

Roadmap – Harry’s Boppers – August 19, 2025

My current goal for the next major completion for the Boppers project is a prototype that can be used to communicate the concept, allow beginners to create interesting animations, and be used to seek collaborators and possibly funding for further development. This will be a “minimally viable prototype” (MVP)

This is a **partial** “roadmap” outlining the milestones for the MVP Boppers prototype. This version includes a list of the major functional areas to be coded.. and a list of specific areas that I think need to be addressed first.

The next version of this roadmap will be a web site with a main page listing major milestones and separate web pages, or groups of pages, giving additional detail about each of these milestones

The Boppers application will have two kinds of users. The end users are the primary target audience and consist of those who use the application to create animations synced with a pre-recorded piece of music they like a lot. I call these “**makers**”. The other set of users will be those who build and support the application. I call these “**builders**”. In addition to building the application, builders may also build, or find and import, objects and paths to be made available to makers through the Boppers database library.

A complete roadmap would include time estimates. However, I don’t think my guesses would be of much value at this point. I estimate that the entire project will be completed by the end of November, 2025 – but my experience is that I tend to underestimate. It will take as long as it takes.

I will list the main areas below. However, I now think it would be useful to break down some of these areas into two or more specific parts.

Each of the main areas will break into two parts. My plan is to complete work on the first part of **all** the milestones before any work is done on the second part of any milestone. The two parts are:

1. **First part:** Create working code showing proof of concept, but not adequate for MVP.

Several of these areas will break down into the following two components:

- a) Research to learn about this area. In particular I need to know what software or online resources are available related to this area. I also find I need to learn some of the terms and vocabulary used in discussion of each area.
- b) Once I have some perspective I can then work on the code for the proof of concept.

2. **Second Part:** Complete development of this area to be adequate for MVP

The major areas I see at this time are:

- 1. Design and coding of software related to
 - (a) creating 3d objects,
 - (b) ability to store the information for each separate object design. (knowing which 3D file formats to use and why)
 - (c) using the MySQL data base to allow builders to make the objects they create available to makers (animation creators). The objects themselves may or may not be stored in the database.
 - (d) the ability to import 3D objects from other sources
 - (e) Creating the interface to allow makers to find and use objects created by builders via the database library.
 - (f) Creating software to allow makers to create 3D objects by combining primitive shapes.
- 2. Design and coding of software related to
 - (a) paths to be used with 3D objects in creating an animation,
 - (b) storing the information related to each path
 - (c) using the MySQL data base to allow animation creators to use those paths in their animations.

- (d) the ability to import paths from other sources
 - (e) Creating the interface to allow makers to find and use objects created by builders via the database library.
 - (f) Creating software to allow makers to create simple paths.
3. Design and coding to allow makers to use “events” or other techniques to synch the behavior of objects with the audio track for which this animation is being created. This area relates to using events, paths, objects, object behavior to sync with anything in the audio experience.
 4. Ability to display, record, and save the animated video being created, including both the audio and the visual part of the animation. The video could be a .mp4 file or a similar video format.
 5. Creating, improving and modifying the user interface to be used by Boppers users (makers) and builders. Builders are those creating the objects, paths, and related library of components to be made available to Boppers animation creators (makers).
 6. Creating the user documentation for users of the MVP Boppers prototype.

The specific areas that I think to need be addressed first are :

1. Develop a good working knowledge of which file formats to use with the 3D objects in the Boppers project.
2. Coding the ability to store and access information related to 3D objects and paths in the MySQL database.
3. The interface and related code to synch events and object behavior with the audio track