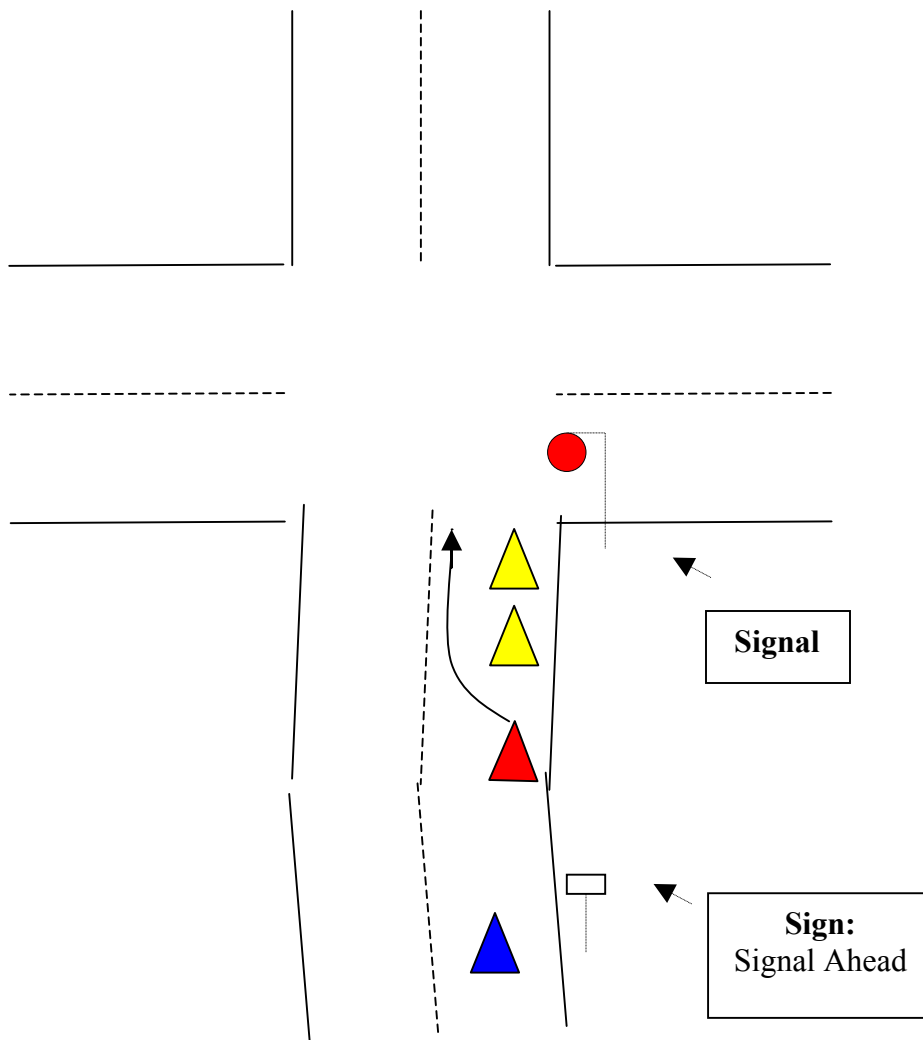
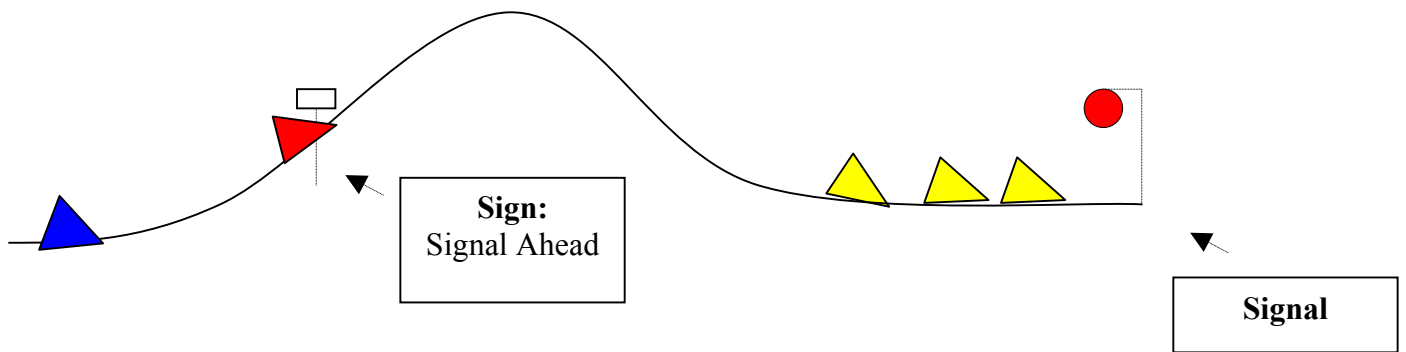


SIGNAL AHEAD SIGN AT CREST OF ROAD (SLOW DOWN) – NV:4A

In this scenario, an attempt will be made to determine whether a driver cresting a hill with a signal placed somewhere soon after the crest will predict the presence of cars backed up at the signal and therefore the need to slow down as the crest of the hill is approached. Specifically, in this scenario there is a rise and fall in the road ahead of the driver (**Figure 1**, bottom panel). A sign indicating a signal ahead is placed at the point where the road starts uphill. The vertical curvature is enough to make it difficult for the participant driver (blue) to see the cars over the hill and beyond the sign indicating a signal ahead. The lead car (red) is immediately ahead of the driver and a decoy car (yellow) or two ahead of the lead vehicle. They all crest the hill at full speed. The lead car will pull into the left turn lane (**Figure 1**, bottom panel). It is hypothesized that inexperienced drivers will not pay attention to the sign indicating that a signal is ahead, therefore not predicting the fact that the signal could be red and therefore a line of cars could be backed up at the signal.

Figure 1: NV: 4A





Material Risks. In the scenario where the risk materializes, the driver should crest the hill and run smack into the rear end of the line of queued vehicles. In the scenario where no risk materializes, the line of cars waiting at the signal will be small.

Dependent Variables. We will measure where the participant driver first brakes and the speed with which they crest the hill. If we use the eye-tracker, we want to determine the position of the participant driver when first they fixate the line of cars ahead, both when the risk does and does not materialize.