<div align="center">Slinkys!!!</div>

<div align="center">**Minilab**</div>

Part 1

Prediction: How do you think the amplitude of the wave affects its speed?

Procedure:

travelling wave

$d = 7.0m$

timer

Data: Sample Calculations: Compare the speed of the small and large amplitude travelling waves.
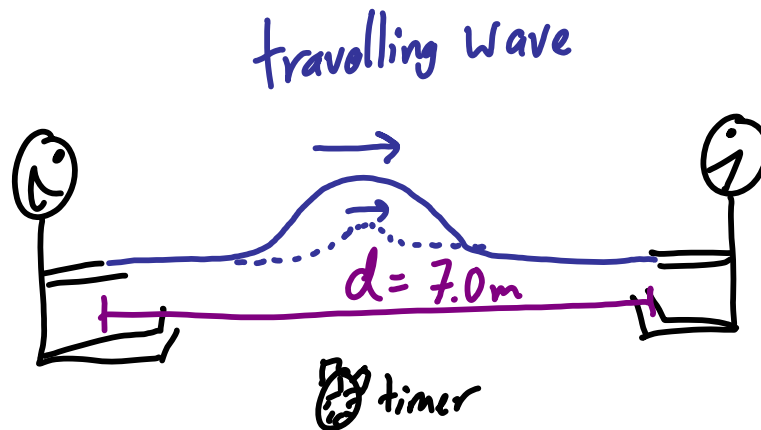
d_{Total}: _21.0m_

t_{small} = _1.80s_

t_{big} = _1.75s_
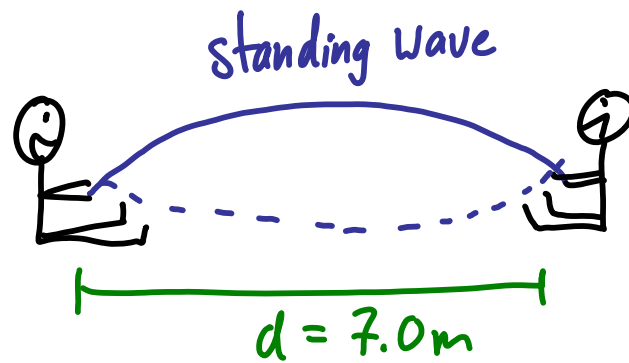
$$V = \frac{d}{t}$$

Discussion:

How does the amplitude of the wave affect its speed? Explain.

Briefly describe the difference between a **travelling** wave (the type used in part 1) and a **standing** wave (part 2).

Part 2

Prediction: How do you think the frequency of the wave affects its speed?

Procedure:

standing wave

d = 7.0m

Wave 7.0m	# of Waves	λ (m)	Time for 10 cycles	Period (s)	Frequency (Hz)	Speed (m/s)	Sample Calculations:
	$\frac{1}{2}$	14.0m	11.95s		$f = \frac{1}{T}$	$v = \lambda f$	
	1	7.0m	5.99s				
	$\frac{3}{2}$	4.67m	4.01s				
	2	3.5m	2.99s				

Discussion:

How does the frequency affect its speed? Explain.

Conclusion:

What does the speed of a wave depend on? (You may have to look this up on your own...)