**A close up of a sign

Description automatically generatedTime Needed: ~ 5 mins**

**Draw the track:**

Solid green background

Circles for track / inner track

White line for start / stop

Other color (blue?) for “boosts”

**Time Needed: ~ 5 mins**

**Create the vehicle:**

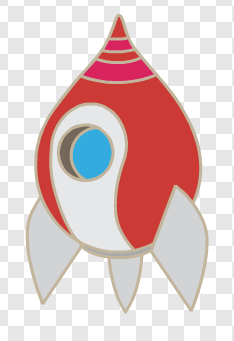
Create the sprite

One for driving, one for crashed

Start with existing Scratch one

**Time Needed: ~ 15 mins**

**Write the code**



A picture containing vector graphics

Description automatically generated**Events ->** When [flag] clicked

**Looks ->** Switch costume to [costume1]

**Motion ->** Point in direction 90 (right)

**Motion ->** Go to x/y coordinates

**Looks ->** Say (3) for 1 second

**Looks ->** Say (2) for 1 second

**Looks ->** Say (1) for 1 second

**Control ->** Forever (explain “while” loop)

**Motion ->** Move 2 steps

A picture containing indoor, wall

Description automatically generated**Control ->** If / then **(Case: Crashed)**

**Sensing ->** Touching color (green)

**Looks ->** Switch costume to (crashed)

**Control ->** Stop all

**Control ->** If / then **(Case: Boost)**

**Sensing ->** Touching color (blue)

**Motion ->** Move 5 steps

**Control ->** If / then **(Case: Winning)**

**Sensing ->** Touching color (white)

**Looks ->** Say “You won!” for 2 seconds

**Control ->** Stop all

**Steering Controls:**

**Events ->** When (right arrow) key pressed

**Motion ->** Turn (right 15 degrees)

**Events ->** When (left arrow) key pressed

**Motion ->** Turn (left 15 degrees)

**Walk through different logic steps while coding:**

**Questions to ask the kids / scenarios to walk through:**

**What happens when you start the game?**

X / Y start coordinates, direction that car is facing, car needs to be not crashed, etc.

**What about moving forward?**

Explain how “forever” block works, explain that 2 steps forward controls speed

Get them to change speed to see how this changes the game

**What about steering controls?**

Add the “listeners” for the left / right keyboard arrows, explain that the 15 degrees can be modified. Ask them to change the values

**What about crashing? How do they know they’ve crashed?**

Touching green color – explain how if / then statement works, and how that causes game to stop

Change the car’s costume to signify that they’ve crashed

**What about “boost”? How do they know they’ve touched a boost? How do we make the car go faster?**

Touching blue color – re-affirm how if / then works and have them give different boost values

**What about winning? What signals that you’ve won the game?**

Touching white color – end game and display message