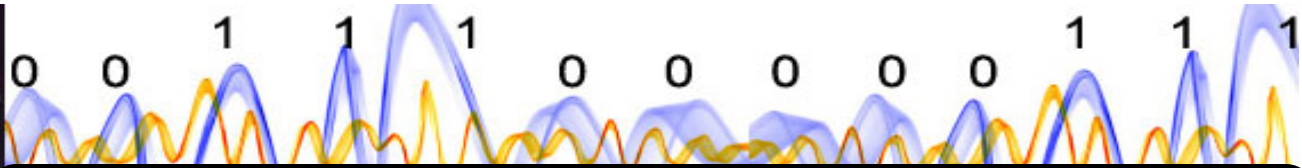


What am I proposing?

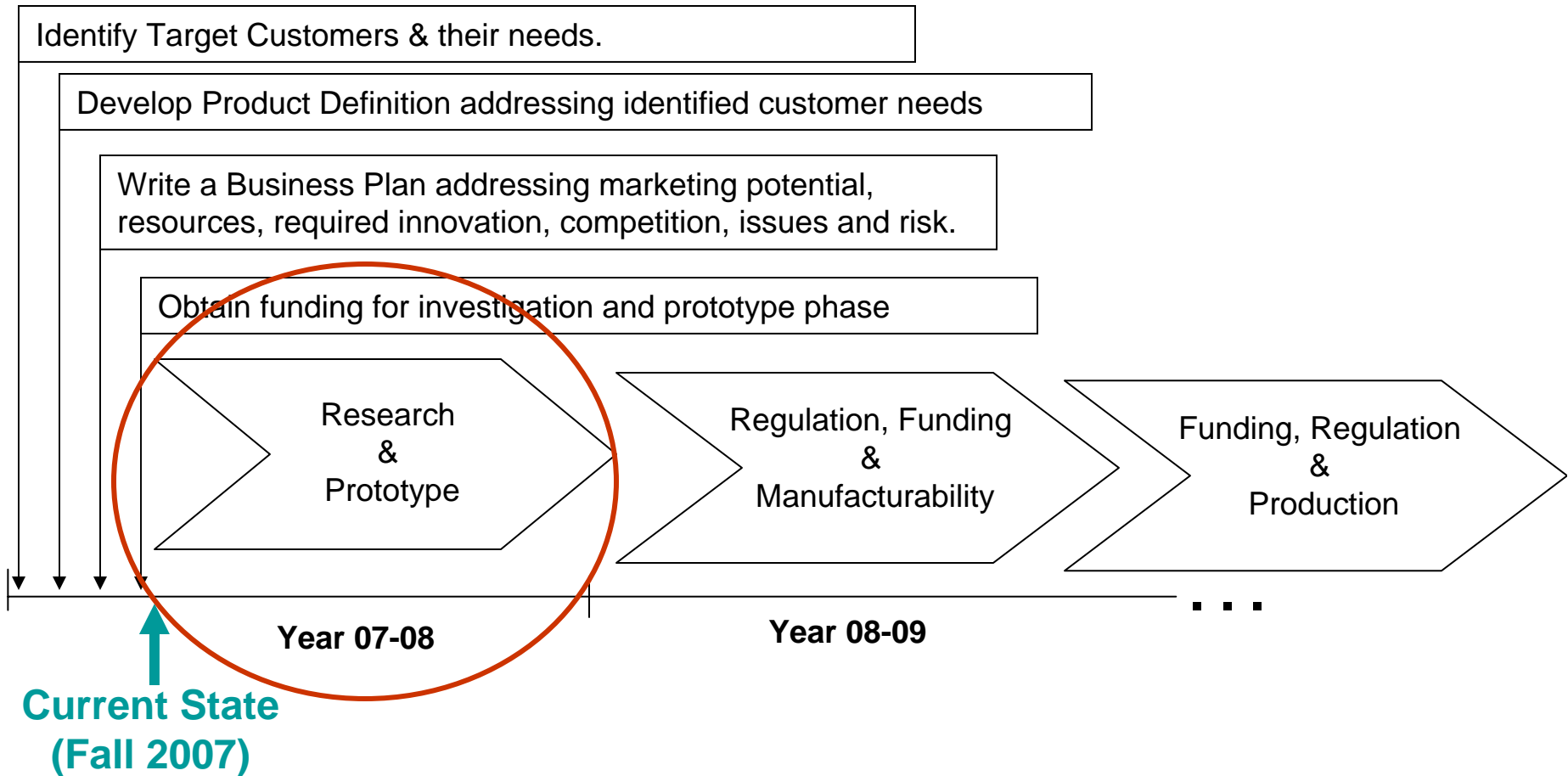
- To change the way people do the majority of their driving.
 - To and from work, school and friends
 - City driving within a 50 mile radius

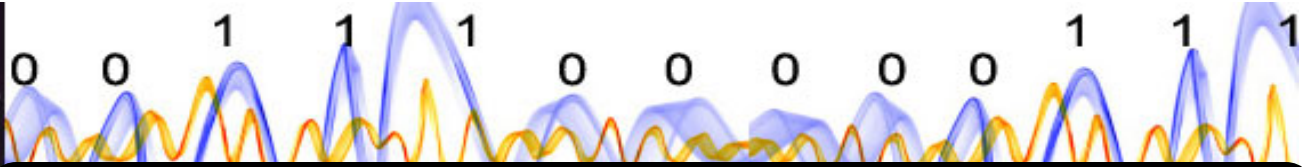
One person in each car! →





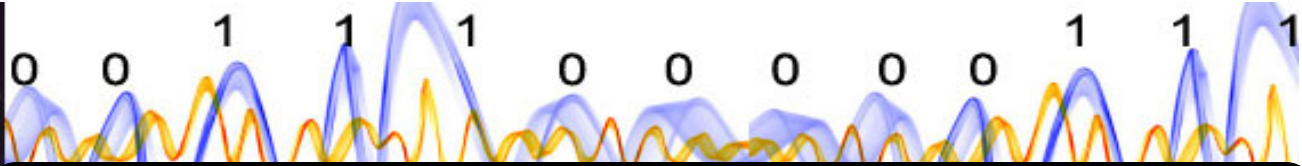
What's the plan?





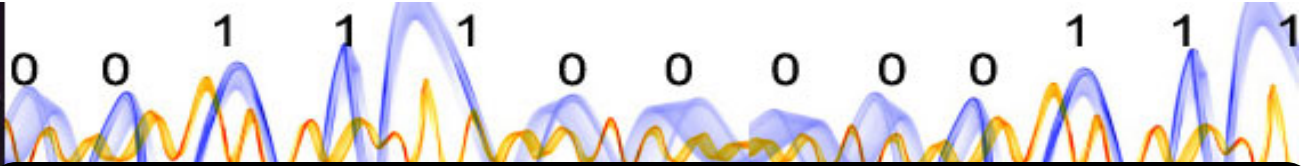
Target Customer?

- People who regularly travel within a 50 miles radius of their home.
- Residents of the US
- Those concerned about ecosystem
- Value-conscious consumers



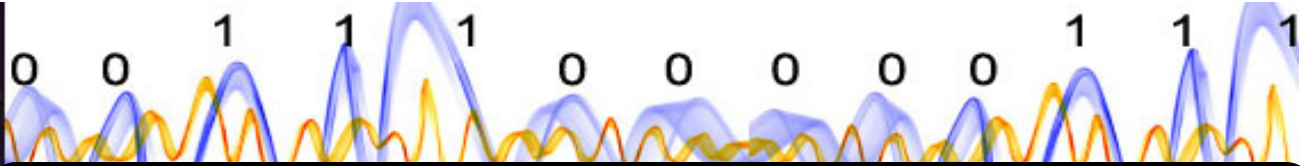
Customer Needs?

- Safety
- Reliability
- Lower cost of purchase
- Lower cost of ownership
- Contribute to healthy ecosystem
- Traffic-compatible performance



Product Definition (SHEP)

- Develop a single-person vehicle powered by solar energy and human power with fallback to plug-in electricity. Requirements:
 - Maximum loaded weight of 650 lbs (400 lbs unloaded weight)
 - Fit within a 4x8 feet area
 - Speed range 0 to 50 miles per hour
 - Minimum range of 100 miles
 - Maximize the % of energy derived from solar
 - Materials and labor cost of less than \$2000



Positioning?



Neighborhood Vehicle

- 2 Person
- 25 miles/hour
- 35 miles/charge
- Approx. \$12,750

Source: zencars.com



Neighborhood Vehicle

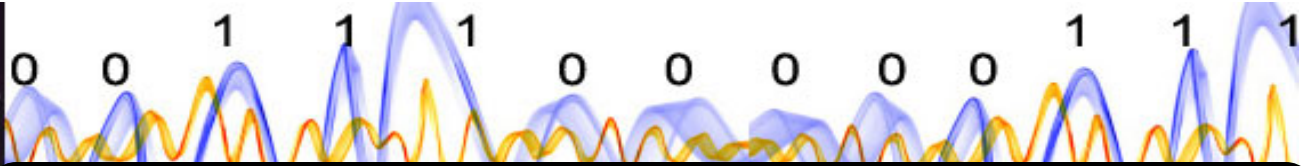
- 1 Person
- 50 miles/hour
- 100 miles/charge



Neighborhood Vehicle

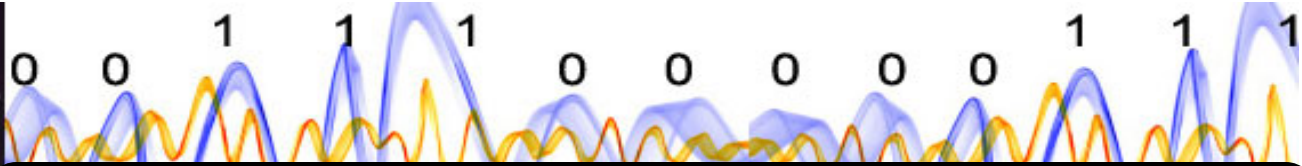
- 2 Person
- 135 miles/hour
- 200 miles/charge
- 0 to 60 mph in 4 sec.
- > \$90,000

Source: TeslaMotors.com



Potential Projects

- Frame Design
- Suspension
- Drive Systems
- Steering
- Braking and Regeneration
- Energy Generation and Management
- Energy Storage
- Body Design
- Street-legal Requirements
- Business Planning
- Documentation



Is this the right project for you?

- Yes, only if.....
 - You are interested in the topic!
 - You feel it is addressing real needs!
 - There are customers for it!