



## Car Wars – Speed Targeting Modifiers

The shooting roll modifiers due to speed as listed in the Car Wars Manual do not go far enough for a number of reasons. To start with, these modifiers, in general, only take into consideration the speed of the target vehicle, with no consideration being given for the speed of the shooting vehicle. But more importantly, they do not consider the relative direction of travel of the shooting and target vehicles, which I believe would play a large part in determining how difficult a shot is.

These alternative Speed Targeting rules aim to introduce a system that will allow these factors to be quickly and easily determined, giving a better model of the situation with regard to modifiers applied to the shooting roll.

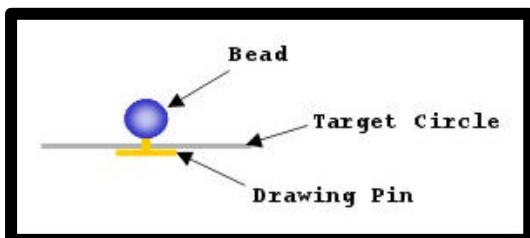
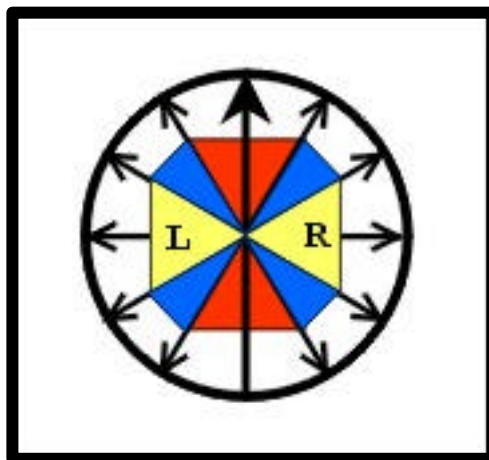
It also means that car position becomes an important tactical factor during game-play – it is easier to target and blast hell out of an opponent if you are tailgating them; whilst shooting at a target heading towards you as your vehicle speeds across in front of them makes them an easier target and at the same time makes a shot against you a relatively more difficult one.

### Important Note

Overall, using this system the chance of hitting will be decreased as the basic speed modifiers tend to play a slightly larger role, giving larger penalty modifiers. To balance this and give a decent chance to hit, it is a good idea to reduce all the base target numbers for the weapons by 1 if you do decide to include these new shooting roll modifiers in your game.

### The Targetting Circle

Copy the Target Circle picture opposite and print it out onto an overhead transparency or some other material that will give a transparent image before carefully cutting out around the circle. For ease of use, it is best to have at least 2 Target Circles when playing Car Wars.



In order to make the Target Circle easier to handle in play, it is a good idea to add a 'handle'. This can be done by pushing a small drawing pin through the centre from the back, gluing it in place, and then gluing a small bead to the protruding spike on the front.

In play, a Targetting Circle is placed over both the vehicle firing and the target vehicle, with the thick black arrow running along the centre of the vehicle, pointing in the direction of the vehicle's motion. By doing this the relative directions of travel of the 2 vehicles becomes immediately apparent and the respective amendment to the speed shooting roll modifier can be made.

## The Targeting Modifiers

The Targeting Modifiers Table below details the relative directions of the firing and target vehicles, as determined by use of the Targeting Circle zones, and the respective modifiers that would be applied to the shooting roll.

The arrows shown indicate relative direction only. In situations where it is clear that vehicles are traveling in the same or opposite directions the Targeting Circle need not be used, otherwise it should be placed on each vehicle to determine relative direction. If the same letter ('L' = Left; 'R' = Right) on the Targeting Circle for each vehicle is adjacent, then the vehicles are traveling in opposite directions, if not then consider them as traveling in the same direction.

### Targeting Modifiers Table

Attacker's Target Zone	Attacker's Direction	Target's Target Zone	Target's Direction	Speed Determination	Firing Modifier	Relative Direction Description
Red	↑↑	Red	↑↑	Difference	1/2	Line; Same direction
Red	↑↑	Red	↓↓	Sum	1/2	Line; Opposite direction
Red	↑↑ or ↓↓	Yellow	↑↑ or ↓↓	Sum	-1	Perpendicular; Any direction
Yellow	↑↑ or ↓↓	Red	↑↑ or ↓↓	Sum	None	Perpendicular; Any direction
Yellow	↑↑	Yellow	↑↑	Difference	1/2	Adjacent; Same direction
Yellow	↑↑	Yellow	↓↓	Sum	-1	Adjacent; Opposite direction
Blue	↑↑	Red	↑↑	Difference	+1	Shallow Oblique; Same direction
Blue	↑↑	Red	↓↓	Sum	+1	Shallow Oblique; Opposite direction
Red	↑↑	Blue	↑↑	Difference	None	Shallow Oblique; Same direction
Red	↑↑	Blue	↓↓	Sum	None	Shallow Oblique; Opposite direction
Blue	↑↑	Blue	↑↑	Difference	None	Oblique; Same direction
Blue	↑↑	Blue	↓↓	Sum	None	Oblique; Opposite direction
Blue	↑↑	Yellow	↑↑	Difference	-1	Sharp Oblique; Same direction
Blue	↑↑	Yellow	↓↓	Sum	-1	Sharp Oblique; Opposite direction
Yellow	↑↑	Blue	↑↑	Difference	-1	Sharp Oblique; Same direction
Yellow	↑↑	Blue	↓↓	Sum	-1	Sharp Oblique; Opposite direction

'Relative Direction' is the direction of travel of the target vehicle relative to the firing vehicle - ie in the 'same direction' or 'opposite direction' as determined by the Targeting Circle.

Use the difference between the speed of the shooting and target vehicles to get the appropriate base Shooting roll modifier due to speed which is then further modified as detailed in the 'Firing Modifier' column.

### Cars Wars Alternative Rules – Speed Targeting Modifiers

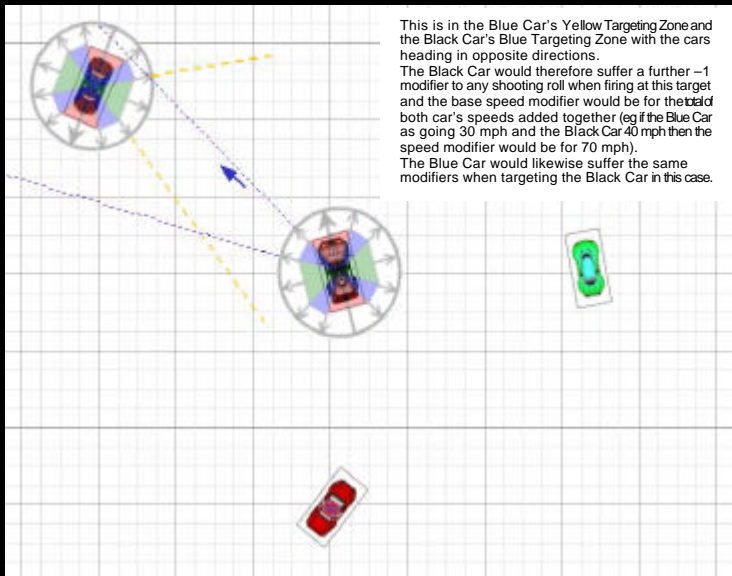
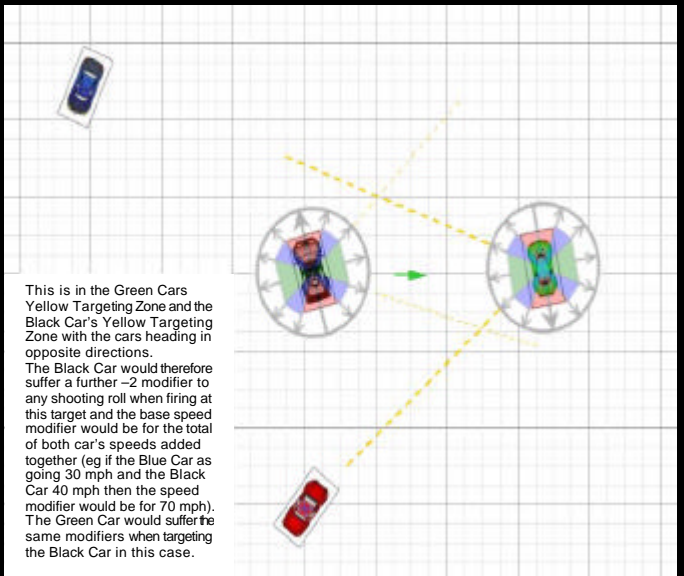
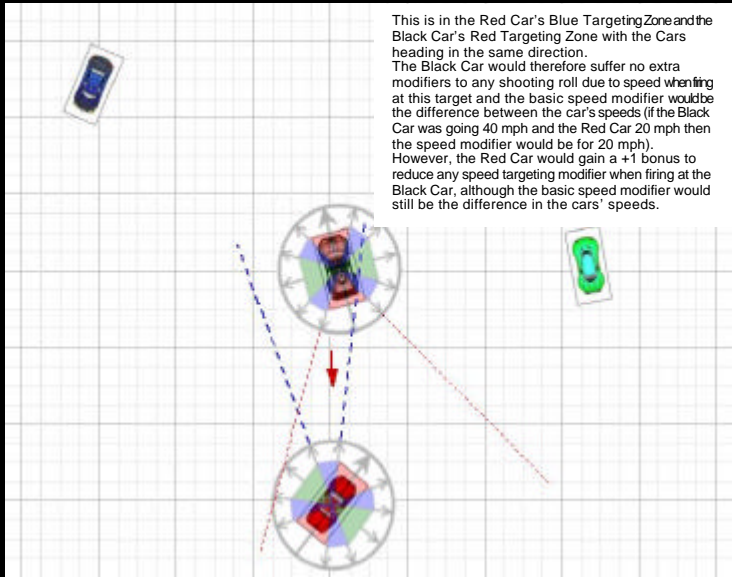
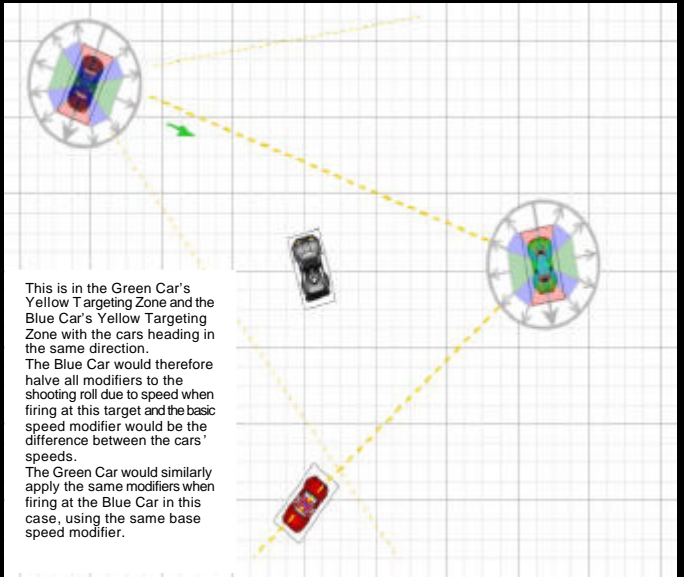
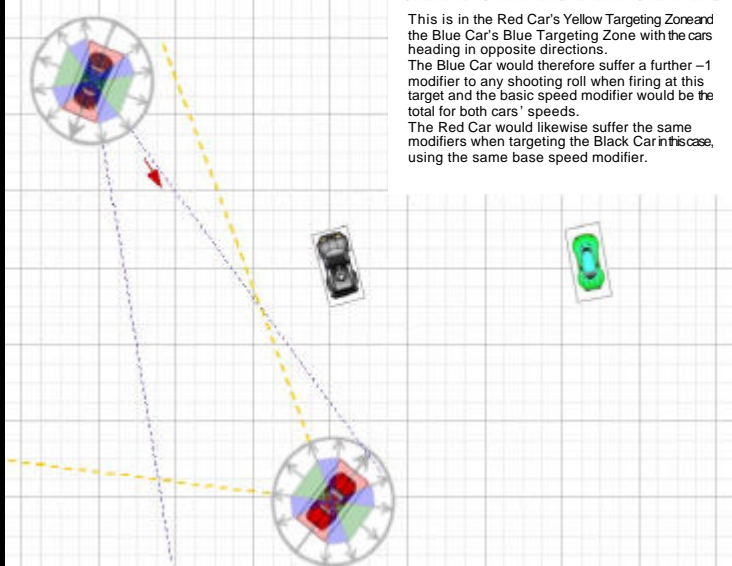
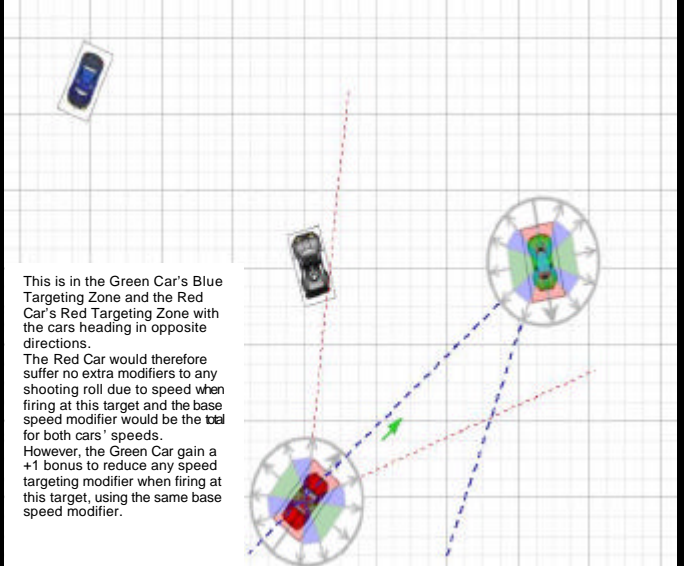
All the information in the above Targeting Modifiers Table can be described much more succinctly in the Targeting Modifiers Summary as illustrated below and this table is suggested for use as reference during game play.

		Target					
		Red	Red	Blue	Blue	Yellow	Yellow
Attacker	↑↑	↑↑	↓↓	↑↑	↓↓	↑↑	↓↓
	Red ↑↑	x <sup>1/2</sup>	x <sup>1/2</sup>	0	0	-1	-1
		-	+	-	+	-	+
Blue ↑↑		+1	+1	0	0	-1	-1
		-	+	-	+	-	+
Yellow ↑↑		0	0	-1	-1	x <sup>1/2</sup>	-2
		+	+	-	+	-	+

- "↑↑" Relative direction of Attacker and Target.
- "x<sup>1/2</sup>" Any negative modifier applied to the Shooting Roll due to speed is halved - round down. (ie -2 becomes -1; -1 becomes 0).
- "-1" There is a further -1 modifier applied to the Shooting Roll.
- "-2" There is a further -2 modifier applied to the Shooting Roll.
- "+1" Any negative modifier applied to the Shooting Roll due to speed is decreased by 1 (ie -2 becomes -1).
- "-" Use the sum of the shooting and target vehicles speed to get the appropriate base Shooting roll modifier due to speed.
- "+" Use the difference between the speed of the shooting and target vehicles to get the appropriate base Shooting roll modifier due to speed.

**Examples**

Below are some example diagrams which should help to show how the Targeting Circle is used and the subsequent targeting modifiers applied.

 <p>This is in the Blue Car's Yellow Targeting Zone and the Black Car's Blue Targeting Zone with the cars heading in opposite directions. The Black Car would therefore suffer a further -1 modifier to any shooting roll when firing at this target and the base speed modifier would be for the total of both car's speeds added together (eg if the Blue Car as going 30 mph and the Black Car 40 mph then the speed modifier would be for 70 mph). The Blue Car would likewise suffer the same modifiers when targeting the Black Car in this case.</p>	 <p>This is in the Green Car's Yellow Targeting Zone and the Black Car's Yellow Targeting Zone with the cars heading in opposite directions. The Black Car would therefore suffer a further -2 modifier to any shooting roll when firing at this target and the base speed modifier would be for the total of both car's speeds added together (eg if the Blue Car as going 30 mph and the Black Car 40 mph then the speed modifier would be for 70 mph). The Green Car would suffer the same modifiers when targeting the Black Car in this case.</p>
 <p>This is in the Red Car's Blue Targeting Zone and the Black Car's Red Targeting Zone with the Cars heading in the same direction. The Black Car would therefore suffer no extra modifiers to any shooting roll due to speed when firing at this target and the basic speed modifier would be the difference between the car's speeds (if the Black Car was going 40 mph and the Red Car 20 mph then the speed modifier would be for 20 mph). However, the Red Car would gain a +1 bonus to reduce any speed targeting modifier when firing at the Black Car, although the basic speed modifier would still be the difference in the cars' speeds.</p>	 <p>This is in the Green Car's Yellow Targeting Zone and the Blue Car's Yellow Targeting Zone with the cars heading in the same direction. The Blue Car would therefore halve all modifiers to the shooting roll due to speed when firing at this target and the basic speed modifier would be the difference between the cars' speeds. The Green Car would similarly apply the same modifiers when firing at the Blue Car in this case, using the same base speed modifier.</p>
 <p>This is in the Red Car's Yellow Targeting Zone and the Blue Car's Blue Targeting Zone with the cars heading in opposite directions. The Blue Car would therefore suffer a further -1 modifier to any shooting roll when firing at this target and the basic speed modifier would be the total for both cars' speeds. The Red Car would likewise suffer the same modifiers when targeting the Black Car in this case, using the same base speed modifier.</p>	 <p>This is in the Green Car's Blue Targeting Zone and the Red Car's Red Targeting Zone with the cars heading in opposite directions. The Red Car would therefore suffer no extra modifiers to any shooting roll due to speed when firing at this target and the base speed modifier would be the total for both cars' speeds. However, the Green Car gain a +1 bonus to reduce any speed targeting modifier when firing at this target, using the same base speed modifier.</p>