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## 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](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/slep/sheep/reaction\\_version5.swf](http://www.bbc.co.uk/science/humanbody/slep/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;

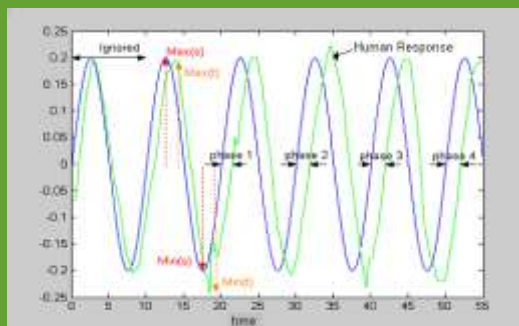
Your reaction time will be displayed at the end of the game.

## 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.



Your average time is: **0.2096 seconds**

- Sheep 1: 0.172 Seconds
- Sheep 2: 0.219 Seconds
- Sheep 3: 0.266 Seconds
- Sheep 4: 0.172 Seconds
- Sheep 5: 0.219 Seconds

Turbo-charged cheetah  
Bobbing bobcat  
Arking arnastiki  
Sluggish snail

You are rated → **Bobbing bobcat**

