Insert Game Title

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Introduction:

Story

The story begins with an inactivated robot coming in on a conveyor belt. When it reaches the end of the conveyor belt, it falls off and activates. It finds itself in an empty room but as soon as it tries to move another robot appears and blocks its way. It is informed by this robot, named Klunk, that all new recruits (robots) must first pass a training course before it can proceed to the factory. Klunk directs the new robot to a portal, and the training course begins. Klunk gives directions on what to do in the training course over and intercom. At the end of the course, the while Klunk is in the middle of saying something, the intercom is shut off and only static is heard. The new robot returns to the starter room only to find it empty. It finds a new portal and heads through to find an empty robot city. From here, it proceeds into the factory in order to find Klunk and the rest of the robots.

Genre

GAME TITLE is a basic platform style game. The main focus of this game is the player's ability to jump. As a result, the game will be more vertical then horizontal where the player starts on the bottom of the level and must make their way to the top. There are no weapons or attacks in this game forcing the player to jump, dodge, and time there movements right to get past obstacles. The purpose of obstacles is to hinder the player's progress, pushing them backwards if they are hit by the obstacles. Since more often than not, the player will be on a single block platform, getting pushed backwards will pushing them off the block and potentially to the bottom of the level. As the game progresses, the player will find different types of equipment that they will need to use in order to progress into the game.

Target Audience

No particle target audience, but probably aimed towards older kids and teens.

Goals of the Game

The initial goal of the game is for the player to successfully navigate through each level and reach the end.

A secondary goal would be for the player to try to complete the game in the fastest time possible.

Game play

Controls:

'A' key = movement left
'D' key = movement right
'Space' key = jump and use tool
'W' key = move up on ladder (or rope) and activate portal to move to next room
'S' key = move down on ladder (or rope) and crouch
Keypad = changes robot into different forms

Object Robot Forms:

Base robot: Basic robot the player starts off with in the beginning of the game. It has average jump and movement speed, but is the only form that can climb ropes and ladders. (keypad key '1')

Wheel robot: First 'vehicle' form the player will receive. It has almost double the speed of the base form, but the height of its jump is halved. (keypad key '2')

Spring robot: Second 'vehicle' form the player will receive. The height of its jump is doubled, but its movement speed is halved. (keypad key '3')

Ice Drill robot: Although the robot can be in any of its vehicle forms when the transformation to a 'tool' is initiated, the robot will be reverted to its base form while a 'tool' is activate. Ice drill allows the robot to drill through large blocks of ice too tall to jump over. It is activated by pressing the space bar next to ice block. It takes several seconds for the ice drill to successfully break the block. While in any tool form, the robots ability to jump is disabled. (keypad key '4')

Magnet robot: Second 'tool' form the player will receive. When tool is activated, metal objects (such as metal ladders) within a certain distance from the robot in the direction the robot is facing will slowly move towards the robot. Useful for creating a way across large gaps. (keypad key '5')

Potential Robot Forms:

Second Drill robot: Later in the game a second type of drill may be introduced. It will function the same as the ice drill, but instead of ice, it will be used to destroy blocks of a different material. Potential materials include: metal, wood, or rock. (keypad key '6')

Glider robot: A third 'vehicle' form with significantly slower movement speed than the base form (slower than the spring form) on ground, but allows travel across wide gaps. The player jumps off the edge and will slowly descend while gliding in the direction they are facing. Once gliding, the player cannot change directions, but they can speed up or slow down by using the 'A' and 'D' keys. If they cross over an up draft, they will be pushed up as long as they are over it. (keypad key '7')

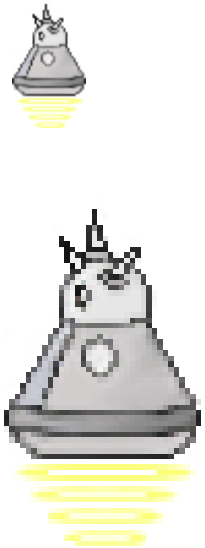
Balance between features: The player is free to switch between forms as they become available whenever they want as many times as they want, but when switching, the robot freezes for one second before transforming and becoming useable.

Decision-Making: The secondary goal of this game is to get the fastest time through the game, thus it becomes strategic in figuring out the best path to the end. The player must also decide when and where it is appropriate to use a particular tool or vehicle. They must also decide if the freeze time it requires to switch between different forms is worth the benefits of changing forms or if it would be faster to just stick with one form for most of the level.

Objects and Sprites

Object Robot Sprites:

A basic design for the base robot has been drawn and hopefully can be incorporated into the game. A preliminary design for the sprite is shown below as actual size and enlarged size (arms will be included).



Necessary sprites for the robot:

- Robot Start (unactivated)
- Robot Basic Stand (left/right)
- Robot Basic Move (left/right)
- Robot Crouch (left/right)
- Robot Wheel Stand (left/right)
- Robot Wheel Move (left/right)
- Robot Spring Stand (left/right)
- Robot Spring Move (left/right)
- Robot Climb

- Robot Ice Drill Stand (left/right)
- Robot Ice Drill Move (left/right)
- Robot Magnet Stand (left/right)
- Robot Magnet Move (left/right)
- *Robot Drill Stand (left/right)
- *Robot Drill Move (left/right)
- *Robot Glider Stand(left/right)
- *Robot Glider Move (left/right)

Additional objects in game:

- Controller Objects
    - Obj_controller – controls global variables
    - Obj_controller_ice – controls creation of icicles in freezer levels
    - Obj_controller_cb_crate – controls the production of crates in the conveyer belt level
- Obj_icicle
- Floor/Wall objects
    - Obj_wall – motion stops when keys ‘A’ and ‘D’ are not hit
    - Obj_iceblock – ice floor; motion continues without the use of ‘A’ and ‘D’ until friction stops it (or the use of ‘A’ and ‘D’ to negate the motion)
    - Obj_cbl – conveyor belt object moving clockwise
    - Obj_cbr – conveyor belt object moving counterclockwise
        - Note on conveyor belt. The speed at which conveyor belts move is equal to the movement speed of the spring form robot thus a player will not be able to use the spring form on conveyor belts unless they feel like jumping in place.
    - Obj_crate_small – used in conveyor belt level and chase the thief
    - Obj_crate_large – used in spring level
- Obj_icepillar – object ice drill is used on
- Obj_portal_image
- Obj_portal – smaller that portal image so player must stand in center of portal to travel to next level (invisible object)
- Obj_ladder
- Obj_robot_center – created for use of ladder so that robot will only go up ladder if it is standing within two pixels (either side) of its center. Allows for jumping from one ladder/rope to another nearby without the player constantly redirected back to the initial rope/ladder
- Obj_Clunk – depending on difficulty of programming the brothers Clunk, Clonk, Clank, Clink, Clenk, and Clynk may be all the same object with different sprites or all separate objects.
- Obj_thief_wdog

- Obj_thief_wodog
- Obj_dog – not sure if an object for this is needed
- Hazard objects
    - Obj_hazard – necessary if effects of the three types of hazards are all the same
    - Obj_hazard_horizontal_floating
    - Obj_hazard_horizontal_platform
    - Obj_hazard_vertical
- Interface Objects
    - Obj_save
    - Obj_quit / obj_main_menu
- Menu Objects
    - Obj_start_game
    - Obj_load_game
    - Obj_quit
    - Obj_title
- Obj_door_wheel
- Obj_sweeper – giant block that chases the player down the level the wheel is obtained
- Objects pertaining to boss level
    - To be determined

Possible Objects to be added:

- Obj_updraft
- Obj_door_warehouse
- Obj_material – for easier implementation each material found in the warehouse will be its own object
    - Possiblilities (known ones included)
        - Obj_oilcan
        - Obj_sheets
        - Obj_bolts
        - Obj_metalrods
        - Obj_hammer
        - Obj_wood
        - Obj_paint
        - Obj_battery
        - Obj_wire
        - Obj_lantern
        - Obj_lightbulbs
        - Obj_crowbar

Additional Sprites

- Wall/floor sprites
    - Spr_wall – most likely will be covered over by wall tiles but will need in order to see placement in room
    - Spr_iceblock – ice floor object
    - Conveyor belt sprites
        - Spr_cbl – clockwise center conveyor belt piece
        - Spr_cbr – counterclockwise center conveyor belt piece
        - Spr_cbrendl – clockwise right end piece
        - Spr_cblendl – clockwise left end piece
        - Spr_cbrendr – counterclockwise right end piece
        - Spr_cblendr – counterclockwise left end piece
    - Spr_crate_small
    - Spr_crate_large
- Spr_icicle
- Spr_icepillar
- Spr_portal
- Spr_ladder – most likely covered by wall tiles but used for seeing placement
- Spr_filler - sprite used for invisible objects such as obj_portal
- Spr_robot_center – used for invisible obj_robot_center
- Robot Brother sprites
    - Spr_clunk
    - Spr_clonk
    - Spr_clank
    - Spr_clink
    - Spr_clenk
    - *Spr_clynk
- Spr_thief_wdog
- Spr_thief_wodog
- Spr_dog
- Interface sprites
    - Spr_interface – text area and outline of keypad
    - Spr_save
    - Spr_quit / Spr_menu
    - Spr_keypad_basic
    - Spr_keypad_wheel
    - Spr_keypad_spring
    - Spr_keypad_ice_drill
    - Spr_keypad_magnet
    - Spr_keypad_dog

- Main menu sprites
    - Spr_title
    - Spr_start
    - Spr_load
    - Spr_quit
- Spr_sweeper
- Spr_door_wheel
- Boss level sprites to be determined later
- Hazard sprites – unknown for now

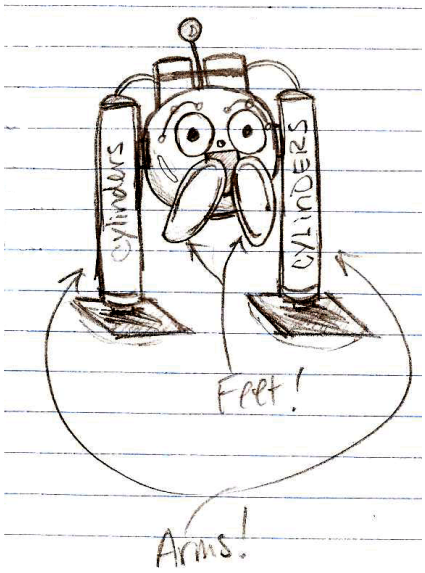
Potential Sprites to be added

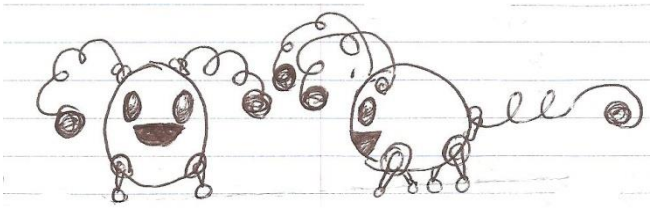
- Spr_warehouse_door
- Sprites for all the materials
- Sprites for all the materials for the keypad
- Spr_updraft

Backgrounds

The background doesn't vary much throughout the game. It will be a factory like background, grayish, potentially tiled. In the freezer section, there will be frost and ice build up on the factory walls.

Note: The main robot (and all its amenities), the robot brothers, and the dog are the only sprites that will be made me. All other sprites, backgrounds, and sounds will be taken from other sources with due credit. These sprites may be tweaked slightly to give the effect I am looking for. However, credit will still be given to the source the original was taken from. Some of the main robot's additions may potentially be taken from other sources. If so, they will be given credit.





Figures: Concept art of clunk and robot dog respectively

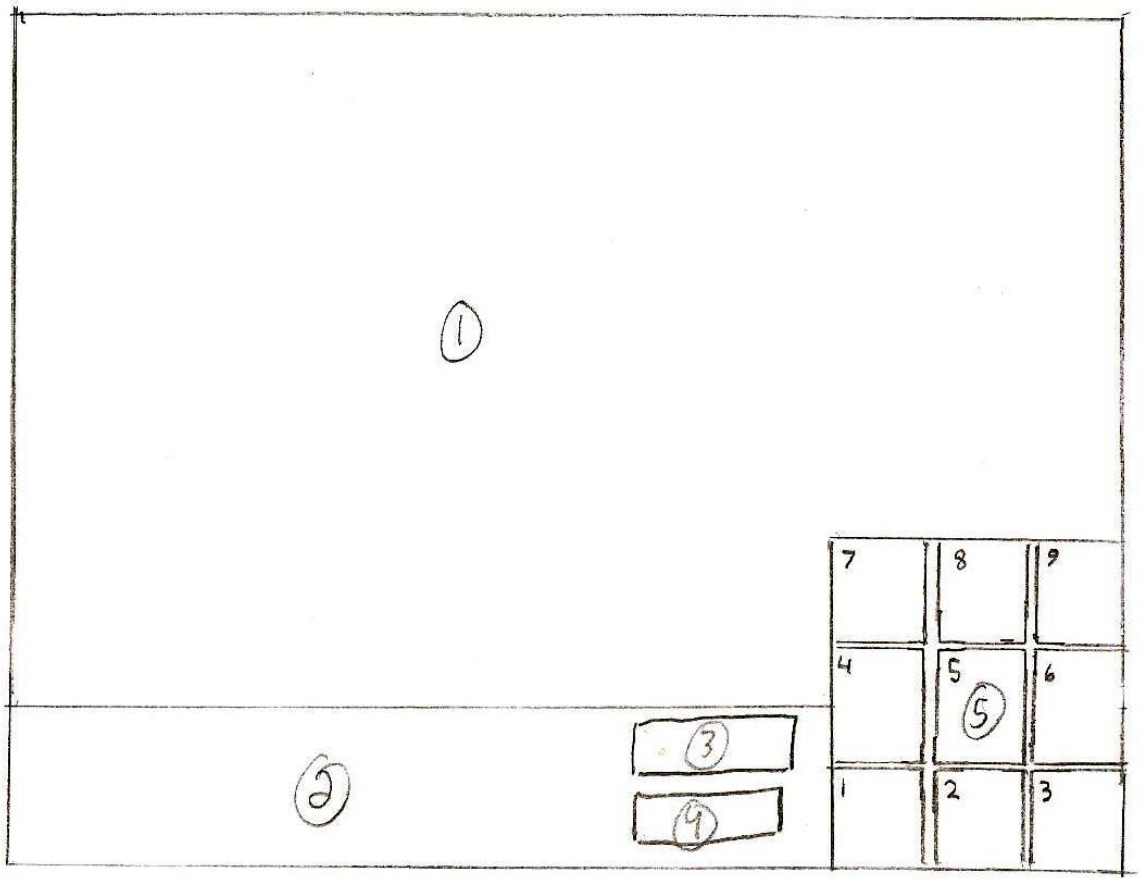
AI

Although there are not many AI objects in this game, there are a few, the most obvious being the hazard object.

- **Horizontal Hazards**: The two horizontal hazard objects could potentially become the same object. Their movement would be dictated by a hazard boundary object such that if they collide with this object (or detect it in their step event) they will reverse horizontal. The collision of the horizontal hazards with the robot would push the robot back in the opposite direction and reverse their horizontal direction.
- **Vertical Hazards**: The vertical hazard object would work much the same way as the horizontal hazard such that if it collided with or detected the boundary object, it would reverse vertical. Its collision with the robot however, would randomly push the robot left or right, whatever direction is the opposite of the direction it is facing and then reverse its own vertical direction.
- **Obj_controller_cb_crate**: In the first conveyor belt level, an object controller will be generating crates at an area at the top of the level. It will require two functions. First it must randomly generate a crate object at a certain position. Second, it must first check if that position is empty (i.e. check if there is no crate object).
- **Obj_thief**: There are two ways of programming this level. The first way is the way as described below in the storyline in which the thief runs right until he is either caught or runs outside the room. This option is easier to implement.
    - Event 'anykey' => hspeed = 6 (subject to change)
    - Step event => randomly generate crate behind self
    - Outside room => restart room
    - Collision with robot => change into object thief without dog
    - In thief without dog creation sets hspeed=8 and alarm 0 to 60 (may change). In alarm 0 => next room

  The section option is to have the level continue until the player catches the thief thus, make use of the wrap screen action. (In robot object have a way of detecting what level in. Using this option, the anykey, step, and collision events would be the same, but additionally, the thief would need to be able to detect what direction the robot was coming from and then run in the opposite direction and also be able to destroy its own crates as it encountered them.

Interface



1. Main view
2. Box where text and dialogue appear
3. Save button
4. Exit / Main Menu button
5. Display of available forms and their corresponding keypad numbers
6. *potentially include time played in upper left hand corner or somewhere on the text / dialogue box

The Story (expanded):

Level 1: Player enters on conveyor belt and activates after falling off and hitting ground. Either player moves or a certain amount of time passes and clunk appears sending player to tutorial.

Level 2: Tutorial. Instructions (as told by Clunk) appear on the bottom of the screen teaching the player how to navigate various features of the game.

Tutorial features:

- Left and right movement
- How to jump
- How to climb ladders
- Usefulness of crouching
- Small introduction to ice floors

End of tutorial, Clunk's monologue is interrupted and static occurs. Portal appears

Level 3: Same layout as level 1 only Clunk doesn't appear. Portal on right side of room leads to level 4.

Level 4: Empty robot city. Jump to third level to find portal to next level.

Level 5: Basic jumping level. Helps the player figure out the basic mechanics of the game.

Level 6: Introduces "hazards" which knock the player back if they are hit by them.

Level 7: Conveyor belt level. Levels of conveyor belts the player must navigate to reach the top of the level. Boxes will randomly hindering the player's progress as well as aiding the player. Since the gap distance between layers of conveyor belts is larger than the height the player can jump, in order to get from one level of conveyor belts to the next, the player must first jump on top of a box.

Level 8: Enter the freezer section. Small empty robot town. Filler level not necessarily included.

Level 9: Level where the wheel is obtained. After entering a short ways, a giant block falls behind the player and starts approaching the player at a speed faster than they can travel. Once they are hit the level is restart and at the beginning of the level several platforms appear. The player jumps to the top and enters a small building.

Level 10: Inside the building, the player sees Clunk. After a quick dialog, the player finds out its not Clunk, but his brother Clonk. He claims to not know what happened to all the robots since he was in the back room when it happened, but he lets slip that he was really sleeping in the back. Clonk tells the player that the big block is a sweeper that cleans the floors, but it has gone haywire since the robots that normally maintain it have gone missing. If gives you the wheel so you can outrun it. (For easier programming, level will be numbered as one of the last numbers so that the portal's programming is simply next level).

Level 9: Return to level 9 and outrun the block to reach the portal to level 11.

Level 11: Introduction of the icicle. Icicles are randomly generated at the top of the level and after a second they will fall to the ground. Icicles are a hazard

which will push the player back if they are hit. Simple ice level using ice floors. Player must navigate their way to the top of the level to find the portal.

Level 12: Level where the ice drill is obtained. Beginning of the level, the player finds themselves trapped as there is a giant ice block blocking their way. After a short time Clunk/Clonk appears. The player questions the robot if he is Clonk. The robot takes great offense to that saying that Clonk is his lazy, good for nothing brother and that he is Clank. When the player questions Clank if he knows what happened to all the robots, Clank appears surprised and has no knowledge of the events claiming he was deep in the freezer section removing ice buildup. He tells the player that as they are they will never be able to make their way through the freezer section and gives them the ice drill. He tells them how to use the drill and that it isn't efficient but it gets the job done. He then proceeds to destroy the ice block in front of you and goes on his way. Rest of the level is similar jump to the top level like level 11 but with added obstacle of ice blocks.

*Level 13: Potential level. Same style level as 11 and 12 with additional hazards to knock the player back.

Level 14: Most difficult ice level. The entirety of the level is a giant 'chasm' that, if the player falls into, will restart the level. The player must navigate across varying levels of ice floors to reach the other side of the chasm. The 'levels' of ice floor are nothing more than a cluster of 1-3 blocks of ice floor, so the player must move so as not to slide off the edge.

Level 15: Level where spring is obtained. Player finds themselves back in the regular factory. The room is filled with giant crates, however, they are all too tall for the player to jump on. In appears another robot looking much like Clunk/Clonk/Clank. Knowing that it's probably another brother, the player questions him if they have met before. The robot laughs and tells the player that they must have met one of his brothers and that his name is Clink. He tells them that they all look alike except for the color of their feet. Clink then goes on to explain that the player will never be able to proceed as they are and then gives the player the spring, explaining its pros and cons, before leaving. The player makes a mental note about the feet being a different color and wondering what color feet the previous three had. Level is a simple jump to the top level using the spring (a well deserved break after the previous level).

Level 16: Chase the thief. Level is a very long corridor. Upon entering the level, a weird creature is spotted holding a robot 'dog'. Upon seeing the player, he takes off running. The words "Chase the thief!!!" will appear in the text area. The goal of this level is the chase after the creature and catch (collide with) the thief. He is as fast (maybe faster) as the players basic form speed, so the wheel form must be used. To make it challenging, the thief will randomly generate small blocks the player must jump over. The blocks will be too big for the wheeled form to jump over so the player must turn into their basic form to jump over them. (Note: the one second freeze between changing forms may be negated for this level.) If the thief manages to reach the end of the level (i.e. run outside boundary), the level will be restarted. To win, the player

must collide with the thief causing him to drop the robot “dog” and then runs away. The ‘dog’ becomes an object in keypad ‘9’. (Note: If the player hits keypad ‘9’, text will appear in text box saying “nothing appeared to happen”.) The player will be moved onto the next level.

Level 17: Level where magnet is obtained. Player enters level to encounter another Clunk/Clonk/Clank/Clink brother. To conversation is initiated, but text of his mumblings appear in the text box. He mumbles about losing his pet and without it he’ll never be able to find his way home. Player progresses by hitting keypad ‘9’ while next to the brother. This initiates a conversation where he says he’s so grateful towards the player for finding his pet. As a thank you, he gives the player the magnet and explains how to use it. Before he leaves, the player asks his name and he says Clenk. Level is another chasm level and consists of levels of platforms far away from each other requiring the player to use the magnet to pull ladders closer and jump from ladder to ladder to get to the platforms.

Level 18: Level making use of the spring and magnet and including the use of conveyor belts.

The following are potential levels that will be included if time permits

Level 19: Upper rafters of the factory. Level where the glider is obtained. In beginning of the level, the player passes by a small building with a locked door. As the player continues on, they encounter another brother. Beyond the brother, the player can see a chasm with air rising up. The brother initiates conversation by saying that from the look on the player’s face, they must have met one of his brothers before. He introduces himself as Clynk (pronounced with a long ‘i’ sound) and tells the player that they can’t continue without crossing the chasm. He tells the player that crossing the chasm is an easy task for him but the player is one of those useless hover type robots whose purpose is looking pretty. He says with all his ingenuity he can make the player something to help them cross, but the materials he needs are in the warehouse (building passed earlier). He claims that he’d go himself, but the warehouse has collected so much dust, it constantly gets in his gears and inner workings making it impossible for him to move. He gives the player the key to the warehouse and tells them to collect three different materials and bring them to him and he’ll see what he can do with them. The player then goes back to the warehouse and (using the ‘E’ key) enters.

Level 20: Warehouse level. (*Note: level will work like the ‘level’ with Clonk where it will be one of the later levels so portal is programmed to next level.) The warehouse is an expansive, but basic level containing simply various levels of long platforms and ladders (moveable at places). The obstacle in the warehouse is dust balls that move from side to side on top of platforms that knock the player back if they are hit by them. These are easily avoided by jumping over them if timed right. There are several materials lying around in the warehouse and the player must grab three and bring them back to Clynk (they will be stored in the keypad ‘7’, ‘8’, and ‘9’ and work like the ‘dog’ did) to have them be either accepted or rejected.

Level 19: The player will be sent back to the warehouse until all three items are accepted. The three items desired are sheet (or tarp), several metal rods, and some bolts. Once he receives these three items, Clynk will claim he still needs one more item (a can of oil) and once the player brings him this, he will give the player the glider. The player questions what the fourth item is for and he says his joints needed oil. He explains how the glider works before leaving. Rest of level is basic descending from platform to platform to get to the bottom the level (could potentially jump to bottom of level if player knew where to jump).

Level 21: Level making use of the glider, but with added hazards. If glider crashes into a wall, player will fall into the 'chasm' and have to restart the level. Player will have to make use of updrafts to cross between hazards and not crash. At the bottom of the level (right before the portal), the glider will break making it unusable.

Back to implemented game

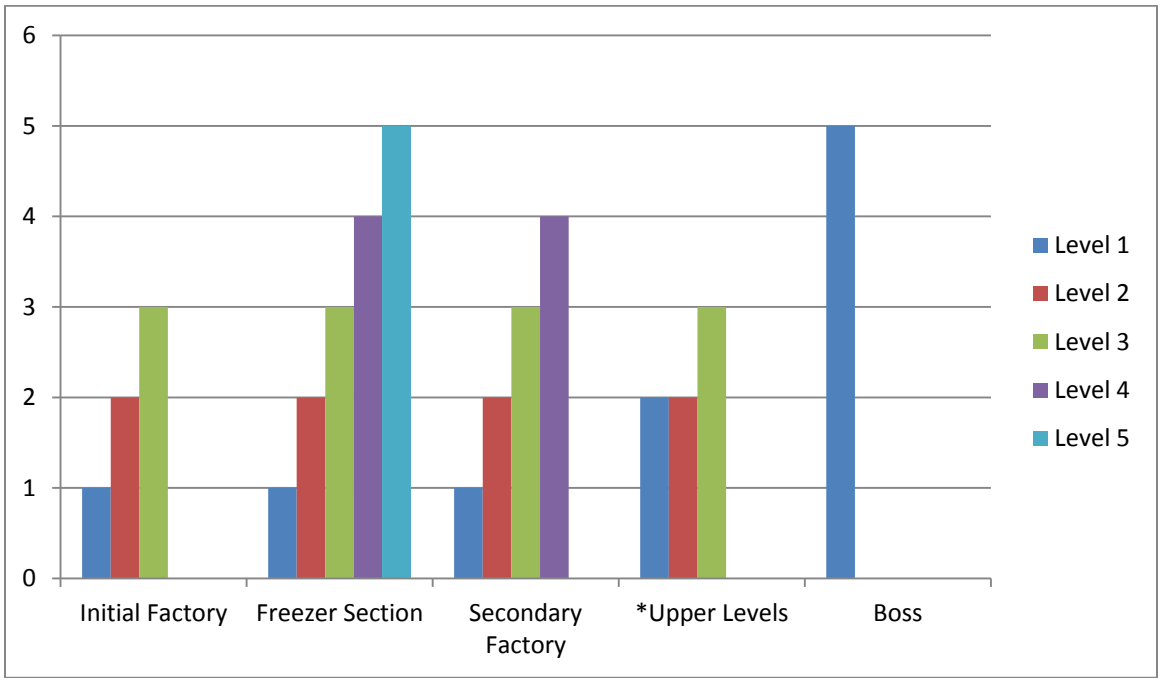
Level 22: Unknown second to last level where the player discovers what happened to Clunk and the other robots. Possibly some kind of boss (in league with the thief seen earlier) that the player will need to use all of the items they have obtained thus far in order to defeat. Another possibility is Clunk is the villain and in his monologue he goes on to say he didn't expect any newcomers that day and definitely didn't expect one to be worth the trouble of dealing with. He'd say that he didn't expect the player to be able to make it this far and then go on to explain is grand plan.

Level 23: If Clunk is not the villain (and if he is this will just happen in previous level after the player defeats him), he will approach the player and ask them why they came so far. The player will respond, "You never told me my name." At this point, the game will ask for the players name and their time to complete game will go in the high score.

Note: Time is an issue so some levels might not be implemented. If time becomes a real issue, the magnet will be eliminated as well.

Difficulty Scaling

The difficulty of the levels depends on what stage in a “biome” they occur or if a new vehicle is introduced. The three biomes of this game are the initial factory levels, the freezer levels, and the secondary factory levels. The fourth potential biome is the upper factory levels where the glider is used.



Note: Not all levels are included since several levels are for the story and don’t have any challenge in completing them.