Preliminary Risk Assessment

Production Risks		Severity	Likelihood	Description	Mitigation
Staffing					
	No Producer	Moderate	Moderately Likely	Our team doesn't have a real producer.	By using the production tutors and completing production work as a team we can make up for our lack of a producer. We can also designate a stand-in producer who can cover most of the wiki work.
	No Sound Designer	Low	Moderately Likely	Our team has no sound designer.	We can designate the sound design work to a single designer as we already have one with a minor in sound. This will also prevent the designers from working over eachother and scoping issues in the future.
	Three Designers	Moderate	Moderately Likely	Our team has a number of designers which could could lead to over scoping the project and issues with delegating tasks.	We can remind the desiners to reign it in as much as possible to avoid going outside of scope. Also designating specific scenes to different people to keep people from working over each other.
Project Management					
	Managing Taskboard	Moderate	Moderately Likely	Managing the taskboard and is vital for ensuring all hours are logged and that the project is successful.	This can be mitigaged with daily scrum. Having to report progress to the rest of the team reminds folks to mark tasks as completed and allows for teamates to double check if tasks are completed on the task board or not. To
	Delegating Work	Moderate	Low Likelihood	Delegating work such that individuals are not overloaded can prove difficult.	Thorough sprint planning and fair delegation of tasks will prevent individuals from becoming overloaded with work for the project. Communicating with the team and informing others of when work for other classes begins to pile up is also very important for sucess in delegating work.
	Managing backlogs	Moderate	Moderately Likely	Generating a large number of user stories is necessary for the success of the project and it something that groups in our section have struggled wtih historically.	Taking time during meetings to groom the backlog is an important step in the agile process and it is something we can do to ensure our backloogs and userstories are strong.
Financial					
	Production Costs	Low	Low Likelihood	Spending more time on development would drive up costs.	Simplifying mechanics, assets, and planning pipleines early would greatly reduce prodcution time.
	Marketability	Moderate	Moderately Likely	Finding a market for our game may prove difficult as we do not have a member of the team who is experienced in doing so.	Taking the time to reasearch markets and connect with other individuals who could provide direction in marketing our game.
Tools					
	Redmine	Low	Low Likelihood	The team is farily comfortable with redmine however there may be some issues due to confusion around uniform task management and logging hours.	Communicate and come to a consensus on how hours are logged and how our task hierarchy will be set up. Also reaching out to tutors or Wehr regarding any issues we can't solve on our own.
	Git Kraken	Moderate	Low Likelihood	We may run into issues with Git and our repositiory.	This is unlikely, however, communication and keeping everyone on the same page would prevent issues such as merge conflicts from occuring in the future.

Art and Animation		Severity	Likelihood	Description	Mitigation
Creative Risks					
	Choosing a unified visual direction	Moderate	Low Likelihood	Our idea can be pushed in a number of visual directions, not just in regards to art style but in regards to things such as how advanced the technology of our game is, where in space it occurs, etc. And wtihout consideration our visual decisions may not be very successful.	Communciation within the team to settle on a strong unified narrative would prevent us from getting lost trying to answer conceptual questions regarding our game. Progress checks on art and visual development with the rest of the team would also prevent dissapointment or loss of the "Big Picture" during development.
	Animation	Moderate	Moderately Likely	Our game will most likely have a number of animations ranging from character and enemy animation to vfx animation.	Frontloading work for the game would allow for time to produce necessary animations, this may range from vfx for certain UI elements to character animations for characters we may want to implement. The more time there is for problem solving the better.
	Creating visually consistant assets	Moderate	Low Likelihood	Because there are two artists working on the game, creating assets that look visuall consistant may prove to be a challenge.	The artists need to communicate and decide on a singular style and pipelne to ensure everything in game is visually unified.
Implementation					
	Repository Issues	Moderate	Low Likelihood	There could potentially be errors when pushing changes/assets into the repository.	Graining a solid understanding of Git Kraken and the functions of the repository would prevent erors when pushing changes down the line.
	Creating functional assets/animations	Moderate	Low Likelihood	All assets must be able to function in game. Depending on what direction we take our game we may need certain effects or animations that we aren't 100% sure in how to approach creating.	Frontloading work and giving outselves more time to create assets will give us more time to plan them, increasing the chance that they will be functional upon implementation.
	Unclear Pipeline	Severe	Moderately Likely	The pipeline for making/implementing assets is not yet clarrified.	Over the course of development but especially in the early sprints the artists must communicate and decide on an effective art pipeline.

Design		Severity	Likelihood	Description	Mitigation
Creative Risks					
	Multiple character scope	Moderate	Moderately Likely	Including multiple playable characters may be out of the scope for this project.	Make changes between characters very minor or making the idea one that can be easily cut.
	Level Design	Moderate	Low Likelihood	Designing levels to be fun and fluid to play through while using the games unique control scheme may cause problems with design.	USing a high amount of testing in every sprint to fine tune the level design.
Implementation					
	Natural Movement	Moderate	Moderately Likely	The DJ Hero controller is uncommon, unconventional, and not designed for this kind of gameplay, so playing the game may feel unnatural.	To mitigate this risk we intend to rigorously test the controls both in the team and in testing.
	Gravity Physics	Moderate	Very Likely	Making the games low gravity physics fit our intention for a fast paced game may cause some issues	Making the levels smaller and making the actions the player can take be faster and smoother could help elliviate any floatiness or stiffness the games physics might cause.

Programming		Severity	Likelihood	Description	Mitigation
General Risks					
	Unconventional Controller	Moderate	Moderately Likely	Controller proves difficult to program with	Attempt to devote time to learning special controller, or scope down
	Multiple Programmers	Moderate	Very Likely	Merge errors in code or different syntaxes in code could lead to confusion and the destruction of work	VERY clear communication on when code is being worked on, including Mattermost messages and tasks
Mechanics					

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Tongue Firing	Moderate	Moderately Likely	Tongue firing is bugged and does not move the player.	Scope down to frog legs, or allocate extra time into the basic mechanics
Movement	Severe	Low Likelihood	Player movement does not work with other mechanics, or at all.	Allocate more time to developing the movement mechanics
Flies	Moderate	Moderately Likely	Player cannot collect flies around the level, or flies do not hurt player	Scope flies down to other collectibles that do not harm the player, or allocate more time to developing the flies
Captain Fly	Moderate	Low Likelihood	Captain fly does not complete the current level.	Use base flies to complete the level, or spend more time into the captain fly.
Systems				
Oxygen	Moderate	Moderately Likely	Oxygen meter does not fail the game, or does not count down correctly	Scope down to a timer and health bar separately, or allocate more time to it than other projected ideas
Character Selection	Low	Moderately Likely	Character selection is too out of scope, or extra characters break the game.	Scrap mechanic, or scope down to less characters
Hazards	Moderate	Moderately Likely	Hazards do not remove health, or are too hard to get around.	Scrap hazards or make hazards do no damage, just block the player
Winning/Losing	Severe	Low Likelihood	The game cannot send the player to a win/lose state.	Allocate more time to fixing the win and loss states
Level Selection	Moderate	Moderately Likely	Levels cannot be selected from the main menu, or in the game	Scope down to a single playthrough, or spend more time on developing a level selection system

Key	**Severity**
Severe	A catastrophic show stopping failure
Moderate	Potentially damaging to either the team or the game.
low	May affect the quality of the game or effectiveness of the team.

Key	**Likelihood**
Very Likely	It is very likely that this issue will occur (75% +)
Moderately Likely	There is roughly an even chance of this situation occurring (75-25%)
Low Likelihood	There is a low likelihood of this occurring (-25%)