SceneSketch

User Manual

Draw a to-scale crash-scene diagram in your browser - roads, vehicles, people and roadside objects - and save it as a picture. Nothing to install, and nothing you draw is sent anywhere.

Website: **bad-marine-crash-diagram.fly.dev**

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Bad Marine LLC

Contents

1. **Welcome to SceneSketch**
   What it does, privacy, the public demo and licensing
2. **The screen**
   Controls, the diagram, the north indicator, phones and tablets
3. **Laying out the roads**
   Quick presets, single road pieces, street names
4. **Vehicles and people**
   Placing, labeling, coloring and turning them
5. **Roadside objects**
   Signs, poles, barriers and other fixed objects
6. **Text labels**
7. **Moving, turning and deleting**
   Working with anything on the diagram
8. **Saving your diagram**
   Export PNG
9. **A worked example**
   A rear-end crash at a signalized intersection, start to finish
10. **Quick reference and known limits**

1. Welcome to SceneSketch

1.1 What it does

SceneSketch is a crash-scene diagram tool that runs in your web browser. Build the road layout, drop in the vehicles, people and objects involved, turn them to the way they were facing, label everything, and save the finished diagram as a PNG picture you can attach to a report, an email or an insurance claim.

- **Drawn to scale.** A lane is 12 feet wide, and every vehicle is drawn at its real-world size - a semi is longer than a bus, a bus is longer than a car - so the diagram shows how things actually fit together.
- **Quick to start.** Pick an intersection, curve or roundabout and SceneSketch draws the whole road layout in one click.
- **Works anywhere.** A computer, tablet or phone, with a mouse or a finger. There's nothing to download or install.

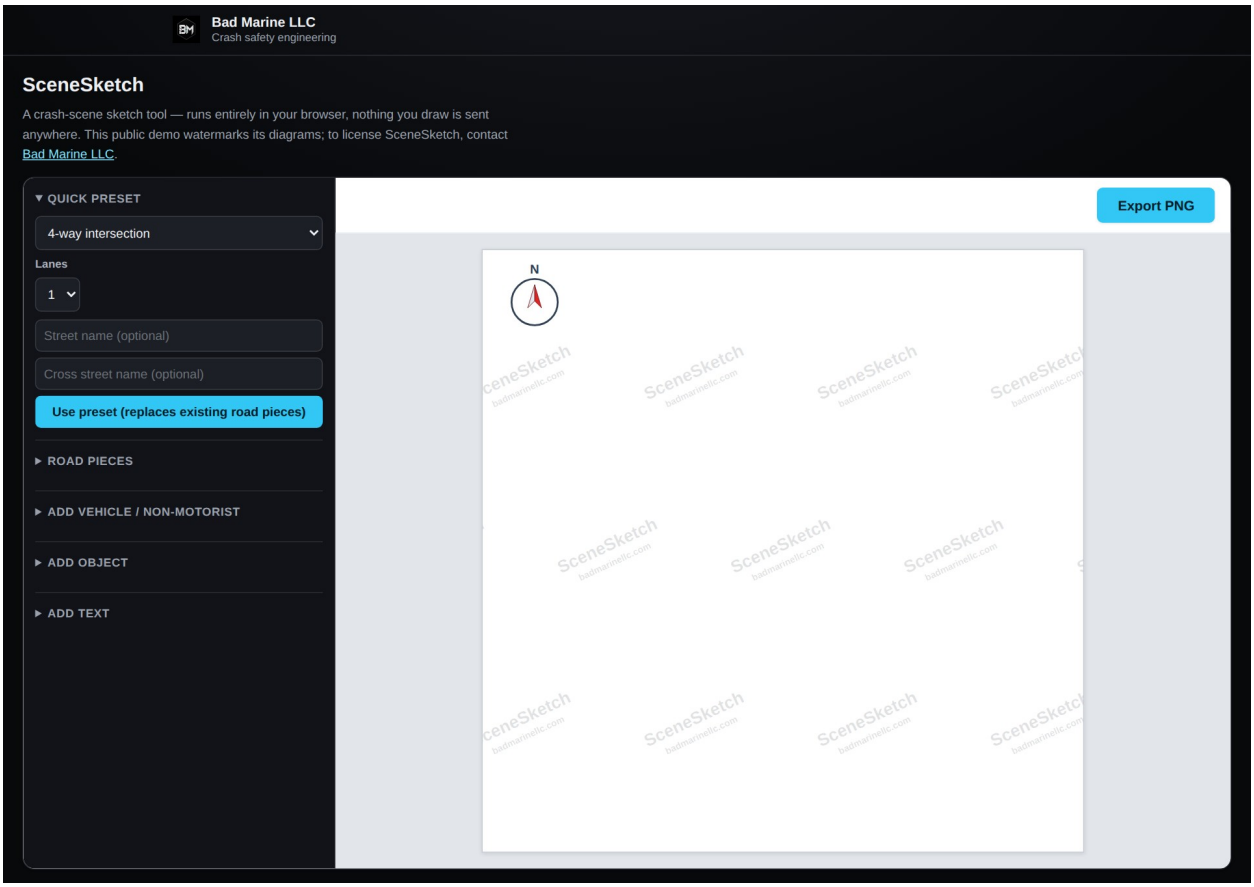
1.2 Privacy

Everything happens in your browser. Nothing you draw is sent to Bad Marine LLC or anyone else, and nothing is stored on a server. The flip side: SceneSketch doesn't keep your drawing either - see section 8.

1.3 The public demo and licensing

SceneSketch is a commercial product, licensed through Bad Marine LLC. The public site at **bad-marine-crash-diagram.fly.dev** is a demo you can try with every feature, but its diagrams carry a light, repeating **SceneSketch / badmarinellc.com** watermark, on screen and in every exported picture.

A licensed copy exports watermark-free diagrams. To license SceneSketch - for an agency, an insurer, or a team, or to build into your own software - contact Bad Marine LLC at **Sean@badmarinellc.com**. The same drawing tool is also built into the Mobile Driver Report app (as its Diagram step).



SceneSketch when it first opens

2. The screen

The screen has two parts:

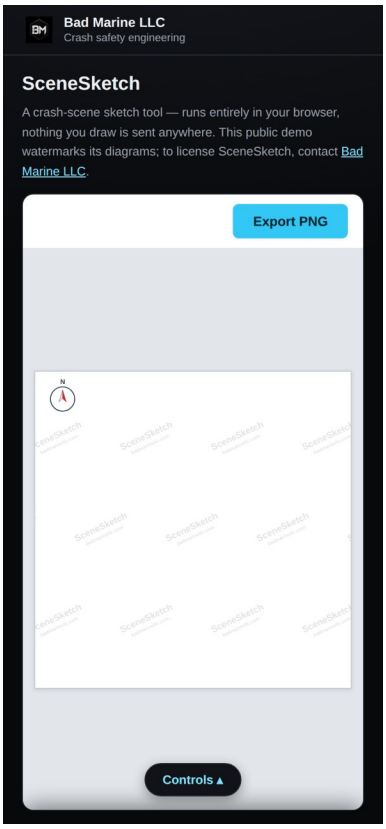
- **The controls** on the left, in five sections - **Quick Preset**, **Road Pieces**, **Add Vehicle / Non-Motorist**, **Add Object** and **Add Text**. Click a section's title to open or close it.
- **The diagram** on the right - the white drawing area - with the **Export PNG** button above it. Hints appear next to Export PNG while you're placing or working on something.

2.1 The north indicator

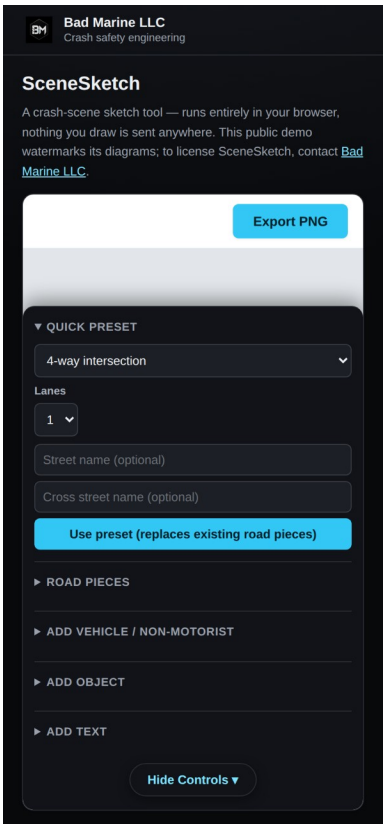
Every diagram starts with a north arrow in the upper-left corner, pointing up. If north isn't up in your drawing, drag the arrow to turn it. It stays in the corner and is included when you export.

2.2 Phones and tablets

On a narrow screen the diagram fills the page and the controls tuck away. Tap **Controls ▲** at the bottom to open them and **Hide Controls ▼** to put them away. When you tap **Place on diagram**, the controls close by themselves so you can tap the spot on the diagram.



On a phone



Controls open

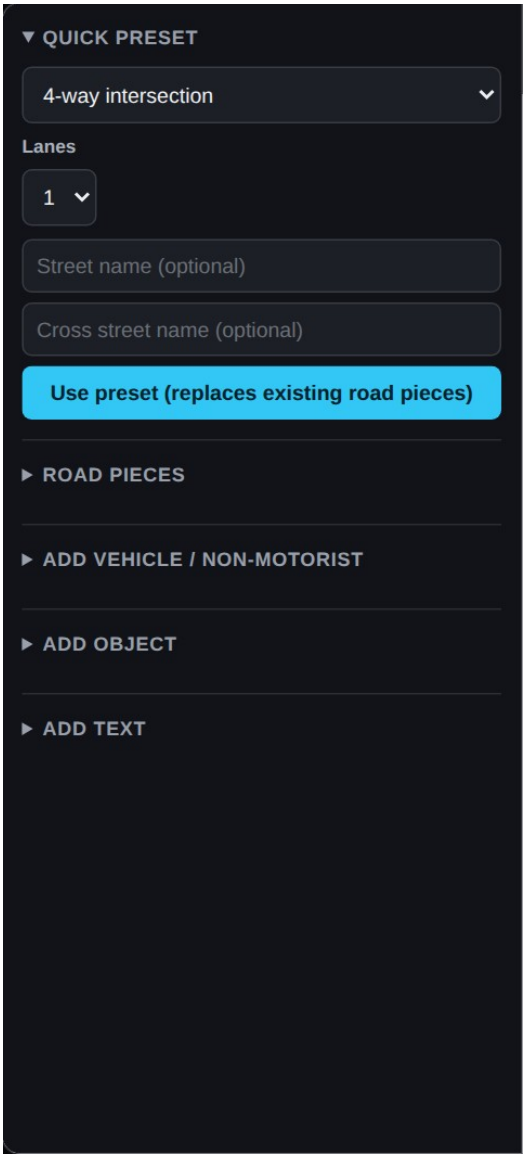
3. Laying out the roads

Most diagrams start with a **Quick Preset**. Use **Road Pieces** to add to it or to build an unusual layout piece by piece.

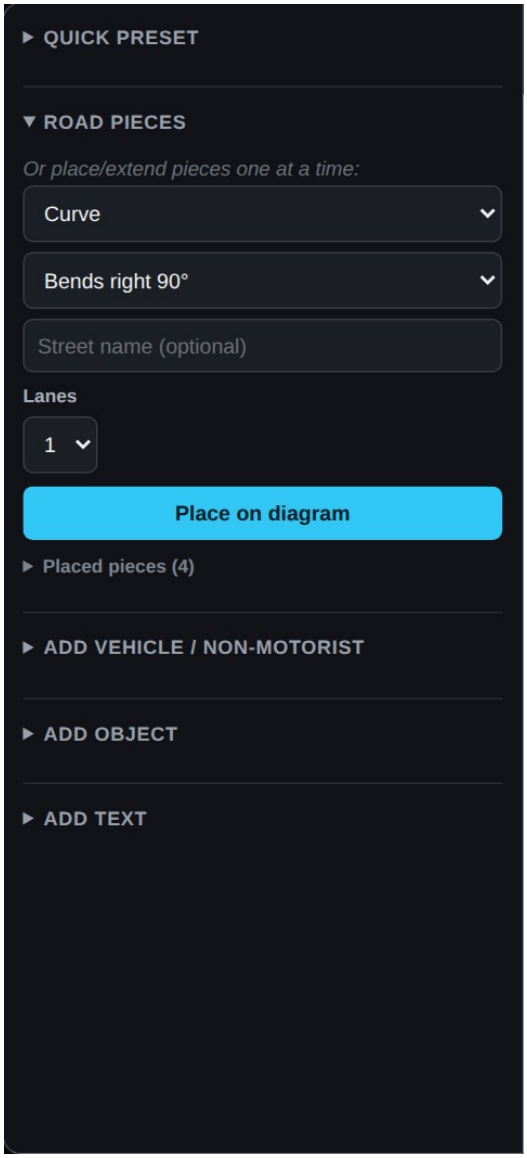
3.1 Quick Preset

1. Open **Quick Preset** and pick a layout: **Straight road**, **90° corner**, **Curve**, **T-intersection**, **4-way intersection** or **Roundabout**.
2. Pick the number of **Lanes** (1 to 4). For a roundabout, also pick its **Circulating lanes** (1 to 3); **Approach road lanes** is then the number of lanes on the roads coming in.
3. Type a **Street name** if you like. Intersections and roundabouts also have a **Cross street name**.
4. Click **Use preset (replaces existing road pieces)**.

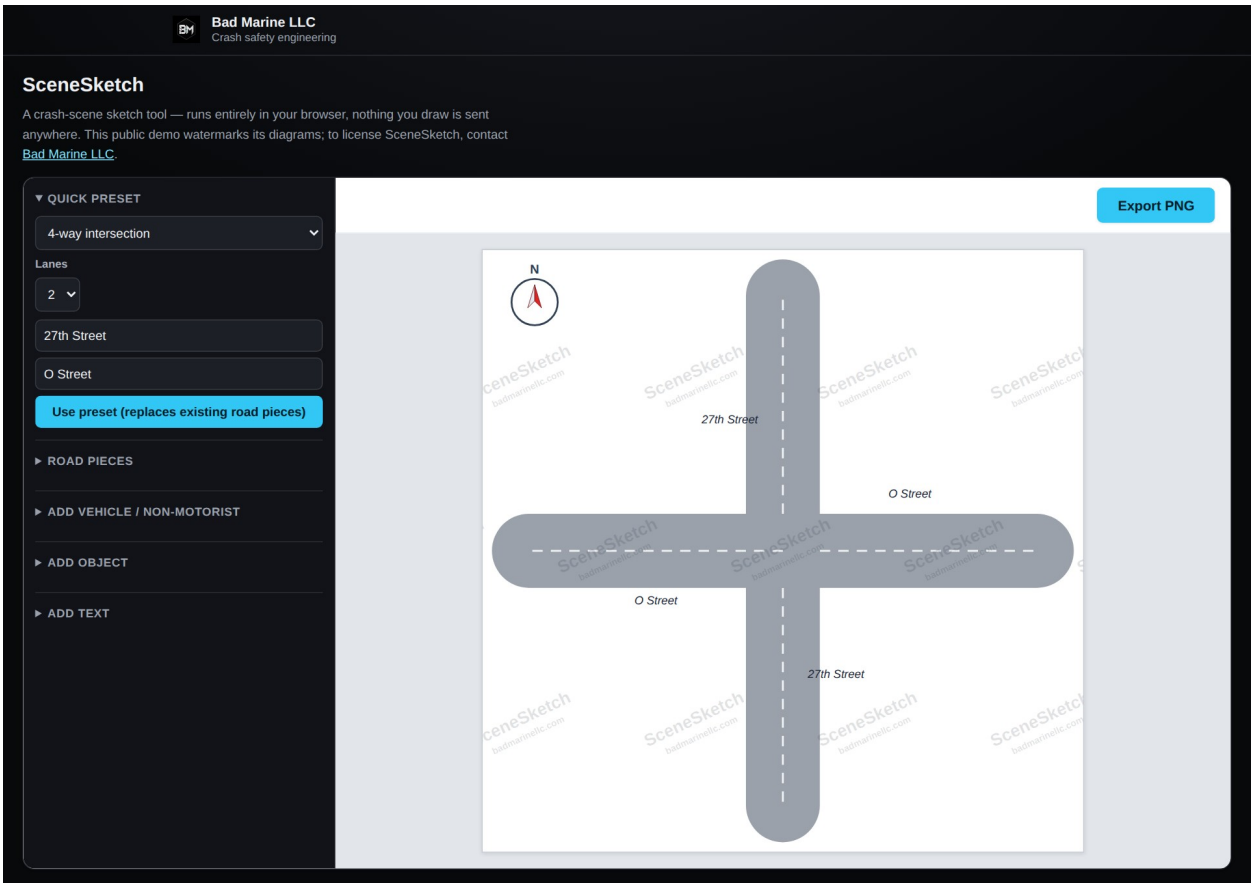
> **Note.** A preset replaces every road piece already on the diagram. Vehicles, objects and text stay where they are.



Quick Preset



Road Pieces



A 4-way intersection, 2 lanes, with both street names

Preset roads are pinned in place, so you can't knock them out of position while arranging vehicles. You can still turn each leg: click it and drag the small white dot to change its angle - useful for intersections that don't meet at right angles.

3.2 Road Pieces

Road Pieces places one piece of road at a time:

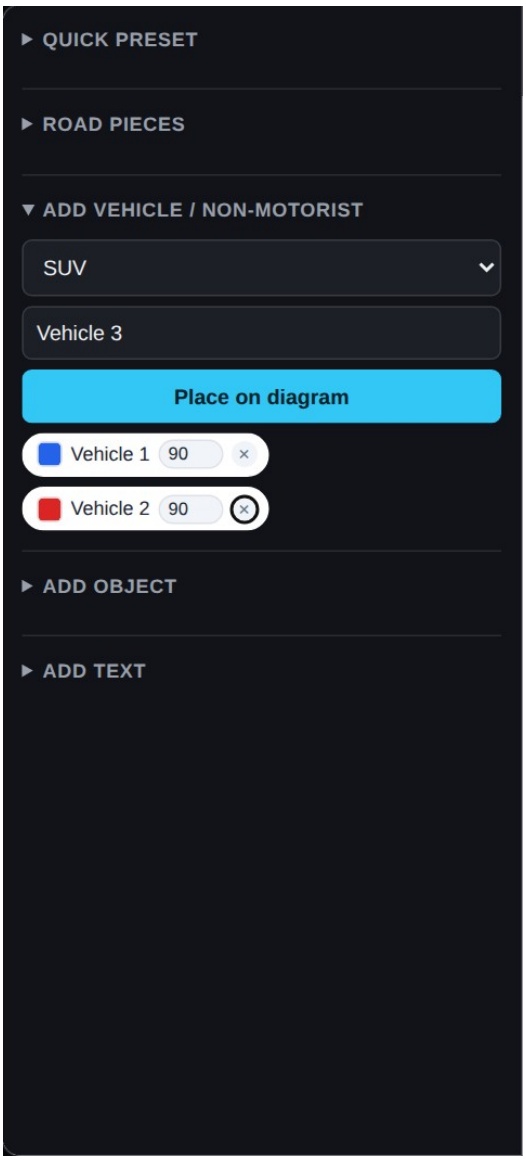
1. Open **Road Pieces** and pick **Straight** or **Curve**. For a curve, pick how far it bends: **left or right, 30°, 45°, 60° or 90°**.
2. Type a **Street name** (optional) and pick the number of **Lanes**.
3. Click **Place on diagram**, then click where the piece should start.

Joining pieces. Drag a piece so its start is near the open end of another piece and it snaps on, lined up to continue the road smoothly. Drag it near another piece's start instead and it snaps to that point, so several roads can branch from one spot.

Placed pieces (under Road Pieces) lists every road piece on the diagram. For each one you can change its **street name**, type an exact **heading** in degrees (0 to 359), or remove it with **×**.

4. Vehicles and people

1. Open **Add Vehicle / Non-Motorist** and pick a type from the list.
2. Type a **Label** - for example **Vehicle 1** - or leave the suggested one.
3. Click **Place on diagram**, then click where it goes. Drag it to fine-tune the spot.



Add Vehicle / Non-Motorist, with two vehicles placed

Each vehicle or person you place is listed under the section, where you can:

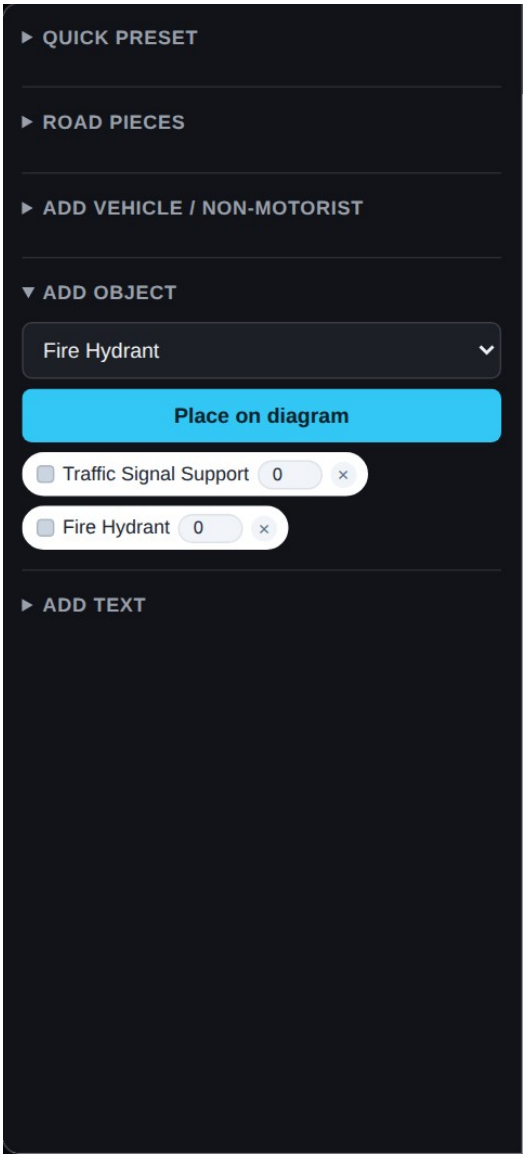
- click the **color swatch** to change its color;
- type an exact **heading** in degrees - 0 faces up the page, 90 faces right, 180 down, 270 left;
- click **×** to remove it.

The types, each drawn at its real-world size:

Group	Types
Passenger vehicles	Car, SUV, Pickup, Passenger Van, Cargo Van, Limo, Motor Home/RV
Trucks and buses	Straight Truck, Semi/Tractor-Trailer, Bus
Motorcycles and small vehicles	Motorcycle (2-Wheel), Motorcycle (3-Wheel)/Autocycle, Moped/Motorized Bicycle, ATV/ATC, Golf Cart/Low Speed Vehicle, Snowmobile
Other vehicles	Construction Equipment, Farm Equipment, Train/Railway Vehicle
People	Bicycle, Other Cyclist, Pedestrian, Pedestrian (Wheelchair/Other Device)
Animals	Animal

5. Roadside objects

Open **Add Object**, pick an object, click **Place on diagram**, then click where it goes. Placed objects are listed under the section with a **heading** box and **×** to remove them, just like vehicles.



Add Object, with two objects placed

Group	Objects
Signs	Stop Sign, Yield Sign, School Zone Sign, Railroad Crossing Sign, Curve Ahead Warning Sign, Pedestrian Crossing Warning Sign, Intersection Ahead Warning Sign, Reduce Speed Ahead Warning Sign, Bicycle Crossing Warning Sign, Other Warning Sign, Traffic Sign Support
Signals	Traffic Control Signal, Flashing Traffic Control Signal, Ramp Meter Signal, Lane Use Control Signal, Flashing Railroad Crossing Signal, Flashing School Zone Signal, Other Signal, Traffic Signal Support

Group	Objects
Poles and posts	Utility Pole/Light Support, Other Post/Pole/Support, Fire Hydrant, Mailbox
Barriers	Guardrail, Guardrail End Terminal, Cable Barrier, Concrete Barrier, Other Traffic Barrier, Impact Attenuator/Crash Cushion
Bridges	Bridge Overhead Structure, Bridge Pier/Support, Bridge Rail
Roadside	Tree, Fence, Curb, Ditch, Culvert, Ditch/Culvert, Embankment
Work zones and people	Work Zone Equipment/Device, Flagger/Officer/Crossing Guard
Other	Unknown Fixed Object, Other Fixed Object

6. Text labels

Use text for anything the pictures don't say - "Point of impact", "Skid marks", "Final rest", a distance.

1. Open **Add Text** and type the text.
2. Click **Place on diagram**, then click where it goes.

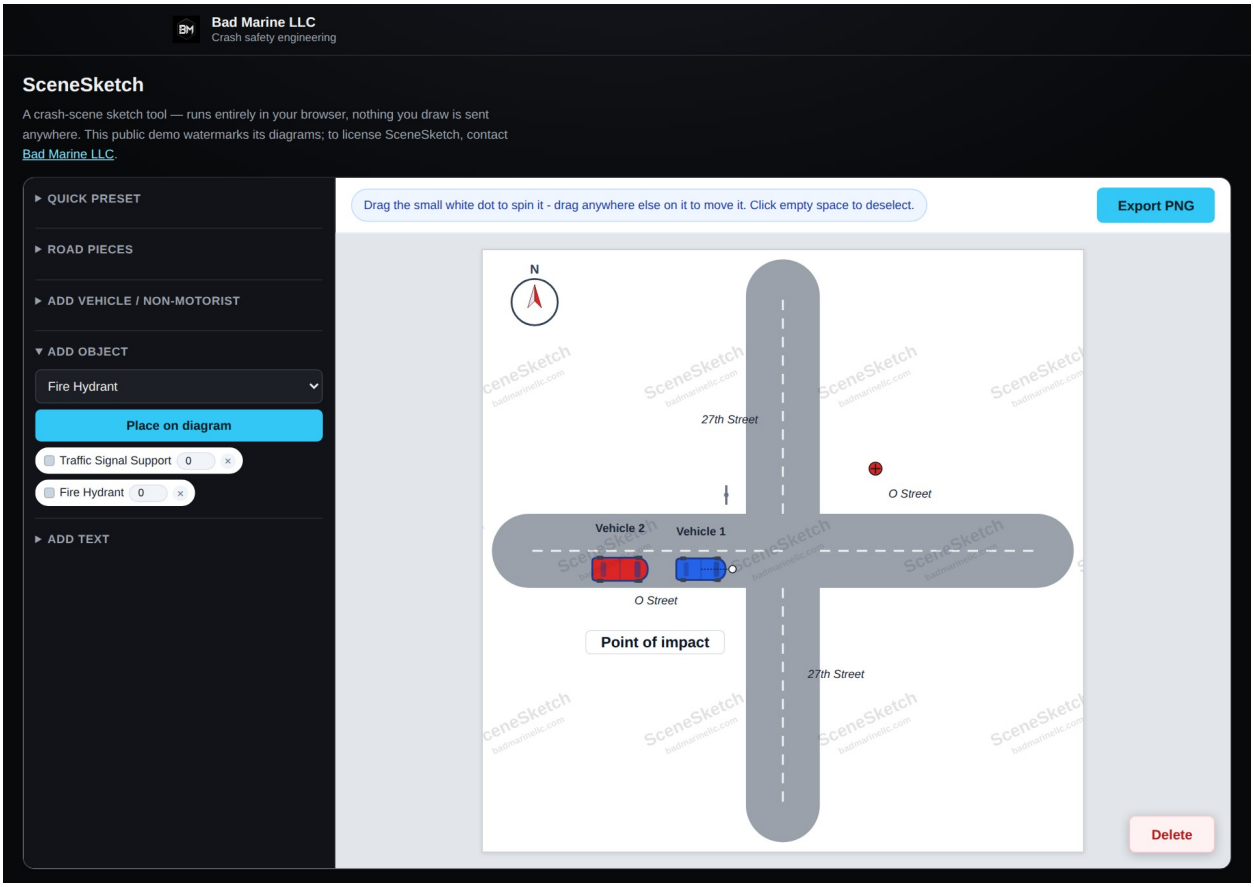
Placed labels are listed under the section. Edit the words there, type a **heading** to turn the label (for example, to run along a road), or click **×** to remove it.

7. Moving, turning and deleting

Everything on the diagram works the same way:

To...	Do this
Select something	Click it. A small white dot appears on it or just in front of it.
Move it	Drag it (anywhere except the white dot).
Turn it	Drag the small white dot around it. Or type an exact heading in its list entry in the controls.
Delete it	Select it and click the **Delete** button that appears on the diagram. Or click **×** in its list entry.
Deselect	Click an empty part of the diagram.
Turn the north arrow	Drag it.

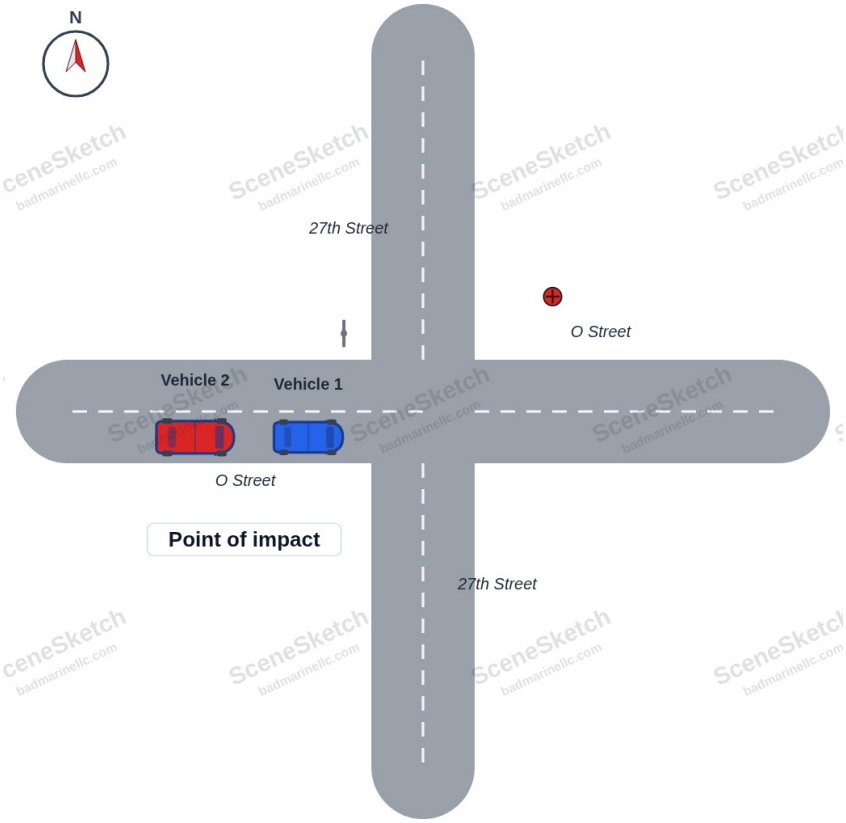
Preset road legs can be turned but not moved (section 3.1).



Vehicle 1 selected - the white dot in front of it turns it, and Delete appears

8. Saving your diagram

Click **Export PNG**. Your browser downloads the diagram as a picture named **crash-diagram.png**, with the street names, labels and north arrow included - everything on the white drawing area.



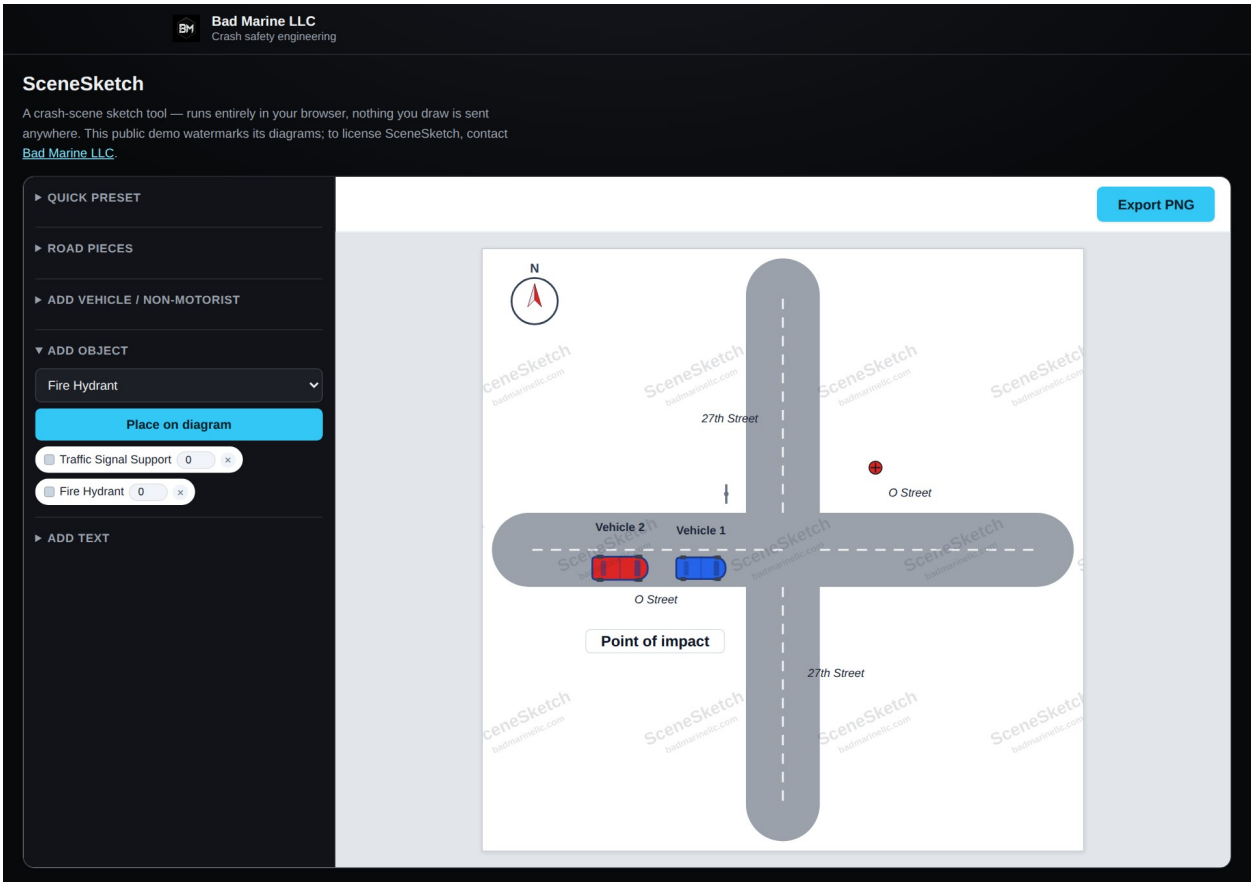
An exported diagram

> **Important.** SceneSketch doesn't save your drawing. Reloading or closing the page starts a blank diagram, so export a PNG before you leave. A PNG is a picture - it can't be opened again in SceneSketch to edit.

9. A worked example

A rear-end crash: Vehicle 1 was eastbound on O Street, stopped at the signal at 27th Street, and Vehicle 2 hit it from behind.

1. **Quick Preset**: pick **4-way intersection**, **2** lanes, street name **27th Street** (north-south) and cross street name **O Street** (east-west). Click **Use preset**.
2. **Add Vehicle / Non-Motorist**: pick **Car**, label it **Vehicle 1**, click **Place on diagram** and click the eastbound lane just short of the intersection. Type **90** in its heading box so it faces east.
3. Add **Vehicle 2** the same way, as an **SUV**, just behind Vehicle 1, also heading **90**.
4. **Add Object**: place a **Traffic Signal Support** at the corner, and anything else that matters - here, a **Fire Hydrant**.
5. **Add Text**: type **Point of impact** and place it next to where the vehicles met.
6. Check the north arrow, then click **Export PNG**.



The finished example

10. Quick reference and known limits

10.1 Headings

Heading	Faces
0	Up the page (north, if the north arrow points up)
90	Right (east)
180	Down the page (south)
270	Left (west)

10.2 Known limits

- **No saving or reopening.** The drawing lives only in the open page; export a PNG before you leave (section 8).
- **No undo.** Remove a mistake with **Delete** or **×** and place it again. A Quick Preset replaces all road pieces.
- **No zoom.** The drawing area is a fixed size - about 195 feet across. For a long stretch of road, sketch the part that matters.
- **Sizes are typical, not exact.** Every car is drawn at a typical car's size, every pickup at a typical pickup's, and so on.
- **The public demo is watermarked** (section 1.3).

10.3 Getting help

Questions, problems, or interested in licensing SceneSketch? Email Bad Marine LLC at **Sean@badmarinellc.com**.