

It's not science fiction;  
it's just engineering!

Tim Minshall

[www.whatengineersdo.info](http://www.whatengineersdo.info)

Engineering is ...

**“Dirty”**

**“Boring”**

**“Not important”**





[www.paleofuture.com](http://www.paleofuture.com)



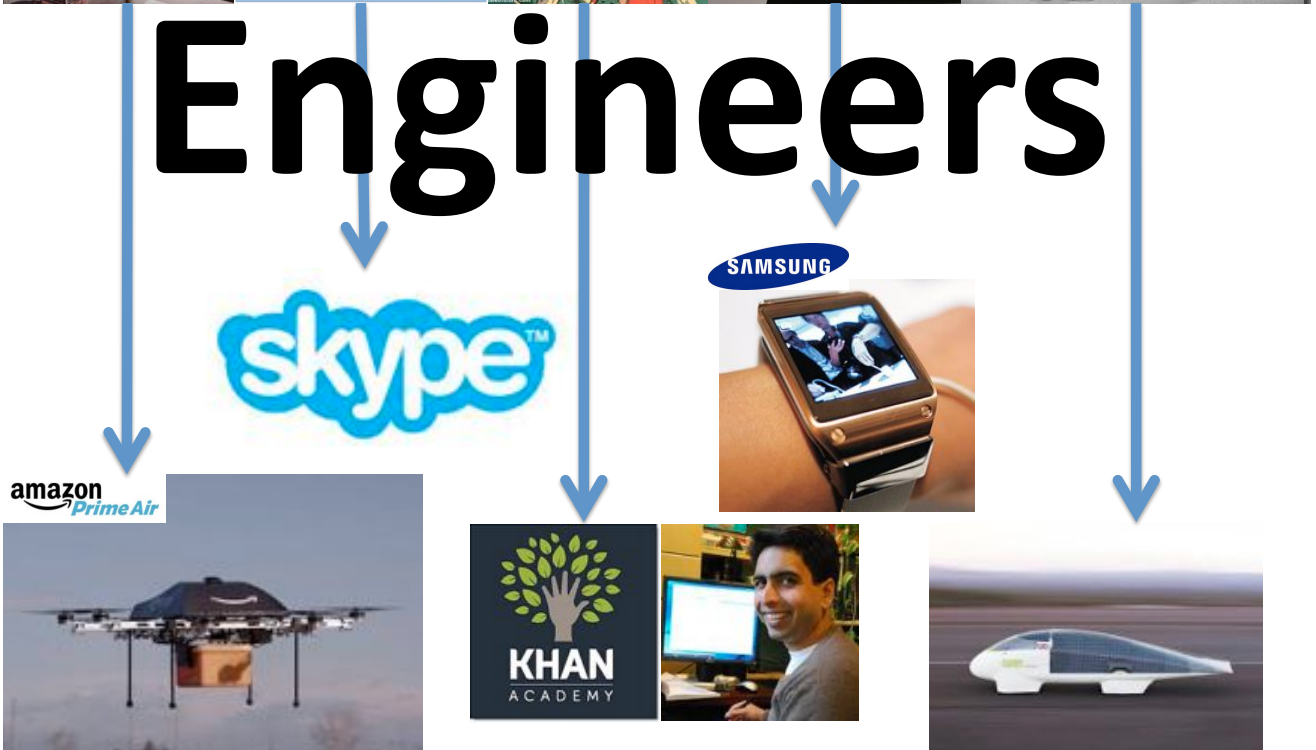




James Vaughn: CC BY-NC-SA 2.0



# Engineers





[whatengineersdo.info](http://whatengineersdo.info)

CAMBRIDGE UNIVERSITY  
ECO RACING

**CWER**

**Science Festival Talk**  
22<sup>nd</sup> March 2014

JAGUAR

LAND-ROVER

CambridgePRECISION  
EXCELLENCE EVERY TIME

MILLBROOK

SKF



# A Bit About Me



Keno



Isle of Wight



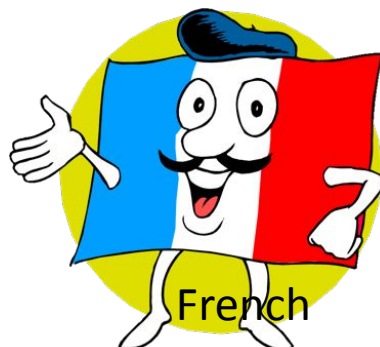
# At School



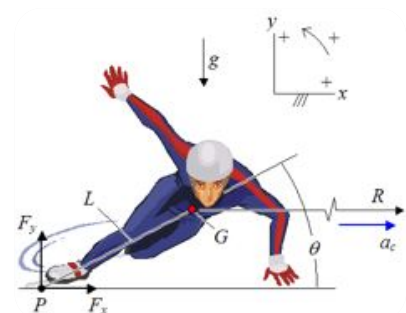
Maths



Chemistry



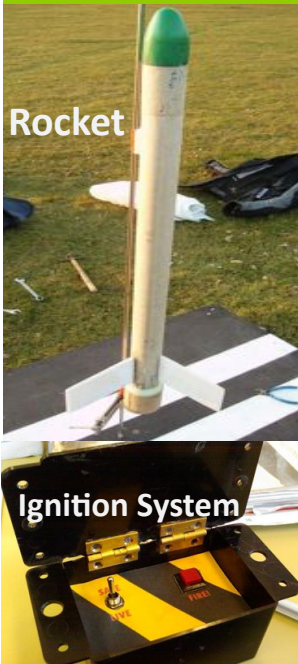
French



Physics



# But Loved Solving Problems...



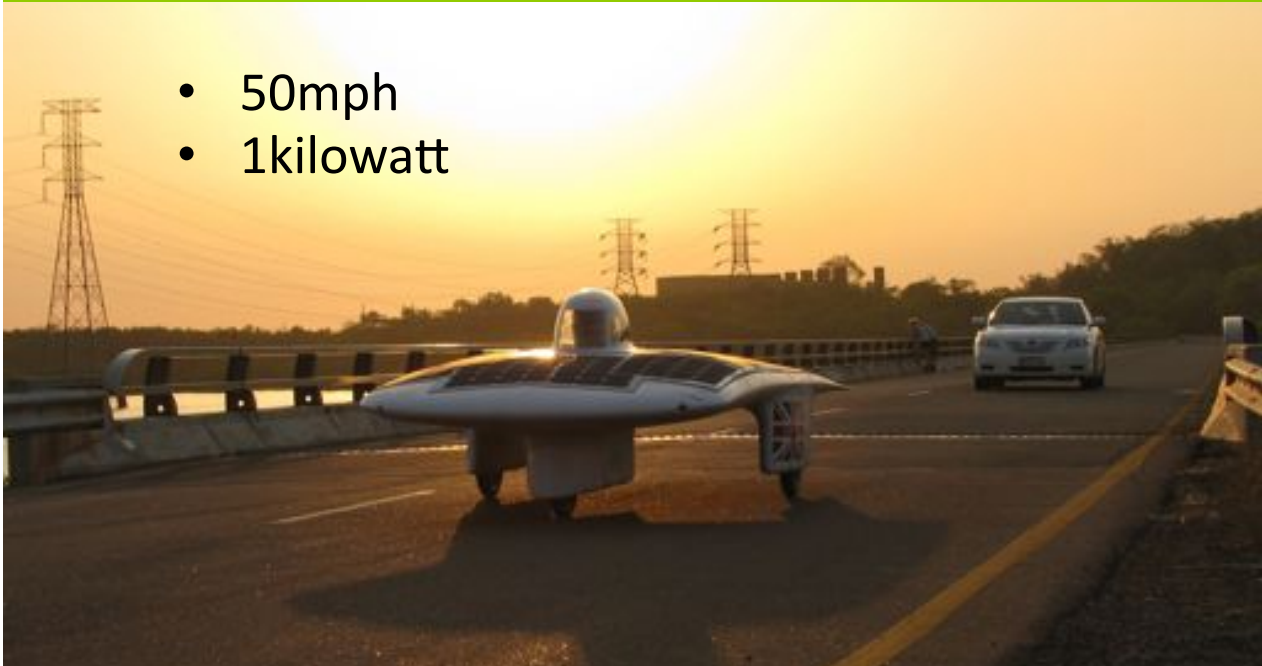
# I Wanted To Be...





# Cambridge Open Day

- 50mph
- 1kilowatt



# First Week At Cambridge





# CUER



- 60 Students
- Design, Build and Race



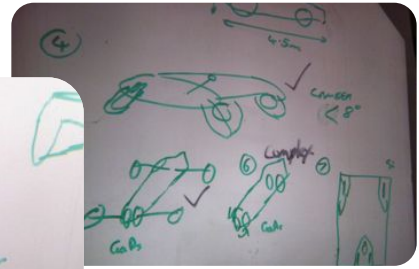
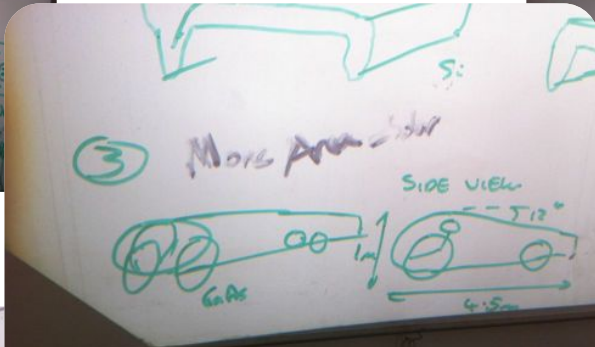
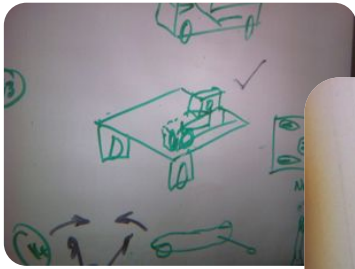
## World Solar Challenge



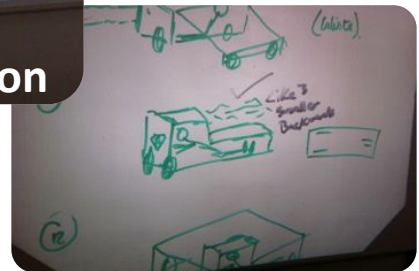
3,000 km  
Powered Only By The Sun



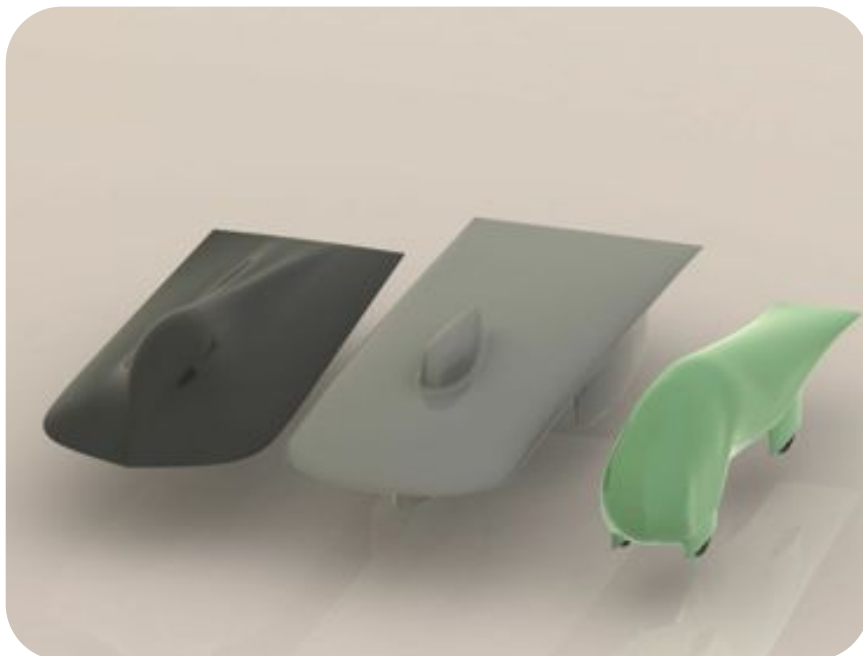
# Evolution of Resolution



First Sketch of Resolution



# Evolution of Resolution

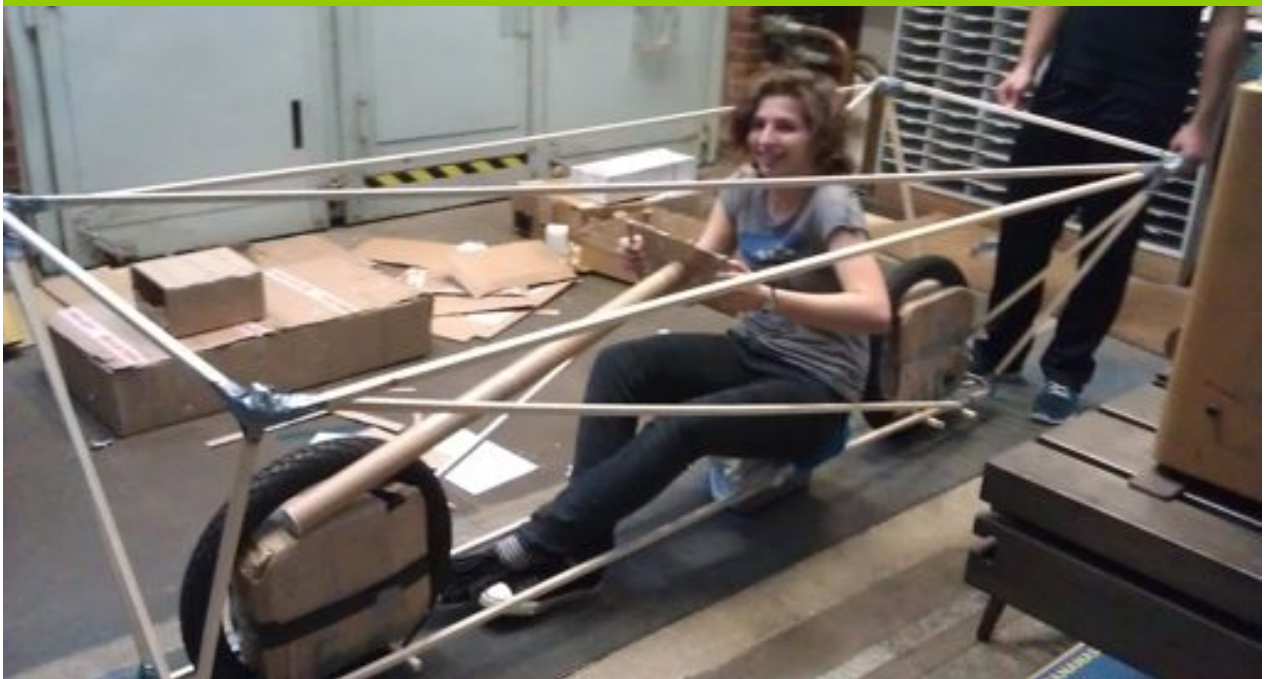




# Evolution of Resolution



# Evolution of Resolution



# Evolution of Resolution



# Evolution of Resolution





# Evolution of Resolution



First Drive 11 Months After First Sketch

CAMBRIDGE UNIVERSITY  
ECO RACING



# Evolution of Resolution



CAMBRIDGE UNIVERSITY  
ECO RACING



# Proud Moment



First Test On Australian Roads



# Turning Ideas To Reality



- Don't Need To Be Superhuman
- Keenness Is Key
- A Great Team Is Essential





Invent

Do

Improve

Oops!

Shape

Build



Invent

Do

Improve

Oops!

Shape

Build

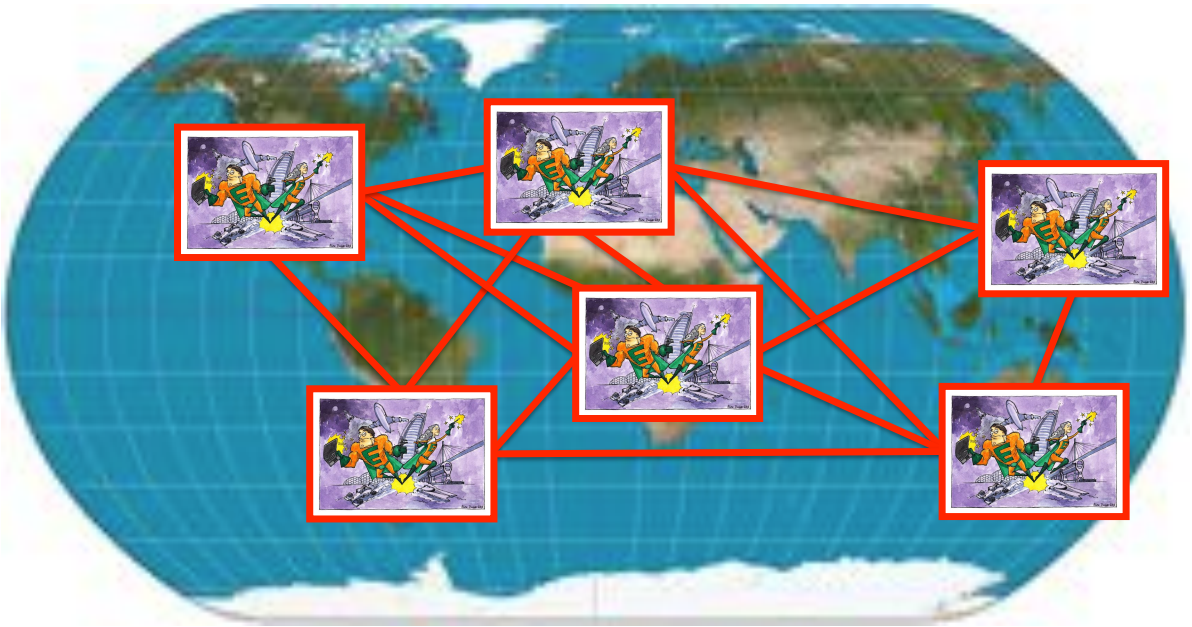
Why?

Yes!

Share







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sweetclipart.com

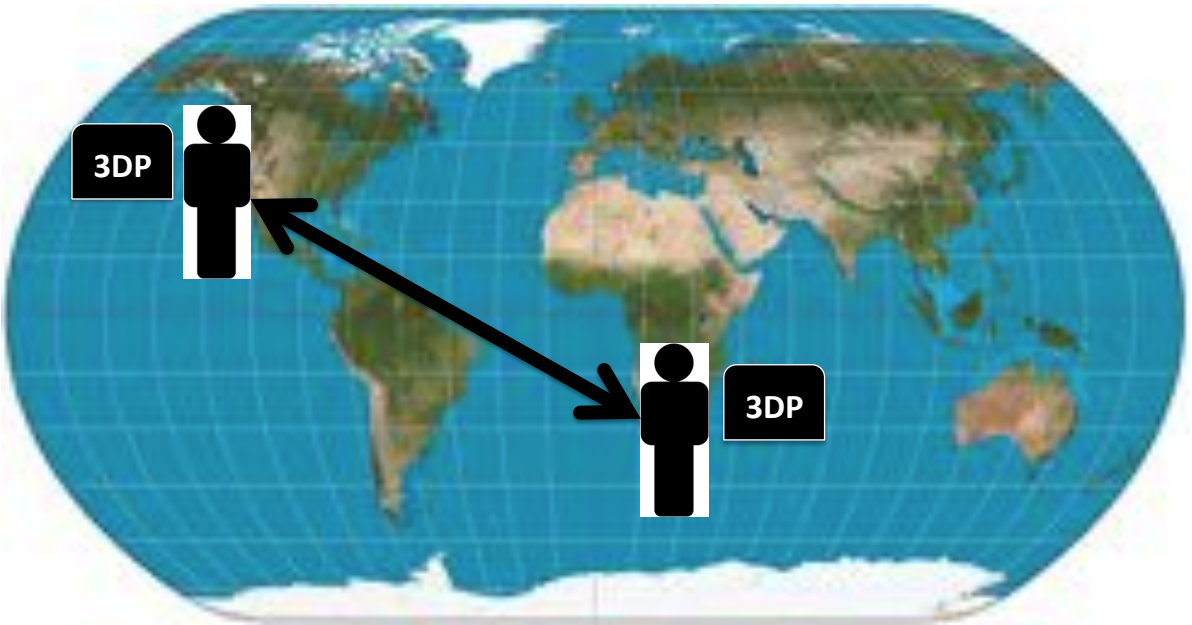


Makerbot Industries



Images: Asda.com; within-lab.com; bbc.co.uk; shapeways.com; jakevilldesign.dunked.com/cortex; recreus.com; Contour Crafting; 3dsystems.com





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From 2011 survey of 11-14 year olds & parents by Siemens / World Skills



# Thank you!



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