Reaction Time Measurement application: Road Safety

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Reaction time measurement
Application: road safety
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Background
It is recognised that driver reaction time to unexpected events is influenced by a variety of factors including tiredness and mobile phone use. Some work has been done on this by the Transport Research Laboratory in the UK (see, for example, http://www.trl.co.uk/online_store/reports_publications/trl_reports/cat_road_user_safety/report_conversations_in_cars_the_relative_hazards_of_mobile_phones.htm).

There are a number of ways to measure a person’s reaction time. One easy to use method is the ‘Sheep Dash Game’, at http://www.bbc.co.uk/science/humanbody/sheep/sheep/reaction_version5.swf.

Sheep Dash Game: how to play
Sheep will run across the computer screen at random intervals;
Click the tranquilliser button when a sheep is seen to leave the flock; you have five attempts;
Your reaction time will be displayed at the end of the game.

Alternative measurement methods
1. Measure the length a ruler drops before a person can catch it.

2. Obtain a Bode plot of the brain-eye-hand co-ordination system, from which reaction time can be determined.