have hardwares that support the making of buzzer sound while the others don't. This feature would allow the programmers to set up buzzer sound if they want. It could be set up to make warning signals or just sounds produced when making LCD menu adjustments.

Time spent: This feature is one of 18 features that were located by manually going through all code files of Marlin using our source code method. It took one person 25 hours to identify all 18 features.

Feature Characteristics:

Feature Name	LoFC	SD	TD	Completely Wrapped by ifdef
Buzzer	25	3	0	No

Ratios of sources (%)

RL	PR	CM	Ifdef	DK	CC	SC	GD
0	0	0	15	35	5	45	0

RL: Release Log; **PR:** Pull Request; **CM:** Commit, **Ifdef:** Ifdef Expression; **DK:** Domain Knowledge; **CC:** Code Comment; **SC:** Source Code; **GD:** G-Code Documentation.