

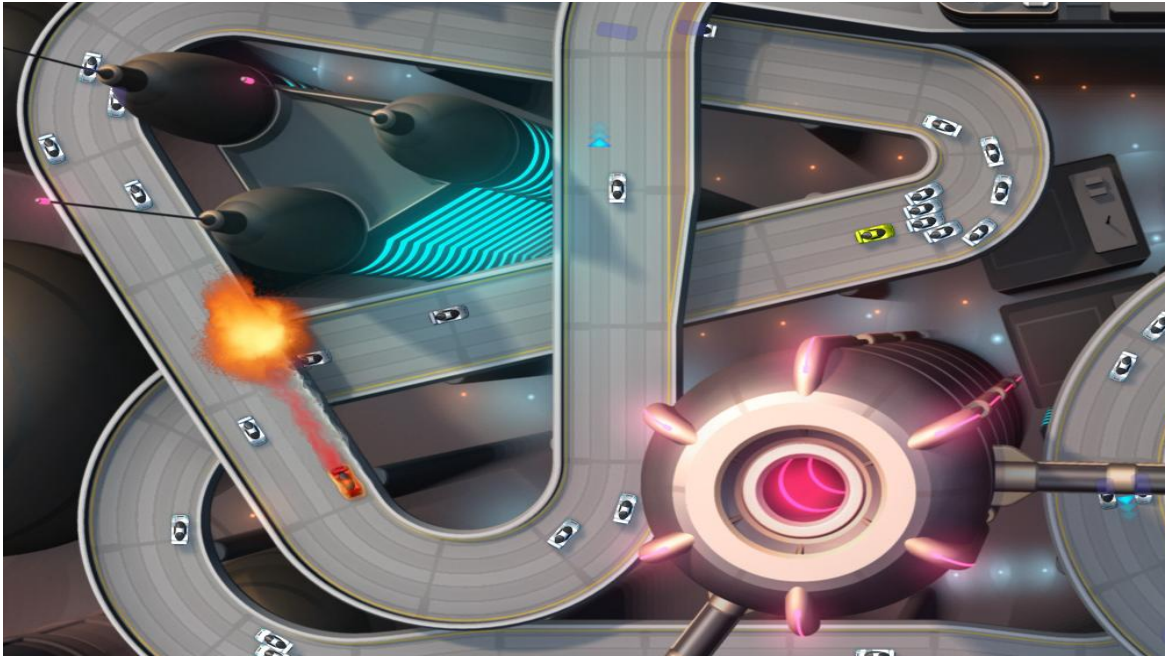
## CS426 Game project proposal

Team name: Lone Wolf  
Team members: Me (Moustafa Ismael)  
Game name: Twisted Rubber  
Proposed work:

1. **Provide an overview of your game (give a short description about the game, i.e., game plot, objective, etc.):**
  - a. This game is a remake of the classic PlayStation game Twisted Metal. The game is centered around a police officer who has made it his mission to take down the largest illegal car and weapons smuggling mafia in New York. And how do you catch the best drivers and shooters in the city? By loading your car with weapons.
  - b. Each player controls a car which has special weapons mounted on to it. Players can unlock different weapons as they progress through the game or by picking them up during a game. The objective of the game is to be the last car standing.
2. **What are the characters and their resources (e.g., health points, number of characters, weapons, etc.) in the game? What are the behaviors of the characters and how do they interact with each other and their resources?**
  - a. There are 3 cars to choose from. A speedster, a muscle car, and a pickup truck.
    - i. Speedster:
      1. Extremely Fast
      2. Easy to ram
      3. Low Health Points
      4. Can hold a large amount of fuel before running out.
    - ii. Muscle Car:
      1. Strong body
      2. Intermediate Health
      3. Extremely Fast but harder to control
      4. Moderate Fuel Consumption.
    - iii. Pickup Truck:
      1. Extremely strong body (High Health)
      2. Very slow moving
      3. Can lay spikes
      4. High Fuel Consumption
  - b. The health bars are not shown but cars begin to smoke as they near their death. Each player starts off with a machine gun. As players gain points they unlock different weapons:
    - i. Power Missile
    - ii. Heat Seeking Missile
    - iii. Cannon
    - iv. Proximity Mines
    - v. Spikes
3. **What types of conflicts do you have in the game?**
  - a. Each game consists of 2 to 6 players. Each player controls his own car and tries to destroy the others by using different weapons at his disposal. Cars shoot a different array of weapons at each other, when a car's health depletes it explodes. Cars can pick up special weapons like missiles and spikes. They can also pick Turbo Boosters to make them go faster.
  - b. At the center of each map there is a mechanic shop which replenishes the car's health.
  - c. At each corner of the map there is a refueling station for cars to refuel their gas tanks.

4. Provide sketches/drawings to show how your game will be played. (Attach to this page)

- a. Below is the game Space Junk Racers. It is a racing game where cars have the ability to use a super powerful turbo booster.



- a. This game is called "Smash Cop" and this is how I want the game to look, with the same look and feel except in 2D, by using different shadows and art.



5. What is the main language you will use to implement the game?

- a. I will be using Java mainly, and C for computation heavy math.

6. What tools/libraries you will use?

- a. I am using the AndEngine Game Engine made for the Android mobile devices. It has built-in support for Multiplayer, Tiled Maps, and Physics which is a big plus.

7. What types of user interface will you provide/use?

- a. The interface will be the touch events since the game is mobile. The User will use a virtual "joystick" on the left which is for steering the car. There will be 2 buttons on the right for "Fire" and "Switch".
- b. The User selects the weapon he wants by pressing the "Switch" button during gameplay. He then fires it using the "Fire" button. This keeps the game simple and easy to pick up.

- c. When the player has enough kill streaks for an aerial strike a button will appear at the bottom right corner.

**8. What are the milestones you plan to have? Please give a short description and an expected finish time each for milestone.**

- a. Hopefully there will be four big milestones (1 each month):
  - i. First milestone: Visuals
    - 1. **Week 1:** Chose Game Idea
    - 2. **Week 2:** Chose Game Engine
    - 3. **Week 3:** Set up Top-Down Tiled Map and Vehicles
    - 4. **Week 4:** Find multiple phase car (ie: clean, damaged, wrecked) and weapon sprites.
  - ii. Second Milestone: Game Logic
    - 1. **Week 5:** Create 3 cars each with Health, Handling, and Armor
    - 2. **Week 6:** Finish animations for each car phase, ie Clean, Damaged, Wrecked.
    - 3. **Week 7:** Set up collision detection for machine gun bullets and explosions
    - 4. **Week 8:** Create gas refueling stations and mechanic shops on map
  - iii. Third Milestone: Game Physics and Networking
    - 1. **Week 9:** Set up physics for cannon lobbed shot.
    - 2. **Week 10:** Create physics for explosions near cars
    - 3. **Week 11:** Set up a game lobby for people to play online
    - 4. **Week 12:** Finish Game lobby and network
  - iv. Fourth Milestone: Menu Screen and High Scores
    - 1. **Week 13:** Create a Game Menu
    - 2. **Week 14:** Create the High Score screen
    - 3. **Week 15:** Weapon Selection Screen
    - 4. **Week 16:** Game Test and Deploy ☺

**9. What are the difficulties/challenges do you foresee? How do you plan to address them?**

- a. The biggest difficulty is creating or finding good 2D game sprites and Map Tiles.
  - i. Including the different animations for explosions, missiles, and car wrecks.
- b. Another big problem will be setting up a networked game lobby for people to play each other.

**10. How would you divide the tasks among your team members (if more than one)?**

- a. If my team consisted of two individuals, I would have one person work on the physics and animations for the vehicles and strikes and one person to work on the game logic.

**11. Why do you think your game is interesting/exciting?**

- a. The game is really easy to learn and pick up easily. No manual required or long directions. It's fast paced and users get to upgrade their vehicles and weapons and compare their scores to other users, a successful game concept.

**12. Do you model your game after an existing game? If so, what is it?**

- a. Yes. The game is modeled after Twisted Metal, hence the name. Twisted Metal was different because it broke the thought that car games had to be racing. It included action plus driving cars.