My idea

Use this to summarize your idea, plan it using sketches, notes and pseudocode as needed

| **Github Username:** GilCarter10  **My Idea:**   * Whack–A–Mole game * Using Shy Guys from Super Mario as the moles * Shy Guys will pop up at different locations across 4 levels and you must hit them to score points * Goal is to get the highest score you can * A certain amount of misses makes you lose the game and return to the ready screen   **My Rough Documentation:**    (sorry about my handwriting, everything written is also typed in this document)  **Technical Drawing:** |
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Where will the inventory skills be demonstrated? List every one to be sure you’ve included them.

| * Shapes   + Skills 1-3 will be demonstrated through drawing the shy guys and the background * System   + setup() and draw() will be used in the main file to   + background() for the background colour which will stay constant   + constrain() to constrain the mouse position within the screen   + mousePressed() for whacking the shy guys   + increment operators for movement of shy guys up and down   + local variable will be used in for loops   + global variable score * Debugging   + println() will be used during debugging to see what code is running * Control Flow   + if mouse is clicked and(&&) mouse position is in range(boolean expressions) of shy guy position   + switch expressions will be used in if statements * Loops   + a nested for loop with a break will be used for repeating the grass pattern * Functions   + function drawing the grass backdrop (no parameters or return type)   + function that takes in # of misses as a parameter and checks if the minimum is reached for a loss, returns true/false (int argument + return type)   + function that takes in shy guy object and changes its color (object argument) * Classes/Objects   + Shy Guy Class with a constructor function to update   + New shy guys will be instantiated with ‘new’   + constructor function that takes in PVector as parameter and randomizes shy guy position * Lists   + I will use an array for potential game over phrases, one will be randomly selected and displayed when you lose   + Array List for Shy Guy objects   + Will be accessed and increased over time * Vectors   + PVector class for position and speed for each shy guy object   + Find distance between mouse position to a shy guy   + Random 2D vector will be made and used   + I will experiment with the mult() or add() function to increase the speed of PVector for the shy guys | | | |
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| **Milestone 1** | **Milestone 2** | **Milestone 3** | **Milestone 4** |
| *What will I deliver?*  All the shapes and drawing for the game will be complete as well as a prototype of the shy guy class with a constructor function. | *What will I deliver?*  Begin to workshop the mousePressed() mechanics. I will hopefully have the movement of the shyguys completed by this point. | *What will I deliver?*  This milestone is more organizational than functional. Organizing objects into an ArrayList, creating functions, etc. If possible I will submit my final game at this milestone. | *What will I deliver?*  I will deliver the completed game by this milestone (if it hasn’t been by milestone 3) complete with all the skills in the skills inventory showcased. |
| Inventory Skills: | Inventory Skills: | Inventory Skills: | Inventory Skills: |
| #1 shapes | #6 constrain() | #17 nested loop | #39 PVector for position |
| #2 fill/stroke | #7 mousePressed() | #18 break() | #40 find direction/distance between 2 points |
| #3 shape modes | #8 increment operators | #21 function with return type | #41 size() |
| #4 setup(), draw() | #9 local variable | #23 function with a int argument | #43 mult(), add() |
| #5 background() | #10 global variable | #24 function with a object argument |  |
| #16 for loop | #11 println() | #33 array |  |
| #20 function, no parameters, no return type | #12 if statement | #34 ArrayList |  |
| #28 class | #13 boolean expressions | #35 objects in ArrayList |  |
| #29 new class | #14 logical operators (&& ||) | #36 random 2D vector |  |
| #30 constructor function with parameters | #15 switch statement | #38 PVector class |  |
|  |  |  |  |
| You should deliver approx. 10 skills at this milestone | You should deliver approx. 10 skills at this milestone | **You must deliver 30 inventory skills by this milestone.** |  |