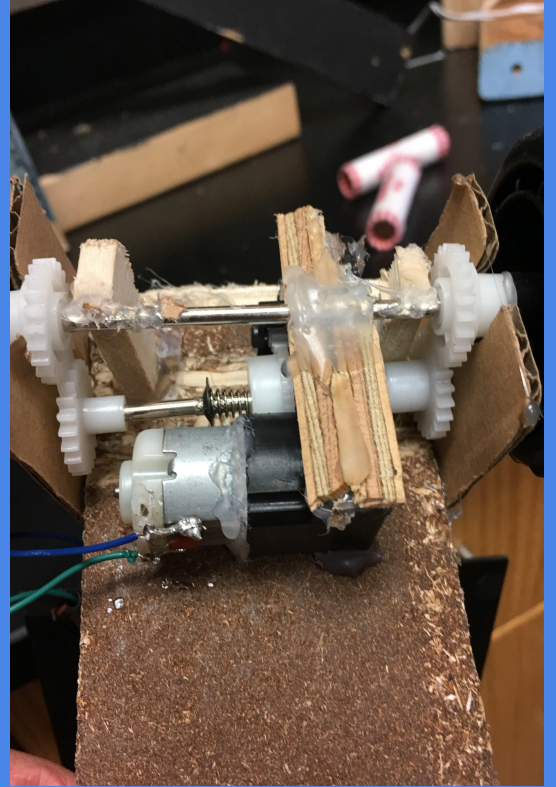
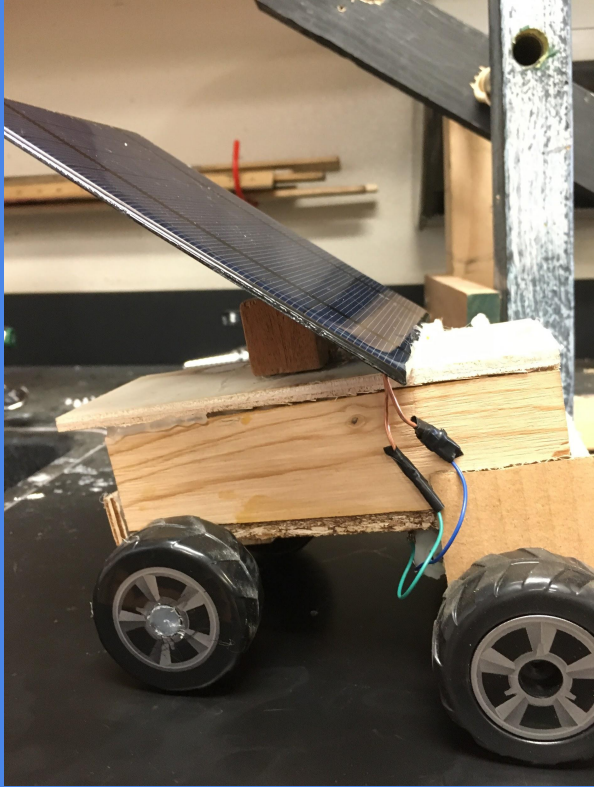




P.A.L. 2017

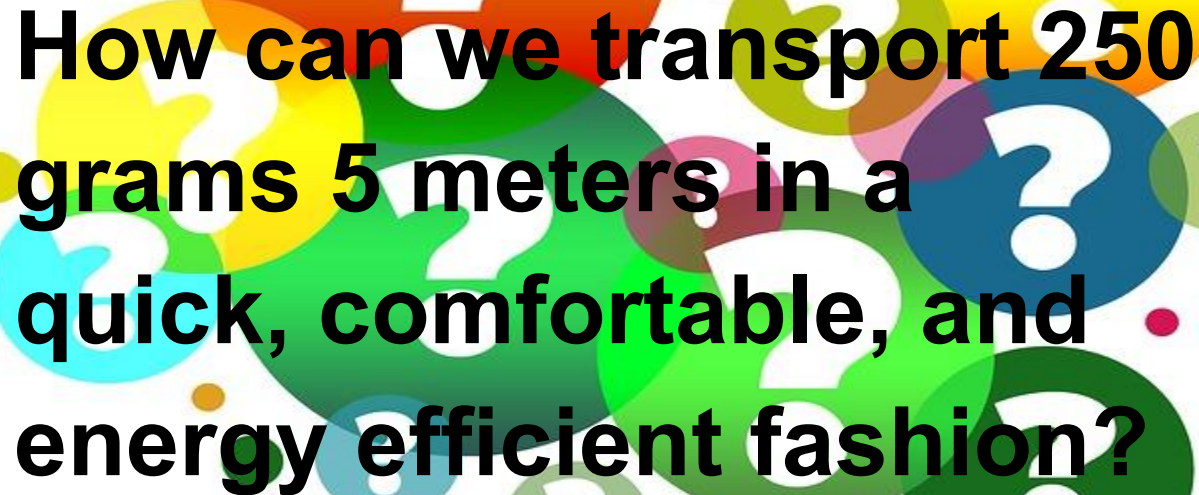
Gen 1 Solar Car

By: **P**ranav Pannala, **A**ndersen Teoh, **L**uke Venezia



Driving Question

How can we transport 250 grams 5 meters in a quick, comfortable, and energy efficient fashion?

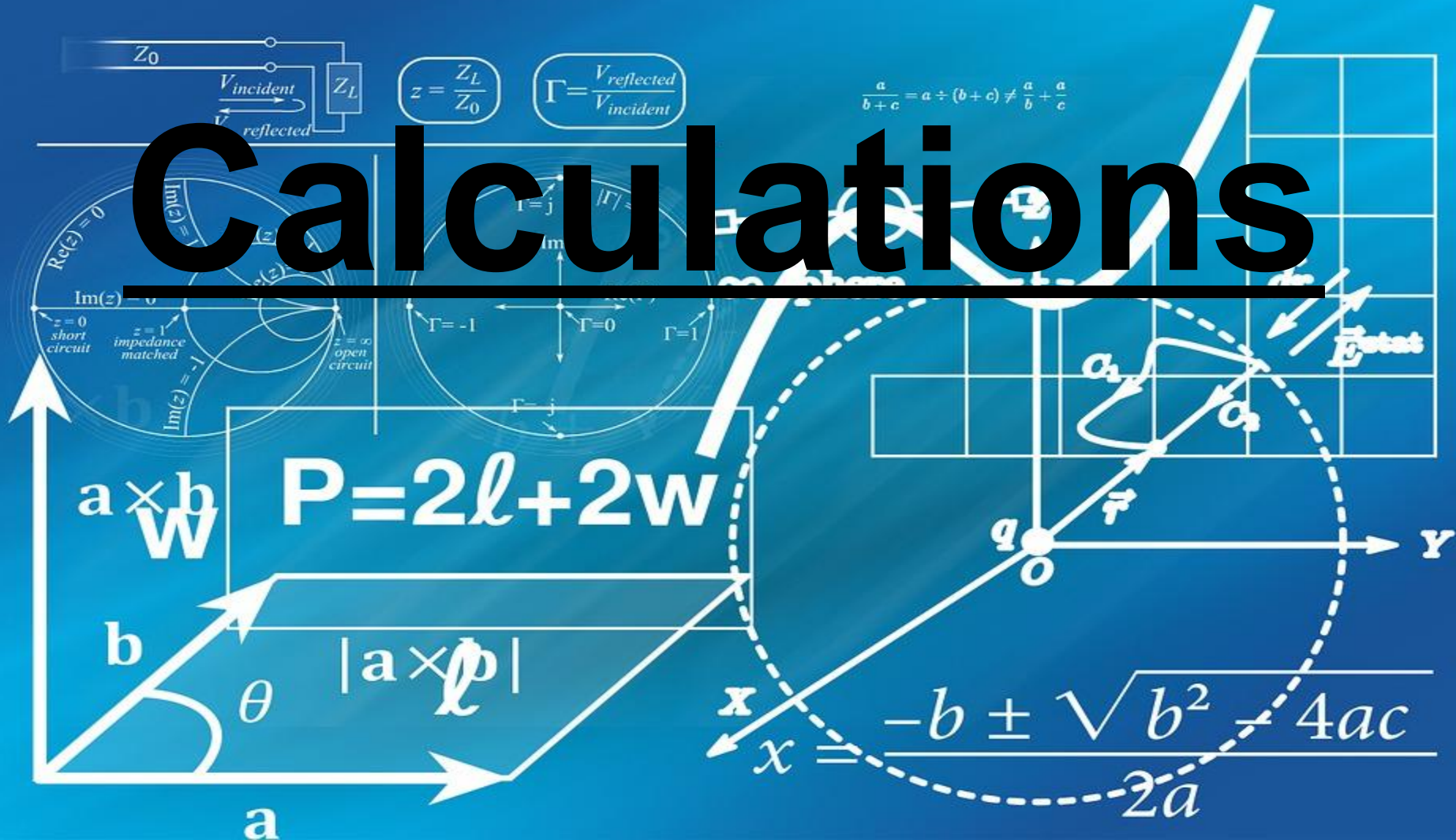


Our Design

- Compact and Spacious Cabin
- 13 x 15 Solar Panel
- 4 RC car wheels
- Gear box
- Long and sleek
- 17 cm long x 14 cm wide x 20 cm tall
(including solar panel)



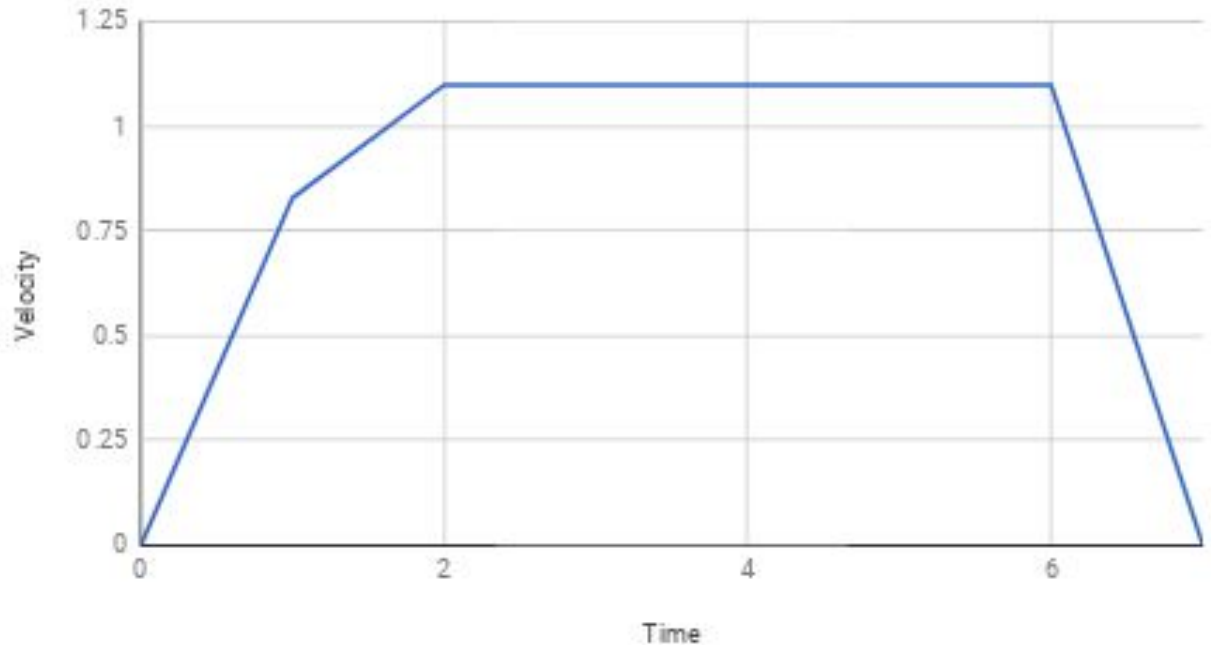
Calculations



Velocity (m/s) vs Time (s)

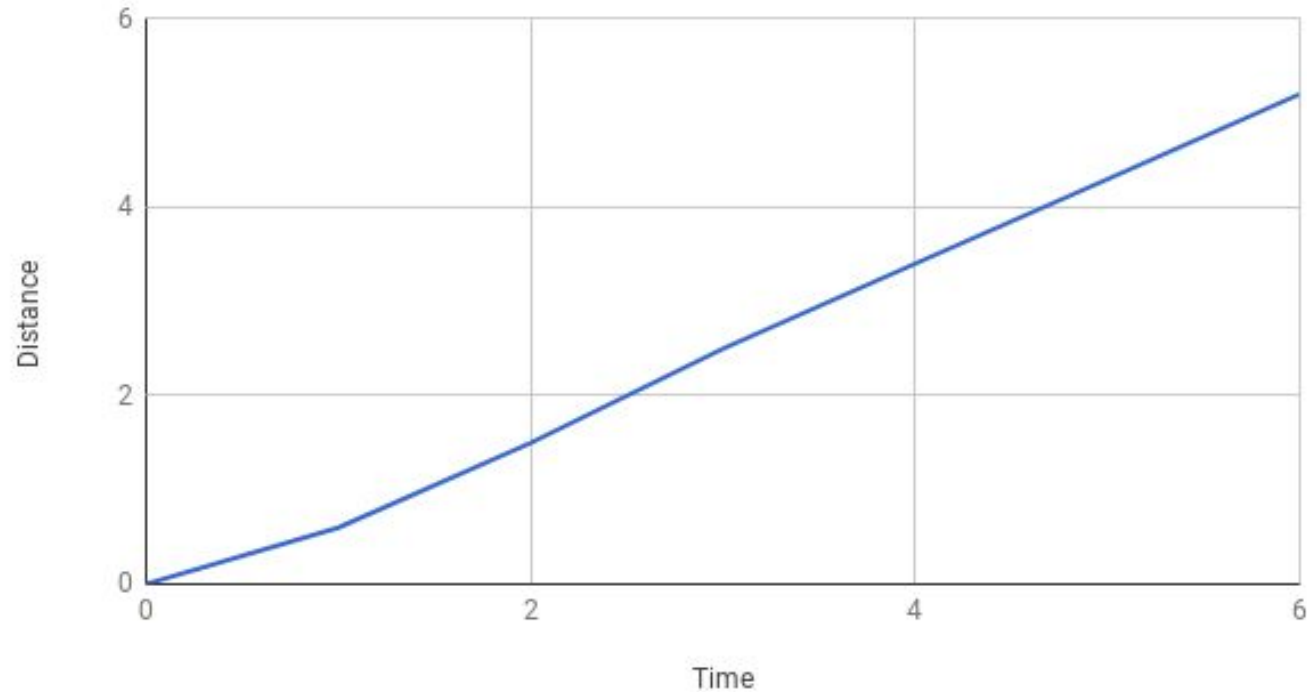
Velocity starts out slow, and by 2 seconds, reaches maximum speed, which stays constant until it stops

Velocity vs. Time



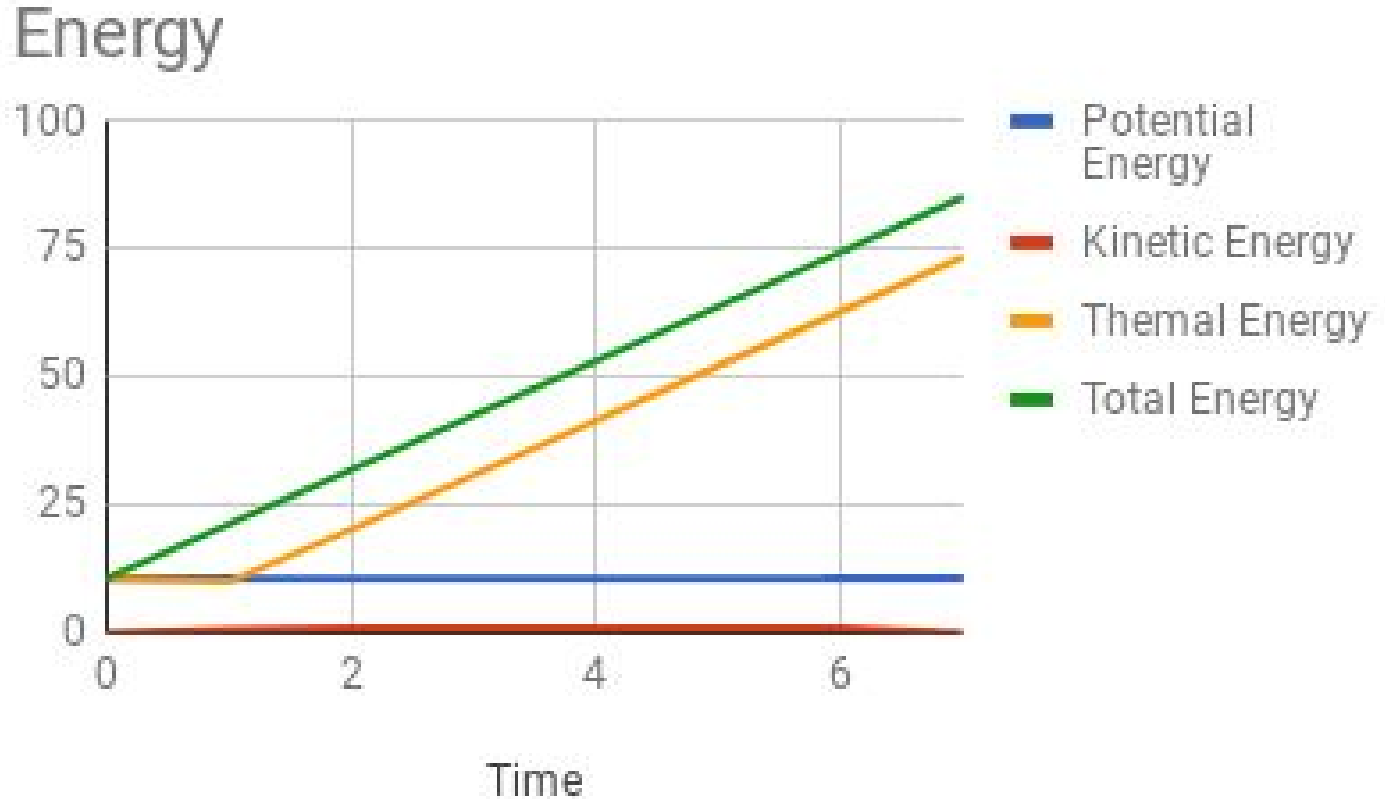
Distance (m) vs Time (s)

Distance vs. Time



Energy Graph (Joules)

Our total energy gets constantly higher because of the joules per second it gets from the sun



Friction's Role

1. Friction on the ground allows vehicle to move
2. Friction of string around axle stops vehicle
3. Friction of gears pressing together keeps our vehicle moving



Cost

Solar Panel= \$8

Motor+Wheels= \$2

Wood+Axle=\$1

Wire+solder=\$1

TOTAL: \$12

A full size car (all materials included) should cost approximately \$1500-\$2500.

We plan to replace the wood with metal. A thinner metal sheet, instead of wide wooden walls would make our car stronger, lighter, and cheaper.

Selling points

With the creation of the new P.A.L. 2017 Gen 1 Solar Car, many changes in automobile engineering will be changed. We will start to move away from a dirty and environmentally unfriendly type of a car, to a green and modern way of transportation. Along with being environmentally green, our design is also a comfortable and fast way of travel. Since the solar panel is adjustable, according to the sun's angle, it makes it quite easy for you to change the direction of the solar panel according to the sun. It is also self sufficient and can brake without human interaction providing an easy trip from A to B.

- Comfortable
- Fast
- Cheap
- Reliable
- Roomy
- Easy Braking
- Cool Look

GRACIAS
ARIGATO
SHUKURIA
JUSPAXAR
DANKSCHEEN
TASHAKKUR ATU
YAQHANYELAY
SUKSAMA
EKHMET
THANK
YOU
BOLZIN
MERCICI
BIYAN
SHUKRIA
TINGKI
MAKETAI
MINMONCHAR
BAHKA
SPASSIBO
SNACHALHUYA
NUHUN
CHALTU
WABEEJA
MAITEKA
HUI
YUSPAGARATAM
DHANYABAAD
ANBHA
ATTO
UNALCHEESI
HATUR GI
SPASIBO
DENKAUJA
NENACHALHYA
EKOJU
SIKOMO
SAHCO
MERASTAWHY
GAEJTHO
GOZAIMASHITA
AGUYJE
FAKAARUE
KOMAPSUMNIDA
MAAKE
LAH
GRAZIE
MEHRBANI
PALDIES