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| **Y8 DODGEMS TASK SHEET**  *Think about fairground Dodgems. The idea is actually to avoid hitting the other cars!*  *Think about how you control a real dodgem car: the steering wheel permits turning left and right; the single pedal allows you to move forward; releasing the pedal makes you slow down; and, there is no reverse.*  *The Scratch files given have 4 cars and other graphics. The red car should be controlled by you. The other cars should be computer controlled. There are comments in the code to get you thinking about what to do.* | | |
| **TASK** | | Done? |
|  | **Help file 1 shows you one way of making the red Player 1 car move using the arrow keys. A variable is used to store the speed. Test this out and make sure you understand how it works.** |  |
| ***Problems: – There are no limits on forward speed or reverse speed. This makes the car uncontrollable. Use if statements to set limits.*** |  |
|  | **Help file 2 shows you one way of making the red Player 1 car bounce off the walls and other cars.** |  |
| ***Problem: – Build this idea into the code you’ve already got from 1. You’ll also need to use this idea for the other three cars.*** |
|  | **Help file 3 gives the skeleton of code to make the other cars move randomly and bounce off the walls.** |  |
| ***Problem: – Finish the code! Read the comments carefully and try to build the code required.*** |
|  | **Add in a scoring system. The longer you drive without hitting anything the more points you get. Hitting something loses points!**  *Hint – use a variable for the score.* |  |
| ***Problem: Make the score increase faster if the car is travelling faster.*** |  |
|  | **Make the game stop if the score drops below a certain number.** |  |
| ***Problem: Make the game tell the player that they lose if the score drops to a certain number.*** |  |
|  | **Make the game stop if the score goes above a certain number.** |  |
| ***Problem: Make the game tell the player that they win if the score goes above a certain number.*** |  |
|  | **Add a second player controlled car to the game for a second player.** |  |
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| ***Problem: You will need to adjust the score variable as if you want the players to compete against each other, rather than work together, you need to have two separate variables. Also you will need to work out how to make the extension notification for part 7 say who has won. Perhaps you could remove the extension for part 6, or make that car stop moving if they get too low of a score.*** |  |