

SPAJMOD '17

by Josh's friends

July 4, 2017

Abstract

SPAJMOD '17 is a collaborative effort to provide Josh with a bachelor party worth attending. Since he has gone so far out of his way in the past to put on unique and memorable bachelor parties, it behooves us to show that we are better than him at designing bachelor parties. Josh's bachelor party, insightfully named SPAJMOD '17, will consist of retrofitting a rental house as something of a combination of an escape room, text adventure, and a Zelda dungeon. The goal of the dungeon is for Josh to descramble an audio message by assembling a circuit out of large plaster components, which will allow him to defeat the "final boss", an evil entity named G.A.R.M. (after his grad school advisor) in the form of a D&D encounter. Each component will be given to Josh upon his solving various puzzles in the dungeon. In addition, to accommodate poor eyesight, as he travels throughout the dungeon, descriptions of his surroundings will be given to him via a voice synthesizer.

1 Introduction

It has been well-known for years that Josh, who has planned multiple complex bachelor parties, would require a bachelor party of his own that outshone his own efforts. This, although it requires a lot of work, is unfortunately necessary. To add to the misfortune, Josh's eyesight has degraded very much in the past year, meaning that any design decisions on our part require careful planning to ensure that he is still able to complete puzzles or navigate the dungeon successfully.

In broad strokes, Josh will navigate the different rooms of the house, receiving assistance as needed from a synthesized voice. The voice synthesizer will be controlled through a web interface (on a phone or a laptop) by a person present in each room. Inside of each room, he will complete mini-puzzles, which will reward him with the items necessary to solve the 'overarching' puzzle, which is a circuit design problem. When he completes that puzzle, he will receive a large wooden boss key, which he can then use to initiate a D&D encounter where he can defeat the "final boss", the great demon lord G.A.R.M. (a reference to his graduate school advisor who he did not like very much).

The party will take place on **Saturday July 22nd**, with Josh arriving at **5pm**, and continuing until whenever he finishes. While Josh is in the dungeon

itself, the experience should be somewhat otherworldly because all of his friends will be NPCs who only have pre-set lines and can't be conversed with. When he finishes, then his friends can return to 'normal' and food will appear.

The location of the party will be in a rented house in the greater Atlanta area:

<https://www.airbnb.com/rooms/14827239>

An outline of the document follows:

- Section 2 presents an outline of the basic flow.
- Section 3 presents each individual mini-puzzle idea.
- Section 4 describes the overarching circuit design challenge that Josh must solve to get the boss key.
- Section 5 describes the final 'boss' D&D encounter.
- Section 6 describes other miscellaneous elements of the party.
- Section 7 describes a list of items that will be obtained in the dungeon.
- Section 8 presents an expected timeline for the party.
- Section 9 is a collected list of the required resources (people and materials).
- Section 10 presents a basic idea of how the rooms can be set up.

2 Outline

The overall design of the dungeon will be similar to that of a typical Zelda dungeon: the player must solve some number of puzzles, collect items that allow them to get the key to the final boss, then defeat the final boss. For the most part we can stick pretty much to script, but since we don't have a cavern we can put this into, we have to retrofit a house.

When Josh is brought to the front door, presumably by either So-mi or Chad, he will believe he is going somewhere else—e.g. to someone's house to get a fascinating tool, to a Craigslist seller's house to get a part we need for some project, or any number of other excuses. Whoever brings Josh to the front door will have conveniently forgotten their phone and say 'ah shit I have to get my phone, stay here' and run back down the driveway.

At that point, a synthesized voice will say something along the lines of

You find yourself on a porch outside of an ominous-looking house. To the north is the entrance to the house, and to the south is the yard, which you feel that you should not go into. A backpack sits on the porch, as though it was waiting for you.

The voice itself will play from speakers inside the backpack, and the intention is that he will wear the backpack (a hiking backpack) as he traverses the house and collects items.

At this point, Josh may start talking out loud, but he will immediately realize that this is his bachelor party (it's also possible he is clever enough that he already knew before this). He may attempt to converse with the synthesized voice, which should, at all times respond with some useless thing like `I don't understand 'walk'`. In either case, sooner or later he will be goaded inside and at this point he will enter the dungeon.

The dungeon will consist of:

- Five mini-puzzles
- A shop from which he can buy things
- Multiple 'free' treasure items he can find throughout the dungeon
- A single room for the overarching circuit puzzle
- A final boss room with a large table where D&D can be played

Josh should be directed early on to the room for the overarching circuit puzzle; here, he will learn that there is a message he must descramble by filtering out additive noise. This sets the stage for the puzzle rooms, wherein after solving the puzzle he will receive either components or other items that may be useful to him.

In each room, as Josh travels throughout the house, a synthesized voice will continue to tell him his surroundings and describe each room that he enters and all objects of interest. Luckily for us, his vision means that it's trivial to obscure things we don't want him to find immediately. This means, though, that he will always have to be monitored, and someone will always have to be sure that the voice synthesizer is always able to provide the information that he needs. For instance, it would be useful to say things like `the door is a little to the left` or `you are not yet at the table` as he moves around.

When Josh assembles a circuit out of the large plaster circuit components that successfully descrambles the signal, he will be told the (obvious) location of the master key, which will be an actual Zelda N64 boss key replica made of hardwood¹.

Since we do not seem to have means to create any of the ridiculous locks in the N64 Zelda games, we will simply require him to present the key to a guard or to the final boss dungeonmaster. Once he does this, the final boss sequence is initiated, and all people in the house will descend to the location of the D&D encounter and participate (or stand around, depending on whether they want to play).

When Josh completes the encounter, enough food for everyone will arrive, and the dungeon part of the party will be completed and we can proceed to do the adult thing of sitting around and talking about the mundane details of our lives. Since we are renting the house that we are doing the party in, everyone can stay until arbitrarily late, and there is no need to do any cleanup until the following morning.

¹This is a nice gift he can take home from this whole thing.

3 Puzzles

This section describes the mini-puzzles that will be used throughout the dungeon. If, as you read this, you realize that you have a better idea than something listed here, it is easy to switch things out! So feel free to propose something new.

3.1 Carmen Sandiego, Hell Edition

Puzzle owner: **Ryan**

This puzzle is based on the minigame from Frog Fractions 2, which can be seen at <https://www.youtube.com/watch?v=XPLActhzM2A&t=1184> (you can ignore the idiotic gamer noises). The general puzzle needs significant adaptation to this context and for Josh’s eyesight difficulties.

In general the Carmen Sandiego game was a game of deduction where you must travel to different locations, gather clues to put in the database, then when only one person fits the clues, you must travel to the correct location to perform the arrest.

For this adaptation, we will preserve the music and the location from the Frog Fractions 2 minigame (so he will travel around the 9 circles of hell), and most of the functionality of the original game. Instead of displaying a typewriter on a screen—which he won’t be able to easily see—we’ll have a dot-matrix printer that will print the results of his commands. However, since he won’t really be able to do much with the printouts, a synthesized voice (possibly a different one) will simply read the output.

The puzzle itself will be trivial to beat; he simply needs to speak to the witness and to the informant to learn the clues that allow him to get the arrest warrant. We won’t require significant knowledge of Dante’s Inferno. The challenge with this puzzle will really be the interface itself (audio only plus keyboard), so there is no reason to make the puzzle hard.

As Josh learns about the suspect that he is chasing, it will turn out that the suspect is an unidentified large robot; however, after he gets the warrant and successfully chases down the suspect, the suspect will get away without being arrested. This helps to start setting the stage for G.A.R.M., the final boss.

The general workflow of the game will be to hit a key on the keyboard (1-9 to choose a location, **w** to talk to a witness, **i** to talk to the informant, other keys to set the values of the suspect case file, and **h** or **?** to print the help.

Once Josh is successful, he will be informed of a nearby item that he has won (i.e. a circuit component).

3.2 Impress the Art Critic

Puzzle owner: **Emily**

When Josh enters this puzzle room, he will be informed of the presence of a critic, who should be wearing a beret. The critic preferably would be So-mi but could also be someone else.

A table is available with various paints, crayons, construction paper, googly eyes, and other typical elementary school art supplies. Josh will be instructed either by the voice synthesizer or by the critic that he must construct a piece of art about his love for So-mi that will please the critic.

This is a perfect place for torture, as we can continually tell him that the art needs more eyes, or other things. Similarly, if the game is going too long, we can accept anything. It's important that the critic is mechanical and nonhuman to keep the immersion of the dungeon high; thus the critic should only say a few repetitive phrases.

When Josh successfully creates art to the critic's liking, he will be rewarded with whatever items are in that room, and he should also pack the art into his backpack for possible later use in the final boss room.

3.3 Otamatone (recurring puzzle)

Puzzle owner: **Mike**

Since the Zelda games focus so much on playing songs at the appropriate time, we can do the same here. Nick has obtained an Otamatone:

- <https://www.amazon.com/gp/product/B0070NHDNI>
- <https://www.youtube.com/watch?v=SKIDN11fYyY>

It is easy to play the Zelda sound indicating that Josh should use the Otamatone to play a song. It's also easy to play the failure 'dong' noise when he screws up. Since the house we will be in has a piano, it is only natural that when entering this room, someone is playing something on the piano. They can address Josh and ask him if he can play a song also. However, Josh can only do this if he already has the Otamatone—which is for sale in the kitchen shop.

If Josh has the Otamatone, then the person playing the piano will teach him a particularly simple song, something like this:

`https://youtu.be/SKhJJe_r4xc?t=317`

This song can be called the 'Song to Action'. It will cause things to happen when he plays it at the correct time.

Once he has played the song to our liking, he has then 'learned' the song, and as he travels throughout the house, there will be at least three spots that when he is close enough, the following noise plays:

`https://youtu.be/t-jTtwPaFLY?t=143`

In these spots, when he plays the Song to Action correctly, the voice synthesizer will inform him of a nearby item he can then take. If he plays the song incorrectly, we can play the 'dong' noise.

The Song to Action will also be useful for the Artemis minipuzzle, the Ra minipuzzle, and for the final boss.

3.4 Artemis

Puzzle owner: **Ryan**

Artemis (<http://artemis.eochu.com>) is a spaceship bridge simulator that Josh is familiar with. The game is designed as a party game, so six people play simultaneously on separate laptops. One person—Josh—is the captain, who makes the decisions as the other five players report information to him.

For setting up the room, we need five desks set up around the outside of the room, a large empty central area (that Josh can pace around in if he wants), and a projector screen or very large TV on one wall that can display the ship information.

When Josh enters the room, there should be nobody at the desks and the lights should be off. The synthesized voice should describe the room as a spaceship bridge and comment that the captain's seat is empty. When he gets in the seat, the voice will advise that some type of song needs to be played (this is, of course, the Song to Action). When he does this successfully, the lights will turn on, the five other players will run into the room and seat themselves at their stations and report similarly to **Engineering officer ready Captain!**.

At this point, Josh will receive instructions that a menace seeking to resurrect a long-lost god of knowledge is traveling through the galaxy and must be intercepted. This ship, of course, belongs to G.A.R.M., and there should be one or two skirmishes followed by a battle with the G.A.R.M. fleet. Although the fleet should be successfully destroyed, an escape pod will be reported to have left the area upon successful completion of the mission.

It will be important to play through the custom scenario at least once or twice so each crewmember is familiar with their controls, so that the crew will not let Josh down.

If Josh fails, and his ship (of course named the USS Internext) is destroyed, the crew will file out of the room and the lights will turn off. The synthesized voice will suggest that he leave the room, practice, and try again later. The scenario can't be restarted until he leaves and re-enters the room, at which point the exact same thing happens again.

3.5 Shop

Puzzle owner: **Ryan**

Just like the shops in the various Zelda games, Josh will walk into a room (presumably the kitchen) and a few items will be available for purchase with actual cash. So-mi will need to ensure that there is enough cash in Josh's wallet at the beginning of the dungeon.

The items for sale will be:

- Red pitcher of kool-aid
- Blue pitcher of kool-aid
- A stick

- A can of cashews
- The Otamatone
- A large plaster 100k resistor

Josh should interact with the shopkeeper, who should seem disengaged and never respond with anything more than a vocalized sigh. The ‘answers’ will come from the synthesized voice.

3.6 Ra

Puzzle owner: **Ryan**

Josh will enter a room with a table; on the table will be Ra (a board game). The synthesized voice will inform him that he should play the Song to Action. When he does this successfully, then three or four other Ra players will file into the room and a game of Ra will be played.

Josh knows the game and so does not need the rules explained to him. Each player should communicate only with a handful of pre-set phrases, and clarification of any rules should be left to the voice synthesizer.

Players should not work too hard to let Josh win, but at the same time players should also not try and make the game demonically hard for Josh.

If Josh wins, the players will leave the room, and the voice synthesizer will inform Josh of a nearby item that he can take. If Josh loses, the players will also leave the room, and the voice synthesizer will suggest somehow that he walks out and walks back in to try again.

3.7 Other possibilities

It’s possible that one could come up with cooler ideas than the puzzles proposed here. However, in any case, the puzzles suggested above will be at the very least sufficient. If we have too many items and too few puzzles, we can also simply make those items collectible as he moves about the house (i.e., when he enters a room, the synthesized voice tells him that the item is there and he can get it).

Another idea was suggested by Zach:

Gist: This one is a re-creation of the Day of the Tentacle scene. It involves putting Josh behind a fake (or real) electric fence, insert buzzy noises and have it guarded by one of us in a tentacle costume. The only way out is if he says something along the lines of “Mr. Tentacle man, I have to go to the bathroom.” Annd... that’s it. Maybe a lot of work for a stupid joke.

It is verified that Josh has played Day of the Tentacle recently enough to remember the joke. It’s not clear how to fit this one in, but that doesn’t mean it couldn’t fit.

4 Circuit Design Adventure

This section, written primarily by Chad, describes the circuit design part of the dungeon, which makes up the vast majority of the items he will be obtaining. Josh will collect components from each of the puzzle rooms and use them as needed to assemble a working solution to a design problem.

Atop a table will be the giant solderless breadboard and some representation or way to decode (perhaps speakers) the input and output signal. In the best case, the signal processing problem is an integral part of the storyline, and without a solution the final boss sequence cannot begin.

Each puzzle will produce one or more components which can be placed on the table next to the breadboard/verifier setup. When the last component is placed in this panel, a sage will be heard through the speakers telling the story of whatever task needs to be accomplished last. For instance, “**The murmuring of the sleeping demon needs to be amplified!**” or “**The voice of the sleeping demon has been obscured by additive white noise. Subtract it out to hear the demon’s message!**”.

- 2’x3’ sheet of 1/2" plywood covered in felt with rounded corners; everything mounts to holes drilled in this.
- Giant breadboard (20 nets, 1.125" pitch, approx. 12"x12")

Cover made of plaster or foam. (We can 3D-print a punch tool for making the face and laser-print templates for the corners.)

Tie points made from aluminum channel (McMaster-Carr part 4592T26).

Buses for positive and negative supply.

A few giant 1.5"x1.5" signal I/O headers.

- Access control panel with foam covering with illuminated slot for each component.
- 12 giant electronic components
 - 2 PNP transistors
 - 4 NPN transistors
 - 4 100k resistors
 - 1 1k resistor
- 48 or so giant jumper wires/cables
- Some sort of analog signal path manual-verifier with speakers.

Josh will be told that a message must be decoded to open the path to the demon at the heart of the dungeon, and the message has been corrupted with additive static by evil forces. Luckily, the static, without the message included, is also available.

At this point Josh will probably realize that he needs to build a differential amplifier. He may gravitate towards a circuit such as the one described in Figure 1. He can control the gain (which should be 1) with feedback using a circuit

like that. So, this is 4 resistors for the feedback network, 4 NPN transistors, 2 PNP transistors, and 1 resistor for the emitter bias network.

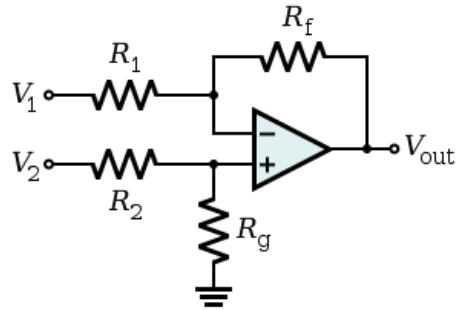


Figure 1: An example circuit that Josh can use.

There is always the possibility, since this is Josh and his aptitude dwarfs that of us amateurs, that he will be able to build something that meets the requirements using a subset, and perhaps even a small subset, of our components. The resistor values available do not allow him to “cheat” by building a traditional long-tailed pair without the refinement of an active load, but he will probably think of something, so an additional plot about needing to collect the essence of all the components (perhaps with an accompanying scoreboard type announcement/display) may be necessary for sequencing, and also to give him hints as to the types of components that will be available when this puzzle starts.

When Josh does finally decode the message, this will reveal the location of the master key (probably just under the table that the board is on). The master key itself, which will be a large wooden replica of the N64 Zelda boss keys, can then be taken by Josh. A rendering of the key, which will be provided by Brian, is seen below.

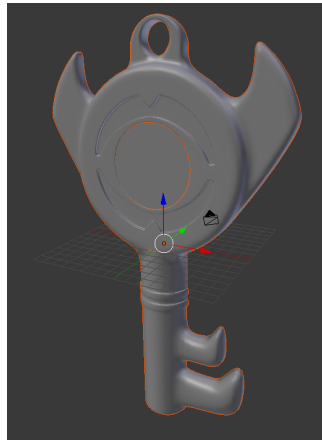


Figure 2: Rendering of boss key.

5 Final boss encounter

Owner: Nick

Once Josh has completed all of the puzzles and received the master key, he will be allowed access to the final boss room. This D&D encounter, which can take any form, should ideally feel to Josh like he’s only just barely made it through, and should also require him to use the Otamatone again.

When Josh enters the final boss room, this should be the only room without music. It should stay quiet until Josh is seated at the table, at which point one of the Zelda boss theme intros plays, and then whichever Zelda boss theme we like best (or perhaps multiple themes if we DJ it) play throughout the encounter.

The encounter itself will focus on Josh fighting G.A.R.M.: Gilgamesh, Autonomous Research Master. G.A.R.M. is trying to summon Alteon, God of Structured Knowledge, who will ensure that all knowledge is obtained in a manner that is approved only by G.A.R.M., thus making G.A.R.M. the Overlord and Arbiter of All Knowledge.

Although Josh can fail the other encounters, he should not be allowed to fail this one. If needed, dice rolls can be fudged for saving throws (he can’t see the results anyway) or characters can be introduced to bring him back to life, and so forth.

When the encounter is finally complete, Josh will have completed the dungeon and we can return to being normal people—but until that point, we should still be in character (i.e. acting like in-game NPCs, not real people).

The details of this encounter will be provided by Nick, who will serve as the dungeonmaster. But the general idea will match what is above.

6 Miscellaneous Elements

The ideas above neglect a lot of the other things that must be considered during the party. This section aims to rectify that by discussing these ‘little things’.

1. **Voice synthesizer.** At all points, Josh must be able to receive input from the synthesized voice. This is likely to be his primary form of navigation, and thus someone must be present in each room to provide input to the system. The hiking backpack that Josh wears will contain speakers meant to play the output of the voice synthesizer. All participants in the party can interact with a webpage that allows them to send either pre-set phrases or custom messages to the synthesizer, and view what is being said, so that they can track his progress. The backpack can also have a microphone recording so everyone can hear what is going on.
2. **Background music.** Each room should have its own background music. Ideally, this can be statically placed in the room, or alternately could also be piggybacked onto the voice synthesizer system. The music chosen for each room should be appropriate to the puzzle at hand.

3. **Movement of NPCs.** The dungeon should ‘feel’ as empty as we can make it. So as people have to move between rooms, we should try to minimize how much Josh notices. This part cannot really be planned completely until we know the house we are going to be in, so that we can determine where we can walk around him. If an NPC stands still while Josh walks by, he isn’t likely to notice. (Chad should test this!)
4. **Failure contingencies.** We must always be prepared for a puzzle to fail, or for Josh to be unable to accomplish it, or some other unforeseen problem. Therefore we should always have some backup plan for if any puzzle fails, so that he can still obtain the part that is needed and we don’t have to break character or immersion.
5. **Food.** At least one participant will have to leave the party in order to handle the food showing up at the right time. Possible food sources include Community Q, Antico’s, Bell Street, or other places Josh is known to like.
6. **Josh trying to break the game.** Since Josh is who he is, it’s highly likely that he’s going to test the limits of what he can and can’t do to try and short-circuit puzzles. Each puzzle owner should be focused on how Josh can break the puzzle and have some contingency for if he tries to do that. One easy way out is for the voice synthesizer to inform him that his efforts are not appreciated by the universe. At the same time, maybe it is okay if he breaks the game here and there, as long as we can roughly preserve continuity.
7. **Compass and map.** Josh should, at some point, receive a compass and a map, but they should not be useful in any way.

7 Items

The following items will be available for Josh to obtain throughout the dungeon. Places where he will obtain them are listed next to the item (although these can change if needed).

- Hiking backpack
found at the beginning of the dungeon
- Otamatone
bought in kitchen shop
- 1 1k resistor
awarded at introduction of circuit design puzzle
- 2 PNP transistors
one awarded at end of Ra minipuzzle
one found in the dungeon by playing the Song to Action

- 4 NPN transistors
 - two awarded at end of Carmen Sandiego minipuzzle*
 - one awarded at introduction of circuit design puzzle*
 - one found in the dungeon by playing the Song to Action*
- 4 100k resistors
 - one bought in the kitchen shop*
 - one awarded at end of impress the artist minipuzzle*
 - one awarded when Song of Action is learned*
 - one awarded at the end of the Artemis minipuzzle*
- compass
 - found in the dungeon by playing the Song to Action*
- map
 - awarded at the end of the Artemis minipuzzle*
- printed transcript of Carmen Sandiego game
 - awarded at the end of the Carmen Sandiego minipuzzle*
- art
 - kept after end of impress the artist minipuzzle*
- boss key
 - earned after the end of the circuit design puzzle*

8 Timeline

Since there is a significant amount of preparation in this highly choreographed effort, it's probably a good idea to set aside rough timelines for each thing that happens.

- **by Wednesday night before the party:** all puzzles and materials should be ready; volunteers should know their roles
- **between Thursday evening and Friday morning:** keys to Airbnb/VRBO obtained; puzzle layout ideas discussed
- **Friday evening:** puzzle layout finalized
- **Saturday during the day:** house reorganized, puzzles set up and tested
- **Saturday 4:30pm:** volunteers should arrive
- **Saturday 5pm:** Josh arrives
- **Saturday between 8-10pm:** Josh finishes dungeon, socialization begins
- **Sunday:** house restored to original condition and returned

9 Materials

Below is a list of known materials that will be needed. This list will grow as we get closer to the date.

- Airbnb/VRBO rental house with 4-5 bedrooms and ample open space (*rented*)
- Several folding tables for puzzles (between 4 and 8) (*2 owned*)
- Hiking backpack (*obtained*)
- Between one and eight sets of external speakers (*some obtained*)
- Well-tested laptop for voice synthesizer, plus backup (*owned*)
- Elementary school art supplies
- Beret
- Otamatone (*purchased*)
- Wooden master key (*designed*)
- Dot-matrix printer, rigorously tested (*nearly fully tested*)
- Custom Carmen Sandiego software (*complete*)
- Custom Artemis scenario
- 5x laptops or computers for Artemis stations
- Projector+screen or very large TV (*contained in Airbnb house*)
- Barstool for captain's chair (*owned*)
- Supplies for circuit components (from earlier section) (*in progress*)
- Red and blue kool-aid
- Two pitchers
- A stick
- A can of cashews
- Cash for Josh's wallet
- Compass and map (*owned*)
- Ra board game (*owned*)

In addition, as far as volunteers, we have the following jobs that need to be filled. It's certainly possible that one person can fulfill multiple roles, depending on the roles in question. There are definitely enough roles that that will be necessary.

Job	# spots	who?	Description/requirements
Artemis player	5	???	Play Artemis with Josh, practice playthrough before party
Ra player	3-4	???	Play Ra with Josh; should be familiar with game already
Art critic	1	???	Needs to wear a beret. Probably So-mi?
Carmen Sandiego operator	1	Ryan	Ensure the Carmen Sandiego software does not fail
Otamatone teacher	1	???	Play the piano to teach Josh the Song to Action; optionally design the Song to Action, and play background music when Josh is in the room
Shopkeeper	1	???	Stand behind the kitchen counter and seem disengaged when Josh is in the shop.
Dungeonmaster	1	Nick	Run the final boss encounter.
Circuit design operator	1	Chad	Ensure that there are no problems with the circuit design puzzle.
Guard for final boss	1	???	Stand outside the final boss room and require Josh to present the boss key.
Food supplier	1-2	???	Make sure that the food shows up at the right time.
Synthesizer operator	~10	???	Control the voice synthesizer (via your phone or a laptop) in a given room.

As far as setup for the party goes, the more volunteers the better. But since this is not our house, we should try and minimize our impact, which means moving as little as possible. What we'll have to take care of will probably be moving breakables out of the way, and getting beds out of the way so that we can use the space in each room.

10 Room setup

Since the Airbnb house is reserved and we have pictures, we already sort of know the layout. Thus we can develop a tentative assignment of puzzles to rooms. We have the following rooms that can be seen from the pictures:

- **Front porch:** start of party, Josh receives backpack here
- **Sun room:** circuit design puzzle
- **Kitchen:** shop where Josh has to buy things
- **Dining room:** D&D final boss room
- **Den with piano:** Otamatone minipuzzle

- **Master bedroom:** room with at least 2 items to be obtained via Song to Action
- **Guest room 1:** Ra minipuzzle
- **Guest room 2:** Carmen Sandiego in Hell minipuzzle
- **Attic bedroom:** Impress the Artist minipuzzle
- **Attic den:** Artemis minipuzzle
- **Back deck:** unused

It's likely there's at least one more room not shown in the pictures, or a hallway, in which we can place the third item to be obtained via the Song to Action.

It's also possible that this plan may not work out, so on Thursday when we get keys to the house we can reorganize the layout as needed. At this time, we have no floor plan, so the best we can do is guess.

In addition, because Josh has difficulties in low-light conditions, we should see if there is anything we can do to make the house lighter. One easy option is to replace lightbulbs with high-equivalent-wattage LED bulbs (I have a couple already).

11 Final notes

I'm confident that if we can pull this party off in the way we are envisioning, it will not just be an experience that Josh won't forget, but also one that everyone involved won't forget. Having been the subject of one of Josh's bachelor parties, it's hard to describe the feeling that went with the realization that so much effort had been poured into it, and I think it will be an entirely gratifying experience for everyone to do the same for Josh. Also, it will be funny as hell to watch him get irritated trying to navigate this dungeon with only shitty voice synthesizer descriptions of where he is going, and to watch him encounter these ridiculous puzzles.