**1. Propose an interactive experience that you want to create.**

- We want to create the experience of driving a car down a rainy and foggy street of a city. I assume it is between a game/interactive art. (Comeback.) We want to implement driving controls like forward/backward and turning left/right. The goal is we want you to feel the experience of driving a car down a rainy road.

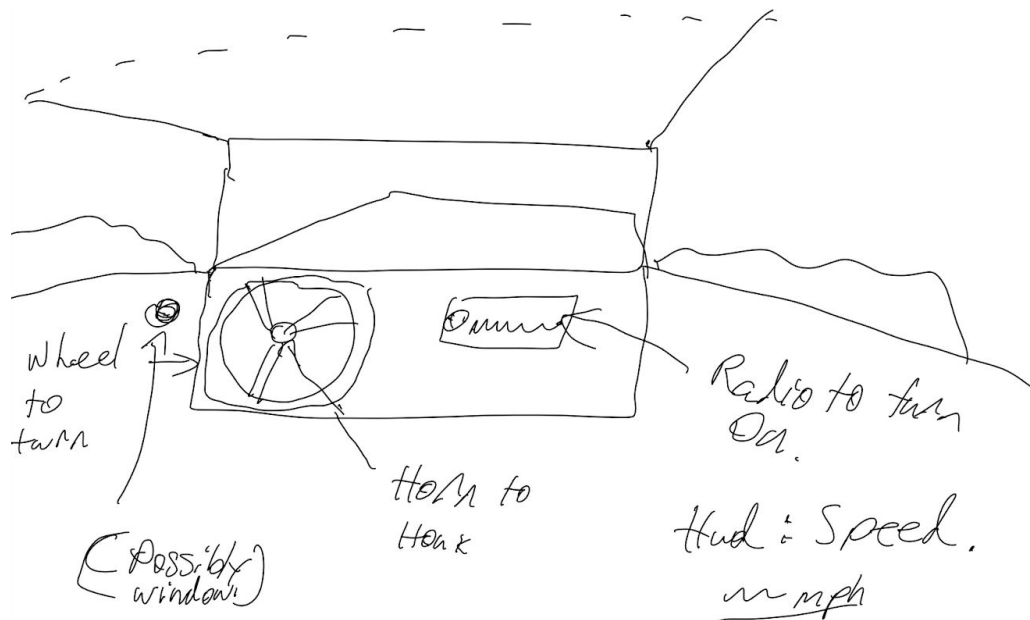**2. Design how the user will interact with the objects in your interactive experience.**

- The user will interact with multiple objects. The user will be able to interact with the car wheel by turning the wheel with using the A and D keys. The wheel is the circle outside of the inner yellow circle. Turning the wheel with the A and D keys will also turn the car itself either left or right. This interaction changes the position of the car object and user object. The rotation of the cars orientation, is the visual feedback. Also, the user will be able to interact with the car by using the keys W and S. These keys move the car forward in some direction or backwards in some direction. The car object changes its positional orientation and possibly some sound to indicate to the user that the car is moving. The user is also interacts with the horn, which outputs a horn sound. The interaction happens when the user clicks the horn with the cursor, which is the yellow circle inside the bigger circle, which represents the wheel. Then there is the radio that can interact in 2 ways. The circle shape of the radio changes the sound that is currently playing on the web browser. This circle of the radio is interacted by clicking on it. Clicking the radio button changes the audio playing, which signifies that has been pressed. The last interactable object is the square button over the radio, which turns the audio playing on or off. It is interacted by the user by clicking the red button, with the the cursor. The visual feedback to the user is the switching of colors of the button from red to green (when the radio is turned on) and green to red (when the radio is turned off).
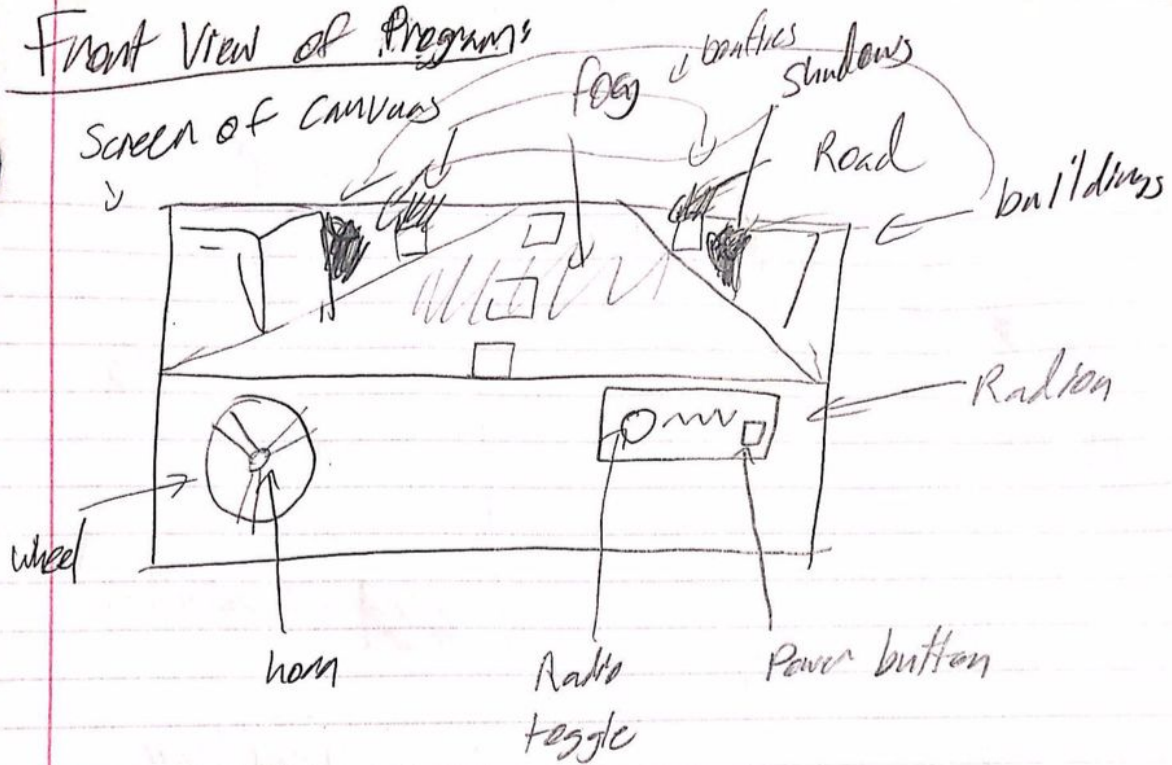
**3. Design how your world will look like.**

- The visual style of the world is realistic. The world we want to create a realistic world of someone driving down a road a dark and foggy road. I guess a visual reference would be the fogginess and quietness of Silent Hill and the setting is similar to Sin City where all the buildings are black and dingy.

- In order to get this look, we need to implement shadows and fog to get the kind of Silent Hill quiet aesthetic. The shadow will give the effect of the headlights of the vehicle a more stark effect on the buildings of the city.
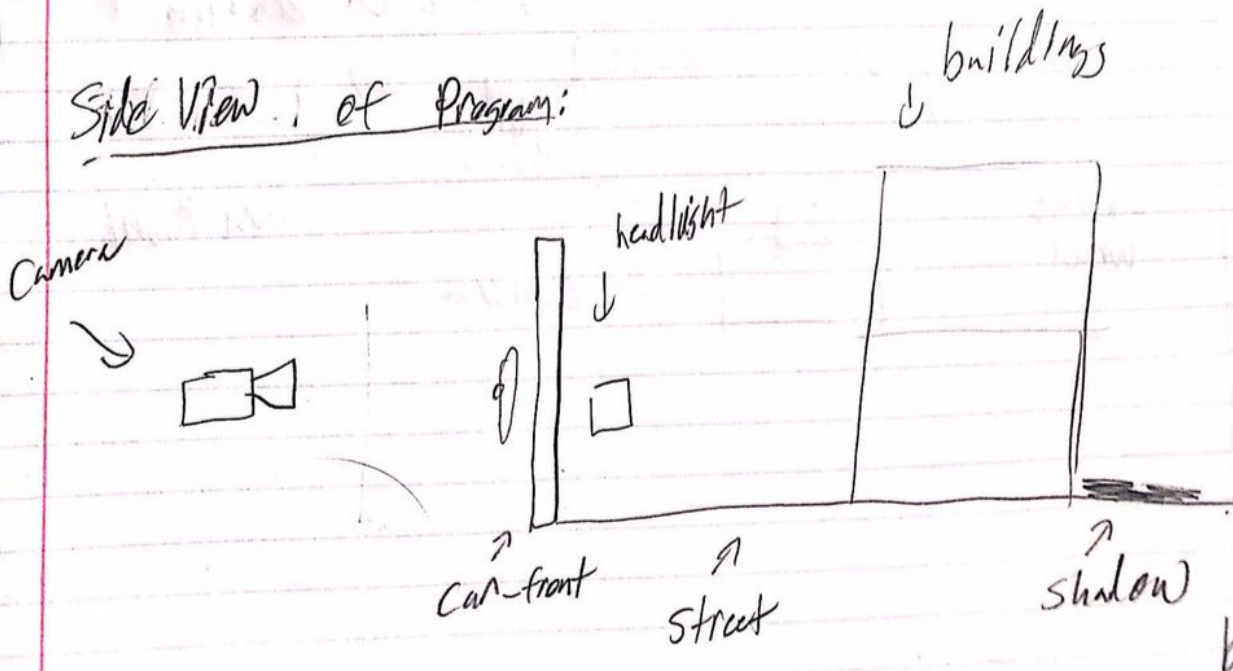
**4. Find 2 computer graphics techniques per team member to implement the interactivity and visuals you proposed. Here is a list of technique examples:**
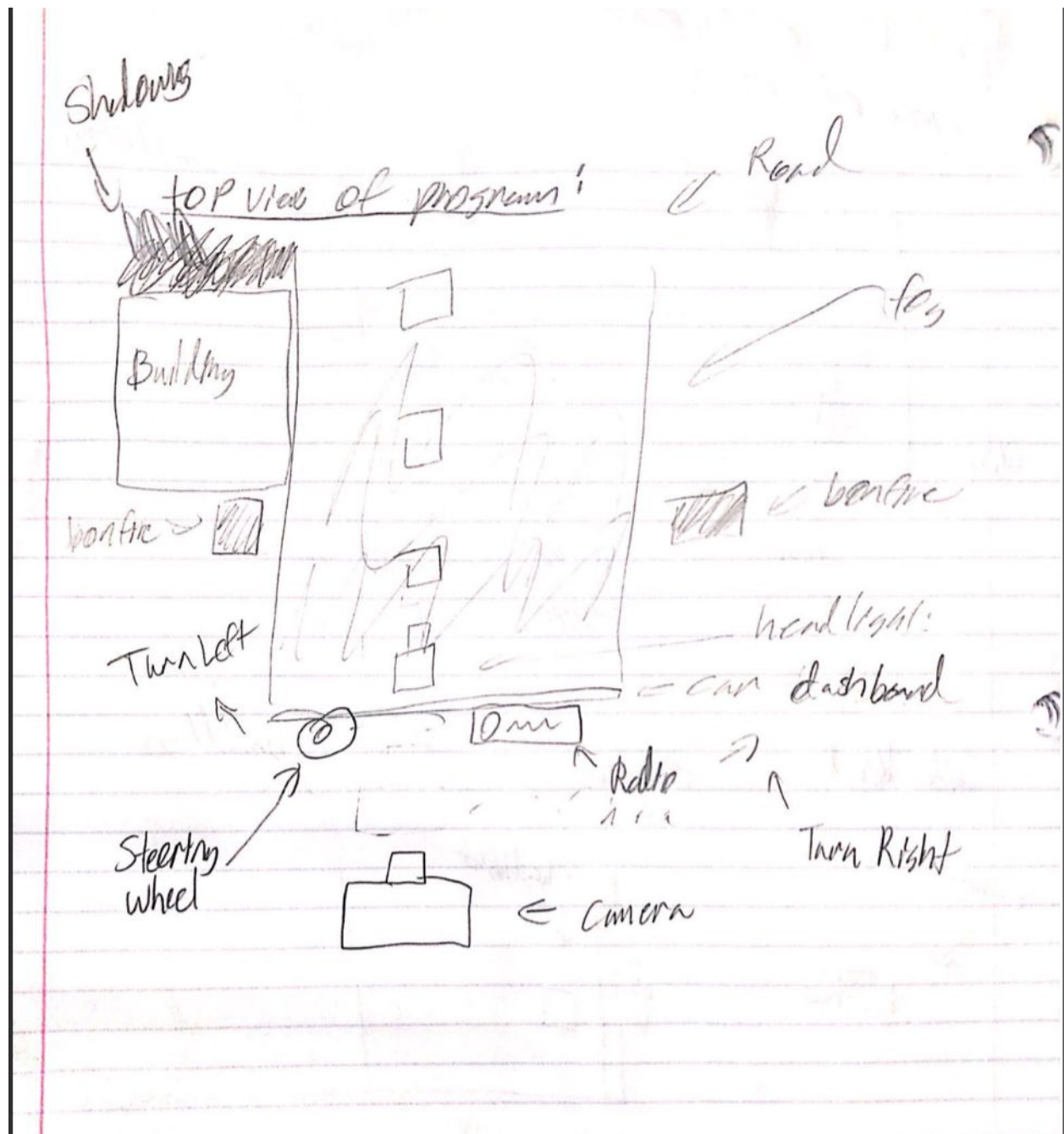


Wheel to turn

(Possibly window)

Horn to Honk

Radio to turn On.

Hud = Speed.

~ mph

# Front View of Program:

Screen of Canvas ↓

fog ↓ traffics

Shadows ↓

Road

buildings ←

Radio →

wheel →

horn

Radio toggle

Power button

# Side View of Program:

buildings ↓

Camera ↓

headlight ↓

Car-front ↗

Street ↗

shadow ↗

Computer Graphics Advanced Techniques:
- **Heads Up Display (HUD)**:
    - I am planning to use the Head Up Display to the speed of how fast the vehicle is going. The speed goes up linearly from 0 to some maximum speed. The number counter that counts up the speed of how fast the car is going to be either on the bottom or top corners, which is out of the way of line of sight. The HUD will also display the direction of where the car is

facing. Like the directions can be N, E, S, W, NW, or etc.. This can also be on the opposite side of where the speed of the vehicle is located.

- **Atmospheric Fog:**
  - The fog is used in this program to kind of give the illusion of a bigger world than there actually is. The fog is going to be thick enough, so that you won't be able to see the end of the world, but the fog won't be so thick that you don't know where you're going.
- **Shadows:**
  - The shadows are going to be used to make the headlights of the car more realistic with the surroundings. For example, when the car headlight hits the edge of a building or object, the effect that we would want is a shadow of the building that crosses the ground where the headlight is blocked by the building. This effect will make it seem that the headlights are more realistic and tangible, because their light effect can be blocked by certain objects that are in the way.
- **Fire Effects:**
  - The fire effect will be used in the program to better navigate the world. Throughout the world, we want to place little bonfires that use this fire effect to help guide the player on where they want to go. Since, the program is going to be foggy and dark, we want to have some light, so the user can have an idea of where to drive. The fires will be on the side of the road and there will be 2 on either side of the road, so the user knows to drive in between both the fires. Also, the fire effects give the aesthetic of a world like Sin City, where the city is very dingey and dangerous, hence the dumpster fires on the side of the road.

- Other Things to Get Down:
  - Need to put in better textures for the wheel, buildings, and radio.
  - Need to implement the interactions for the radio and horn like the audio and other things.
  - Need to get the headlights working.
  - Need to create the map of the buildings for the car to drive through.
  - Need to fix the transformations of the car like going forward and turning.

How to Interact:
- For the program right now:
  - If you click the yellow circle on the dashboard, a message come up saying honk.
  - If you click the orange circle on the radio, it will also put up a message saying that the "audio is changed".

- If you click the red square, it will also put up a message saying that the "radio is turned on".
- Those are the features so far. In the next week a number of other interactions will be implemented.