



romanbasti

📍 Slovensko

[launchforth.io/romanbasti/](http://launchforth.io/romanbasti/)

FOCUS AREAS OF INTEREST

- 3D Modeling
- 3D Printing
- Aerodynamics
- Design Engineering
- Exterior Vehicle Styling
- Industrial Design
- Industrial Engineering
- Interior Design
- Interior Vehicle Styling
- Transportation Design
- Virtual Reality

be pleased to browse through and give me some feedback on my web  
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ALL

IDEAS

ENTRIES

WORK

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EDUCATION

SlovakUniversityOfTechnology  
Bratislava | TechnischeUniversitat Wien  
| UniversityOfFineArts TransportDesign  
Bratislava

ON THE WEB

 [idizajn.webs.com/](http://idizajn.webs.com/)

NEW

UPDATED

MOST FOLLOWED

MOST VIEWED

IDEA

You might like some new  
pics updated on  
<http://romanbasti.deviantart.co>



ENTRY

Validated  
renovato



ENTRY

Validated  
RB\_LocalMotorsSLR



Feedback

## Lightweight Vehicles

### > LITECAR Challenge



# Entry: renovato

 **romanbasti** 3 years ago



Feedback

## OVERVIEW

I am thinking of a vehicle made with multi-material 3D printer. The bonet /cage meeting nowadays safety standards/ including seats for passangers will be made of a composite material such as ABS plastic compound LNP™ polymeres /combination of about 80 percent ABS plastic and 20 percent carbon fiber reinforcement is tough as metal. It may look like too lightweight, but the carbon-reinforced ABS plastic is stronger and denser than it appears as they say in LM/ They are planning to manufacture an airbus with 3Dprint where the complicated curved fuselage will be done this way and first of all it should be 65% lighter than with traditional manufacturing methods /ref: <http://www.forbes.com/sites/parmyolson/2012/07/11/...> Sure there are many more forwardlooking options of HIGH-TECH MATERIALS used to be 3Dprinted like: nanotechnology and nanomaterials, graphene /200 times stronger than steel, but as thin as an atom/, aerogel /lightest materials/ or smarthphone glass /half the weight of conventional laminated glass/ where we can move over to get the most of LEIGHTWEIGHTING /ref: <http://www.autoalliance.org/auto-innovation/high-t...> According to stricter regulations new level of innovation must be applied in all parts of vehicle. We must get weight / cost and performance BALLANCED. After we change the powertrain to electric / hybrid and by lightweighting programme we can get into vehicle more batteries, change the capacity of fuel tank we use a small combustion engine /let's assume we run out of petrol in a d batteries again on./ As they did by example wi [http://www.netcarshow.com/land\\_rover/2014-ra](http://www.netcarshow.com/land_rover/2014-ra) using its all-aluminium monocoque Lightweight technologies cut weight by up to 42%.

Check out the newest update from the MLV: Refined Build!





AERION 33

lucashernanlopez81

96 75 49

entry Accepted



Team WIKISPEED SGT01

teamwikispeed

3 5 45

entry Accepted



APALIS

sheetanshu

46 23

entry Accepted



CAPACITY CONCEPT

reveszrichard90

56 18 18

entry Accepted



Cubozoa

sogdiyev

31 4 16

entry Accepted



LITECAR

zhenek2481

26 2 14

entry Not Valid

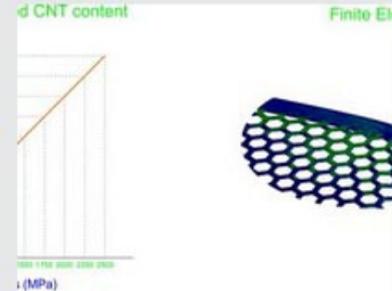


Drift EV - a plug and play car

Rob\_Ellison

6 14

entry Accepted



SMART ADDITIVE MANUFACTURING

arfan

20 20 13

entry Accepted



Aerodynamic water droplet with st...

tovaro



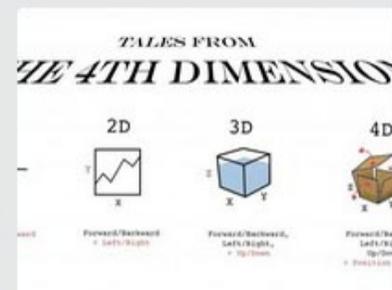
Inflatable car

michaldudiek



renovato

romanbesti



3D and 4D printing, sustainable po...

marcelinoseko



**Team WIKISPEED SGT01**

teamwikispeed

entry Accepted



**AERON 33**

lucashermanlopez81

entry Accepted



**CAPACITY CONCEPT**

revesrichard90

entry Accepted



**APALIS**

sheetanhu

entry Accepted



**Aerodynamic water droplet with strong lightweight bone structure**

LITECAR

tovara

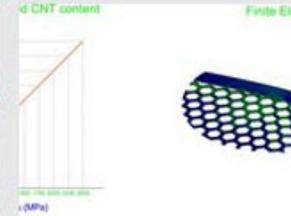
entry Accepted



**Drift EV - a plug and play car**

Rob\_Elison

entry Accepted



**SMART ADDITIVE MANUFACTURING**

arfan

entry Accepted



**Cubozoa**

sagdiyev

entry Accepted



**LITECAR**

zhenik2481

entry Not Valid



**SINTER**

mihal

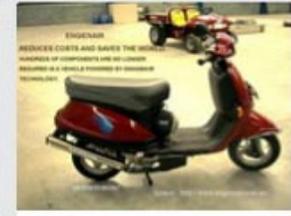
entry Accepted



**SKELETOS**

lakherasumit

entry Accepted



**Meteor - Electric hybrid car with Di...**

dum123

entry Accepted



**The All Aluminum Avanti**



**Ambient Temperature Resistant EL...**

4 X 600W 2-SPEED BRUSHLESS INDUCTION DRIVES  
2 SCREW IN REAR, 2 BALL JOIN FRONT AXLE MOTORS



**renovato**



**1923 Ford Model T Sedan with a S...**

renovato

LITECAR Challenge

Watching 4

Star 0

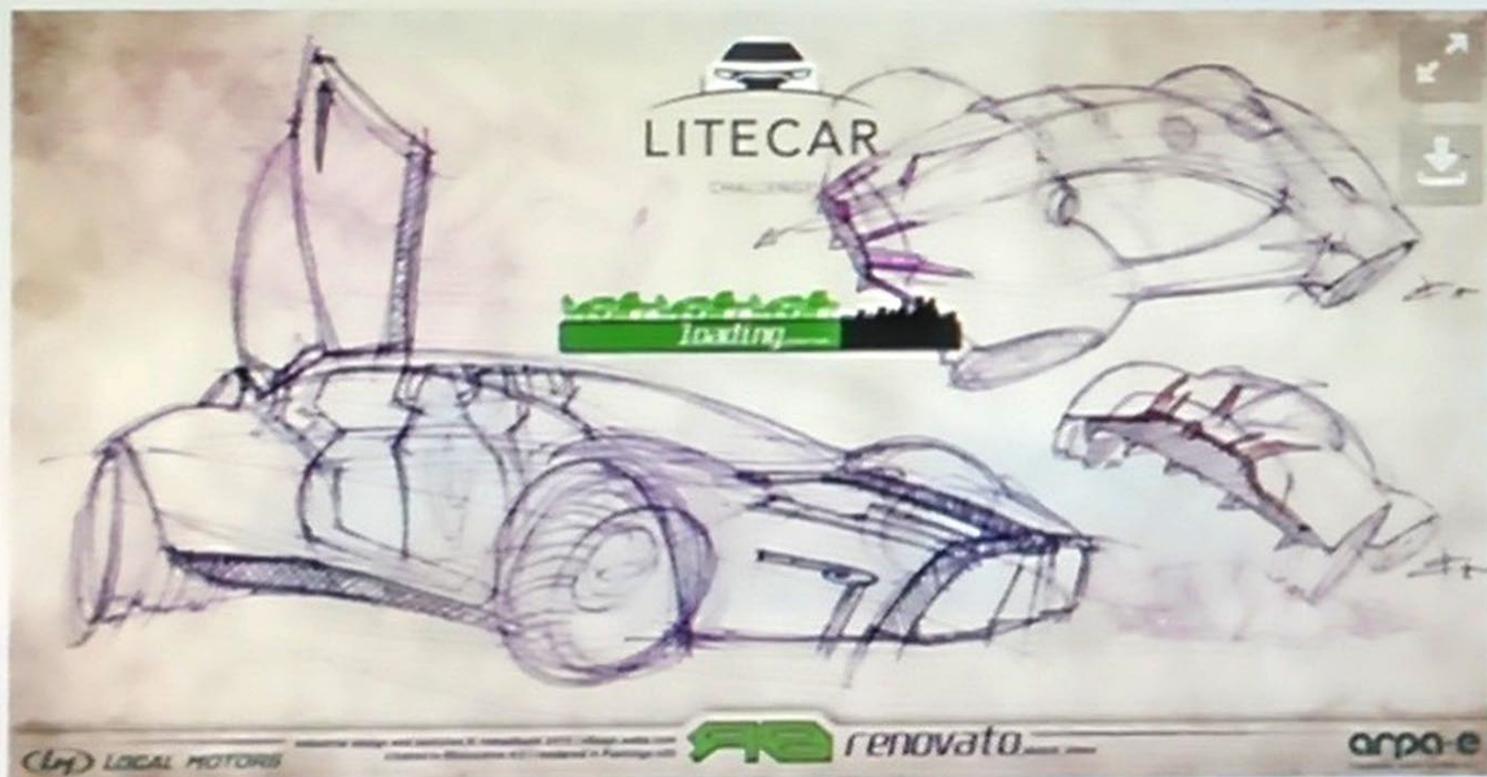
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40 / 139

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romanbasti created 13 days ago

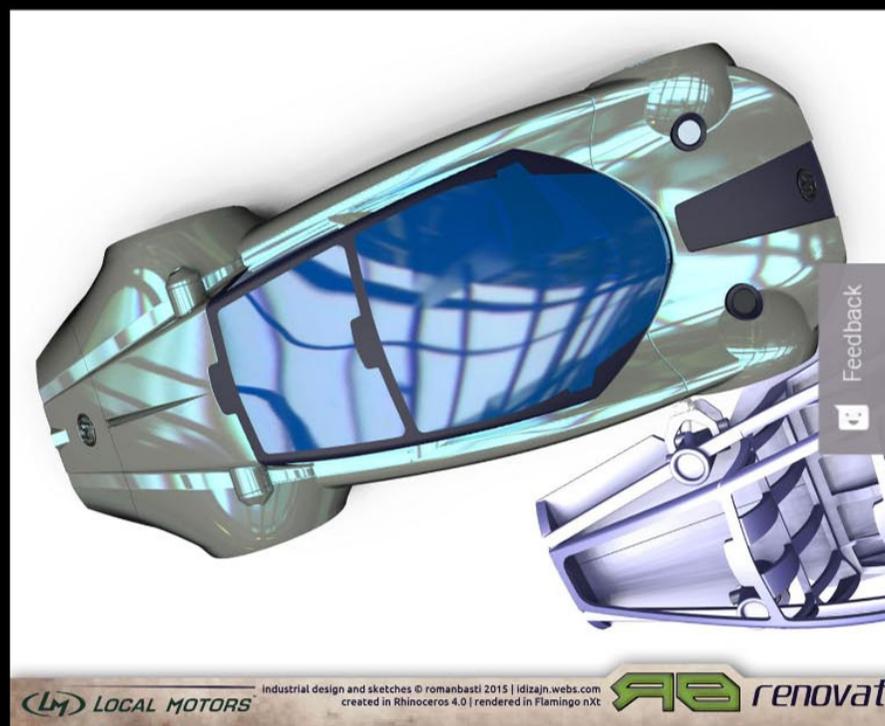


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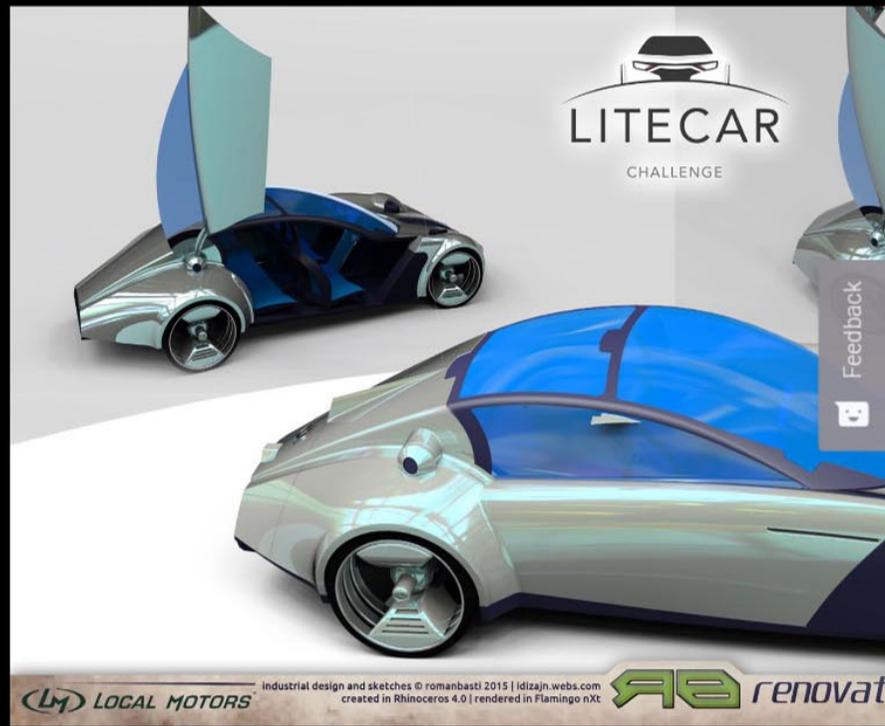
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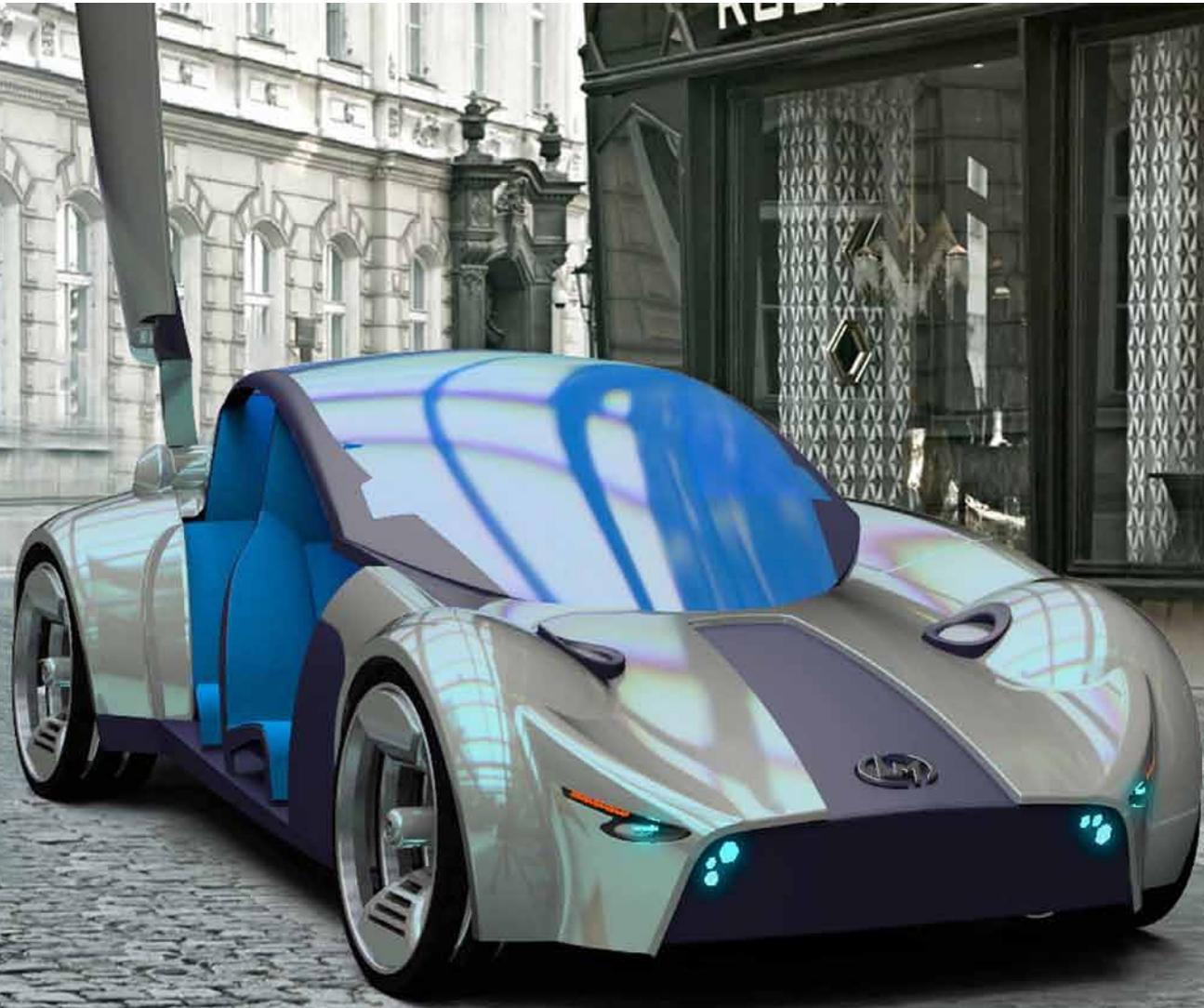
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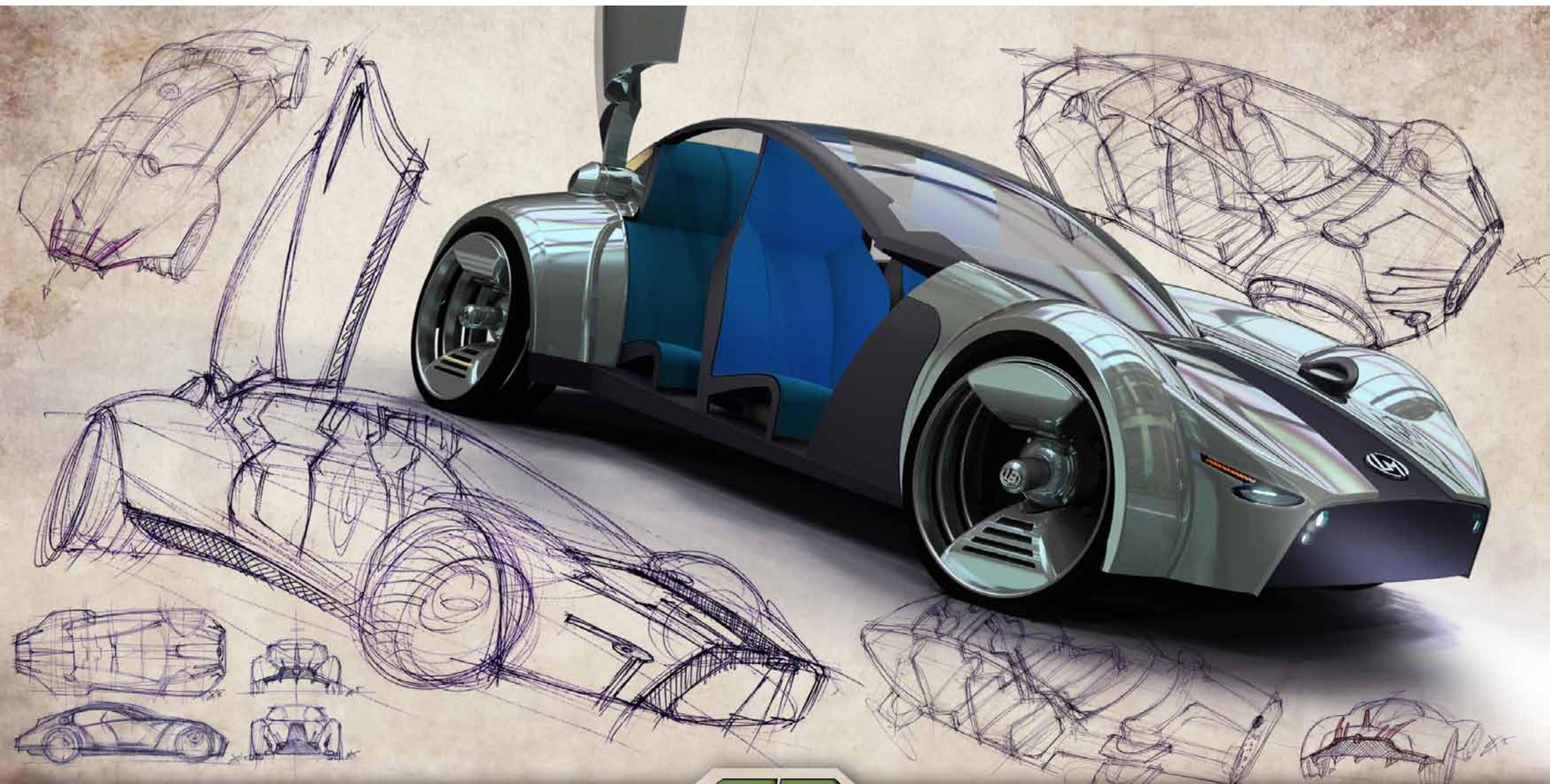




# LITECAR

CHALLENGE





industrial design and sketches © romanbasti 2015 | idizajn.webs.com  
created in Rhinoceros 4.0 | rendered in Flamingo nXt

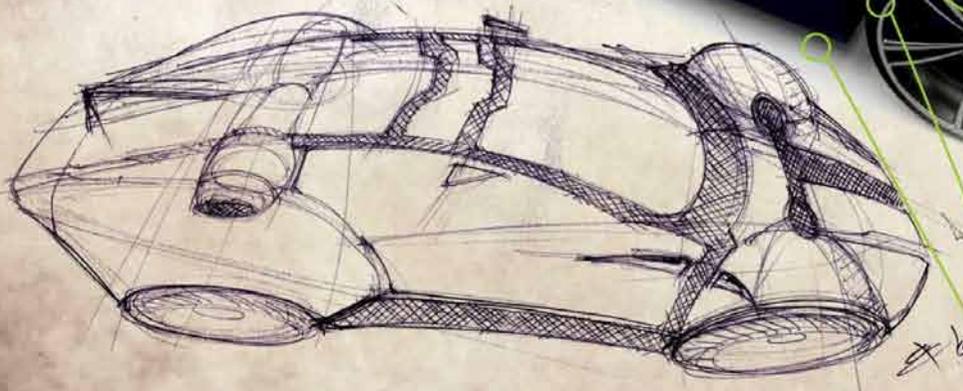
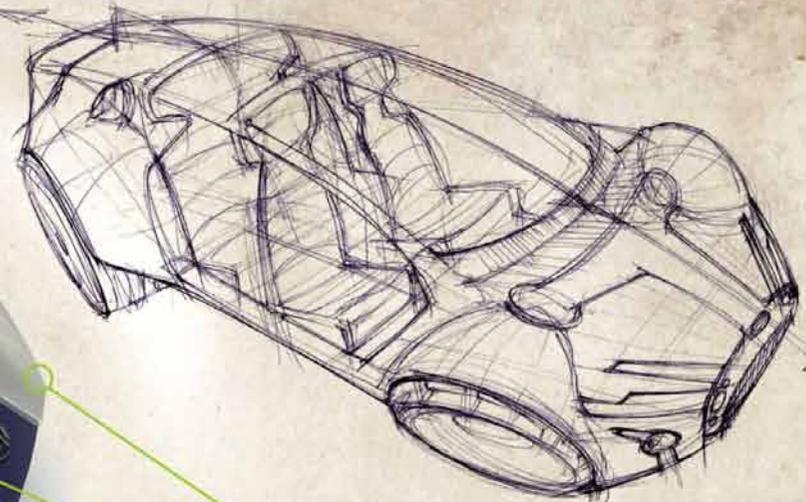
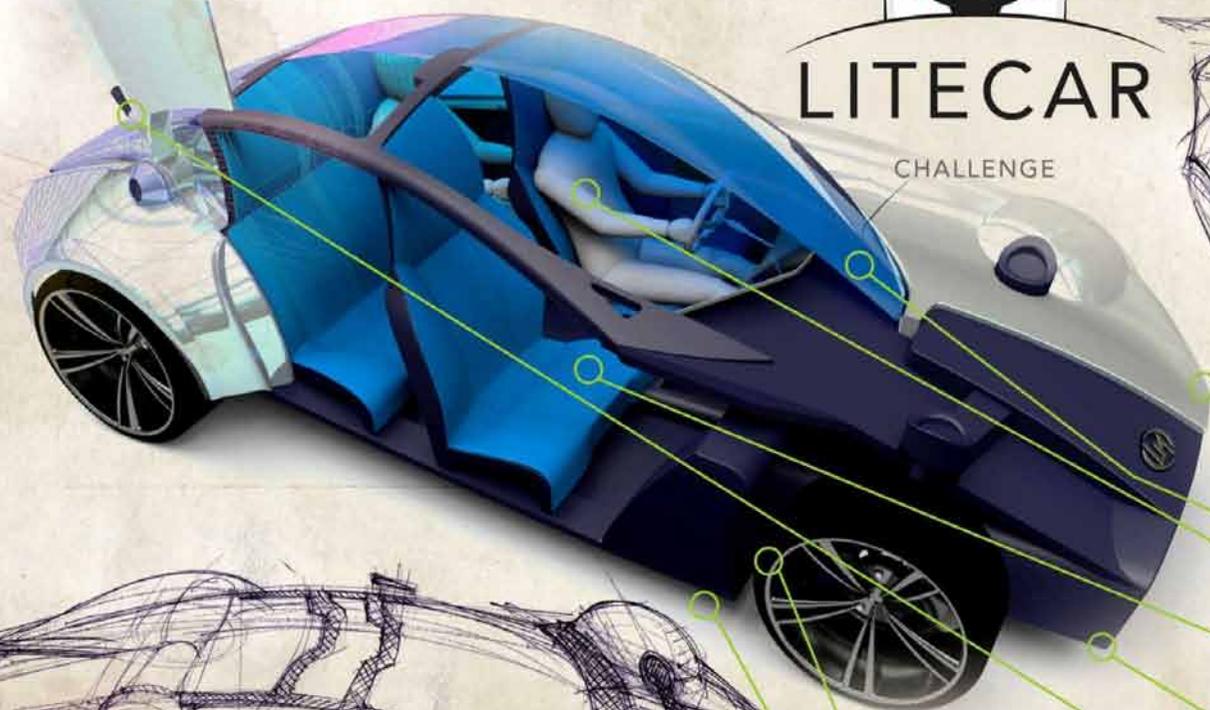
**RB renovato** localmotors.com | LITECAR Challenge design entry

ORCA LOCAL MOTORS LITECAR



# LITECAR

CHALLENGE



### ultra light bodyparts

- graphene / 3D printed multi-material / 65% lighter than with traditional manufacturing methods

### smartphone glass

- half the weight of conventional laminated glass

### 5 passenger seats package

- standard sedan configuration

### Textile over the seats bonnet

- base of seats one piece printed with the bonnet covered with textile

### 3D multimaterial printed bonnet

- ABS plastic compound LNP™ polymeres / combination of about 80 percent ABS plastic and 20 percent carbon fiber reinforcement is tough as metal  
- forwardlooking options of HIGH-TECH MATERIALS used to be 3Dprinted like: nanotechnology and nanomaterials, graphene / 200 times stronger than steel, but as thin as an atom/

### in-wheel Electric motors

- in-wheel Protean Electric motors strengthening steering abilities

### battery pack row

- battery pack row / carbone/ running underneath whole length of concept for a great center weight distribution

### ultra light doors opening upwards both front and back, ONEPIECE

- graphene / 3D printed multi-material

# LITECAR

## CHALLENGE

**C pillar**  
 - inside the bonnet to follow nowadays safety standards  
 - made of a 3D printed multi-material composites

**B pillar**  
 - inside the bonnet to follow nowadays safety standards  
 - made of a 3D printed multi-material composites

**A pillar**  
 - inside the bonnet to follow nowadays safety standards  
 - made of a 3D printed multi-material composites

**cross pillar running in door /5/**  
 - inside the bonnet to follow 3000IMPACT  
 nowadays safety standards made of  
 a 3D printed multi-material composites

**foam 1 kind of impact foam**  
 - impact absorbing structure being part of a front

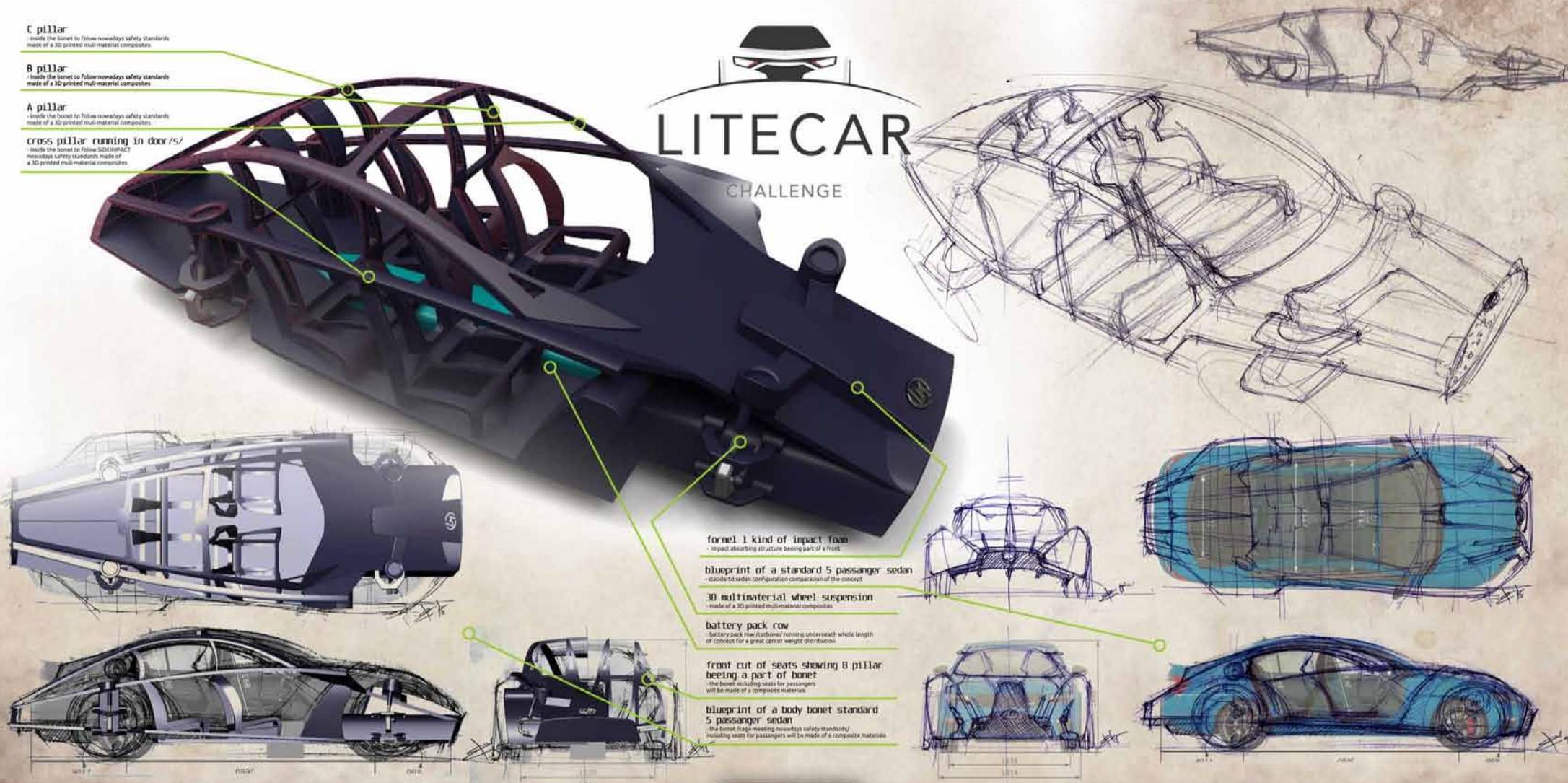
**blueprint of a standard 5 passenger sedan**  
 - standard sedan configuration comparison of the concept

**3D multmaterial wheel suspension**  
 - made of a 3D printed multi-material composites

**battery pack row**  
 - battery pack row further tuning underneath whole length  
 of concept for a great center weight distribution

**front cut of seats showing B pillar  
 being a part of bonnet**  
 - the bonnet including seats for passengers  
 will be made of a composite materials

**blueprint of a body bonnet standard  
 5 passenger sedan**  
 - the bonnet /cage meeting nowadays safety standards/  
 including seats for passengers will be made of a composite materials



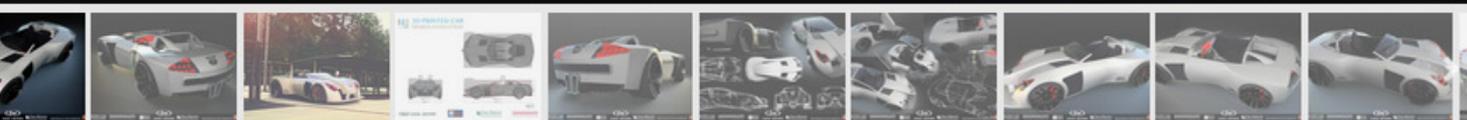


LITECAR  
CHALLENGE

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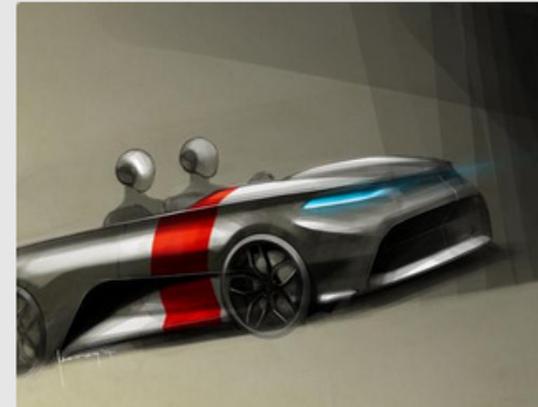
romanbasti

36 minutes ago



pg   RIS - 3D Printed Vehi...jpg   -Nemi Bone- 3D Prin...jpg   -Nemi Bone- 3D Prin...jpg   -Nemi Bone- 3D Prin...jpg   -Nemi Bone- 3D Prin...jpg   Zobrazit' vse

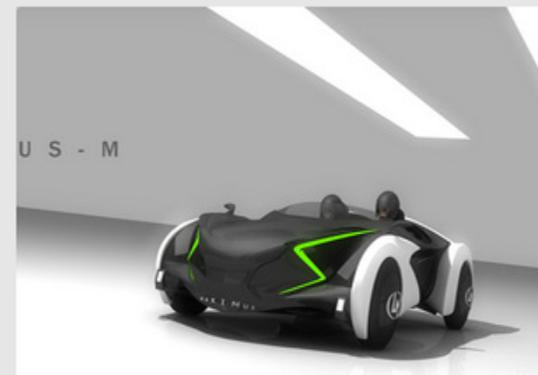
Other Entries



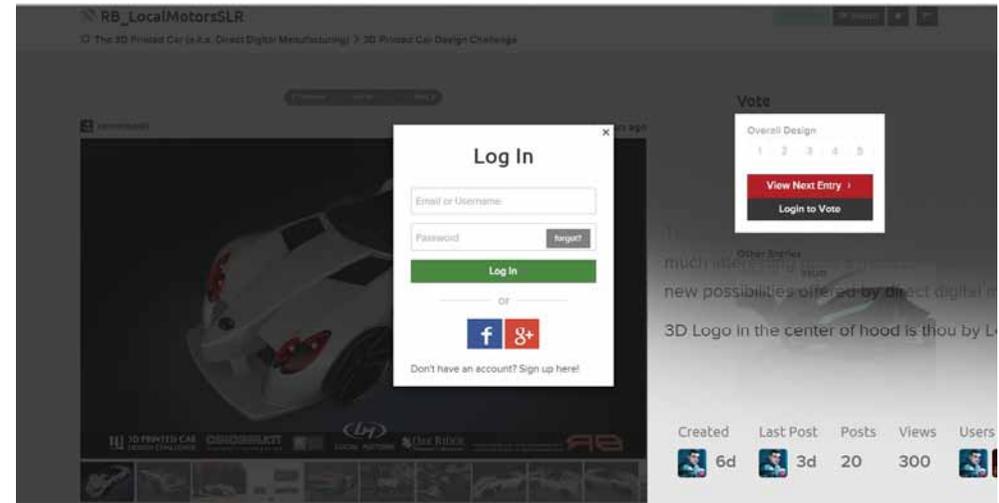
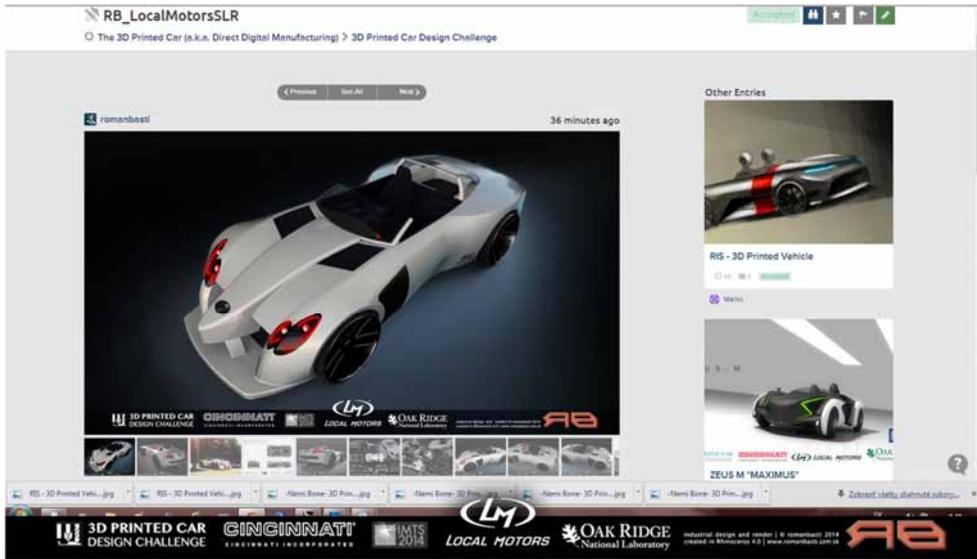
RIS - 3D Printed Vehicle

4d   4   Accepted

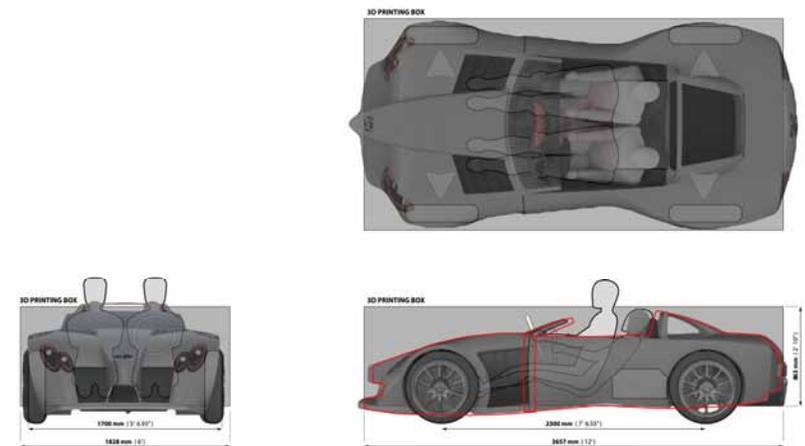
Marko



ZEUS M "MAXIMUS"



3D PRINTED CAR DESIGN CHALLENGE



SCALE: 1/10  
 APRIL 2014



