

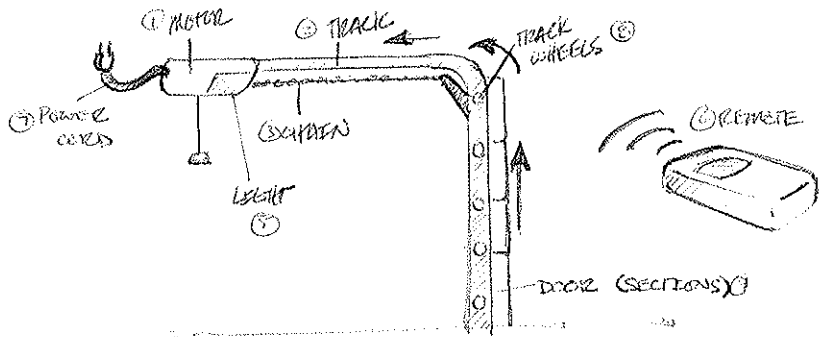
Part A: Using each of the tools of *Systematic Inventive Thinking*, develop five different novel concepts for the assigned product. Fill in the information requested. Be sure to show how your concept originates directly from each tool. Draw the concept if possible. (50 points each)

Assigned Product: GARAGE DOOR

1. Subtraction:

a. Component List:

1. MOTOR
2. TRACK
3. CHAIN
4. DOOR
5. LIGHT
6. REMOTE CONTROL
7. POWER CORD
8. WHEELS



b. Virtual Product:

MOTOR-LESS GARAGE DOOR

c. Benefits/Target Audience:

SECURITY

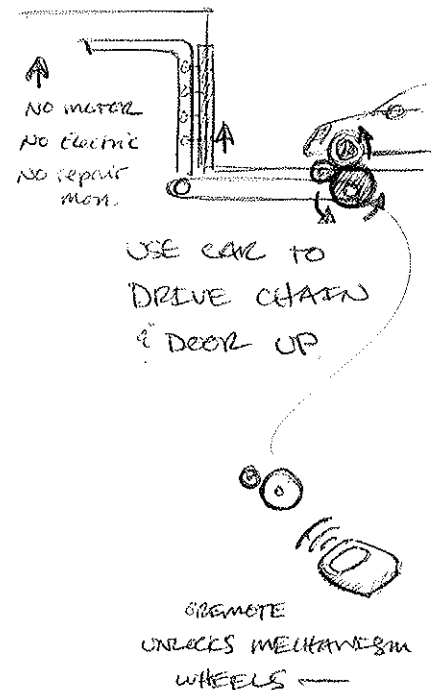
- ENERGY EFFICIENT
- ALWAYS OPENS (EVEN IF ELECTRIC IS OUT)
- SELF MAINTENANCE

d. Feasibility:

- HEAVY ON MECHANISM
- REQUIRES SOME PHYSICAL EFFORT

e. Potential Challenges or Issues:

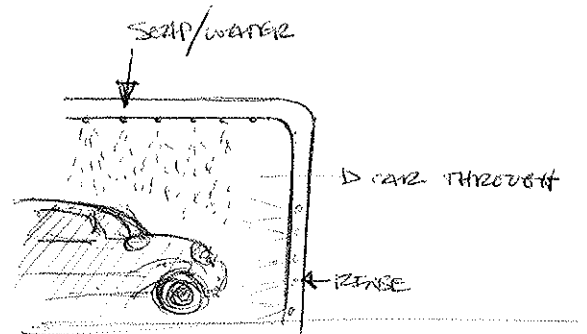
- NEED
- MECHANISM
- LESS - KEEP IT SIMPLE STUPID.



2. Task Unification: rails (track) have job of cleaning the car

a. Component List:

- CLOSER
- OPENER } SAME BUTTON
- Pulley (chain/motor)
- LEFT
- Door
- RAILS (TRACK)
- motor
- 



b. Virtual Product:

GARAGE CAR WASH

c. Benefits/Target Audience:

HIGH END CAR OWNERS / FREQUENT CAR WASH

d. Feasibility:

- INSERT WATER & SOAP TUBES INTO TRACK - ADD AS A FEATURE
- PARTNER WITH SOAP COMPANY

e. Potential Challenges or Issues:

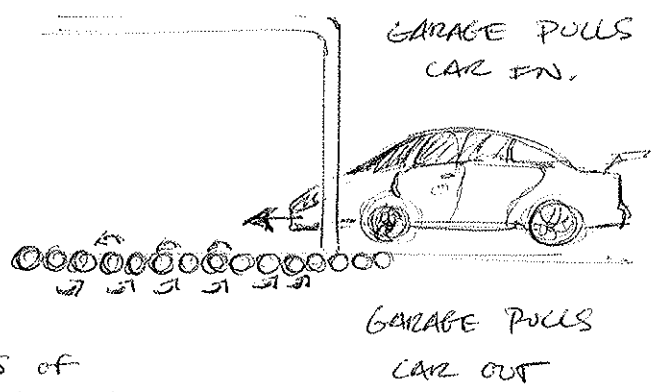
- MAINTENANCE
- PRICE POINT

wheels multiplied 200 times & one new rubber with tread.

3. Multiplication:

a. Component List:

- ① MOTOR
- ② TRACK
- ③ CHASSIS
- ④ DOOR
- ⑤ LIGHT
- ⑥ Remote
- ⑦ POWER CORD
- ⑧ WHEELS



HUNDREDS OF WHEELS WITH TREAD.

b. Virtual Product:

GARAGE VALET

c. Benefits/Target Audience:

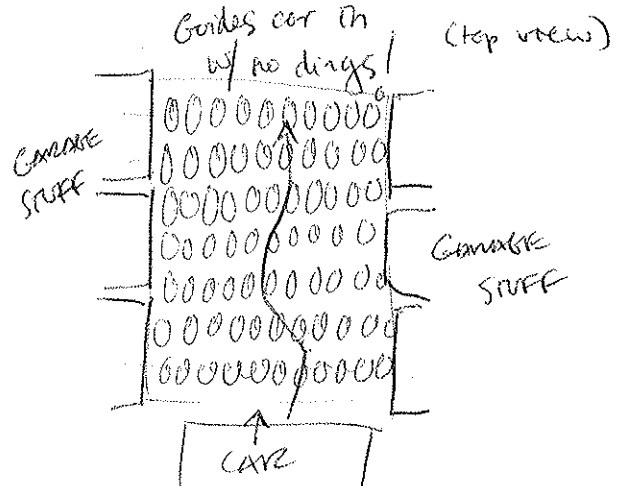
- PULLS IN STRAIGHT EVERY TIME
- NO DINGS ON CAR DOOR
- PULLS YOU OUT IN MOMENTS
- PEOPLE w/ NO DOOR TO GARAGE
- DETACHED GARAGE

d. Feasibility:

- A LOT OF WHEELS
- WHEELS NEED TO GUIDE CAR

e. Potential Challenges or Issues:

- NEED TO EMBED WHEELS IN DRIVEWAY
- EXTRA MOTORS



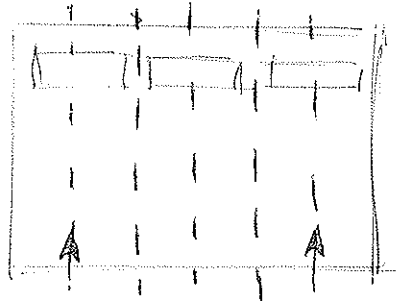
# PHYSICAL VEHICLE

## 4. Division: MAINTAIN FUNCTIONALITY

### a. Component List:

- MOTOR
- TRACK
- CHAINS
- DOOR
- LIGHTS
- REMOTE
- POWER CORD
- WHEELS

DOOR DIVIDED physically into 6 parts to maintain function.



### b. Virtual Product:

1/6 DOOR GARAGE DOOR (WALL UNITS / WINDOWS)

### c. Benefits/Target Audience:

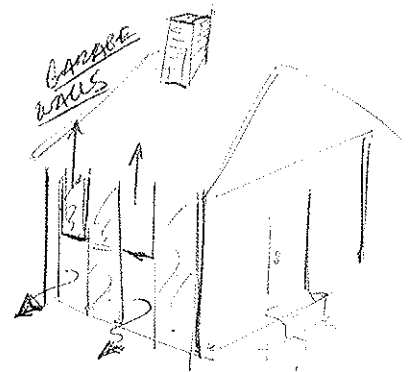
- Residential consumer
  - WINDOW WALLS
  - INDOOR WALLS

### d. Feasibility:

- A LOT OF MOVING PARTS
- GREAT FOR CARBON ROOMS

### e. Potential Challenges or Issues:

- DOES IT EXIST? (SEEMS SIMPLE)
- OFFICE BUILDINGS?
- WEIGHT / SPACE REQUIREMENTS



PROMOTE AIR FLOW IN HOUSES

- \* CUSTOMIZABLE FLOOR PLAN IN HOUSE
- WALLS ON MOTORS

- \* PRE-FAB HOMES

- BUILD FRAMES
- DROP IN WALLS
- OPEN WALLS NOT DOORS
- SECURITY


- \* GOOD FOR MOVING

CURRENTLY THE LIGHT IS NOT

DEPENDENT ON THE WEATHER

- TRAFFIC COND.
- CAR

5. Attribute Dependency:  
a. Attribute Matrix:

	DOOR	MOTOR	TRACK	REMOTE	LIGHT
DOOR					
MOTOR					
TRACK					
REMOTE					
LIGHT					
WEATHER					
NIGHT/DAY					
STUFF IN GARAGE					
TRAFFIC					
CAR					

inside

outside

LIGHT DOES:

- weather {
  - BLUE TINT FOR RAIN
  - GREEN TINT FOR SNOW

b. Virtual Product:

WEATHER LIGHT FOR GARAGE

- traffic {
  - RED TINT = I 71 BACKED UP
  - ORANGE TINT = I 75 BACKED UP
- car maintenance {
  - Blinking Red: oil change

c. Benefits/Target Audience:

- COLOR CORRESPONDS TO FORECAST
  - reminder to bring umbrella
  - wear a heavier coat
  - drive separate car
  - heavy traffic color

d. Feasibility:

- LINK TO WEATHER RADAR & TRAFFIC REPORT
- GARAGE IS YOUR LAST STOP BEFORE ELEMENTS, link to car mileage.

e. Potential Challenges or Issues:

A lot of information for a light

# 1/6 DOOR GARAGE DOORS

## (GARAGE WALLS)

Part B: Take one of your concepts in Part A of the exam and describe in each Big Picture quadrant below how **and why** the concept might be different for that quadrant. (50 points)

	Acquisition	Retention
Stimulate Demand	<p>• OFFICE / RETAIL SETTING</p> <ul style="list-style-type: none"> <li>- BUILD TO SUIT CONTRACTORS</li> <li>- NEW HOUSING SYSTEMS</li> <li>- LOGO WALL PARTCLEANERS</li> <li>- SCHOOLS</li> <li>- SEMI-STAR ROOMS</li> </ul> <p>where we are acquiring new customers and to stimulate demand we position ourselves as better than the alternative. Flexible, growing wall systems.</p>	<p>• FEATURE ADD-ONS TO BASE PRODUCT</p> <ul style="list-style-type: none"> <li>- TINTED GLASS</li> <li>- ELECTRICAL</li> <li>- ILLUMINATION</li> <li>- SIZE VARIATION</li> </ul> <p>• let this customer build on what they already have and try to surprise them with "exactly what I did not know I needed!"</p>
Steal Share	<p>• OFFER ENERGY SMART WALLS - SENSE OUTSIDE VS. INSIDE TEMPERATURES AND OPEN OR CLOSE TO REGULATE IT.</p> <p>This box is about differentiation and showing value that is unique. An offering that is compelling and SMART will drive consumers and demand this way.</p>	<p>• TRADE INS - RETRO-FIT</p> <ul style="list-style-type: none"> <li>- we will modify or update your old system with new features.</li> </ul> <p>• This box is hard to value because they are not loyal. Efforts should be limited when targeting this group. We may never get it ALL, but we could try to maintain a majority share.</p>