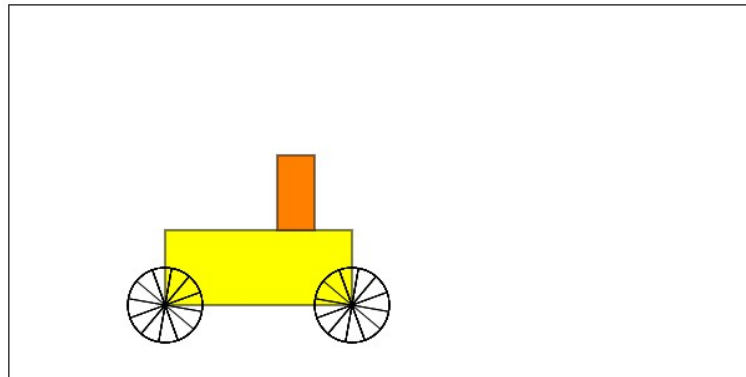


## Web Design

### Canvas #8 – Hot Wheels

Objective: Use the HTML5 canvas object and Javascript to create a wagon that moves.

1. In your WebDesign folder, create a folder titled *first\_last\_canvas\_8*. Open your *canvas\_template.html* file and save it in your *first\_last\_canvas\_8* folder as *canvas\_8.html*.
2. Edit the *canvas\_8.html* file
  - a) Change *CHANGE ME* to *First Last - Canvas 8*
  - b) Change the width of the canvas to 650 and height to 300.
  - c) You must draw the following wagon and make it move across the canvas. It should start completely off the canvas on the left and move until it is completely off the canvas on the right. It should then start off the canvas on the left again.
  - d) The wheels must rotate. They must be the same size.
  - e) You should use variables for the radius of the wheels, the x position of the back wheel, the rotation angle of the front wheel, the rotation angle of the back wheel, and the width of the body of the wagon. Which of these should be constants?
  - f) Use constants for the colors.
  - g) You must use a for-loop for drawing the spokes on the wheels. The for-loop should execute 10 times (drawing 10 diameters.) What angle should be rotated?
  - h) You must use the context *save*, *translate*, *rotate*, and *restore* methods.
  - i) You may choose your own colors for both the interior and outline of the body of the wagon, and the interior and outline of the smokestack. The wheels should be black.



3. Zip your *first\_last\_canvas\_8* folder. Turn in your *first\_last\_canvas\_8.zip* file.