Converging into a final artifact

Converging into a final artifact

Next iteration

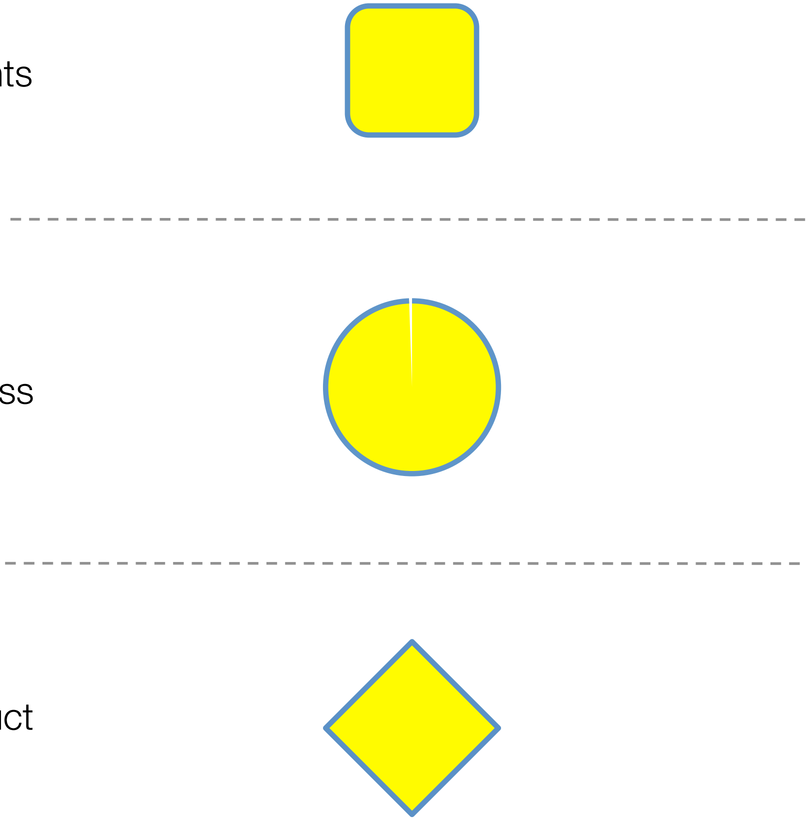
Converging into a final artifact

Styling

Main topics

- Finalizing the design
- Discuss design styling & styling for digital fabrication
- Review of online 3D printing and prototyping services
- Detailed review on several examples

The design process: critique, intuition, and skills

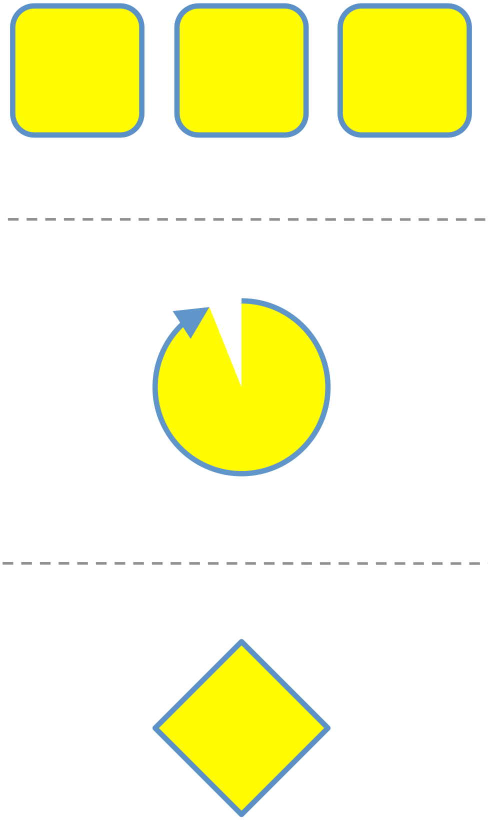


Requirements & constraints

The modeling process

The output product

The design process: critique, intuition, and skills



Requirements & constraints

- Prioritizing

The modeling process

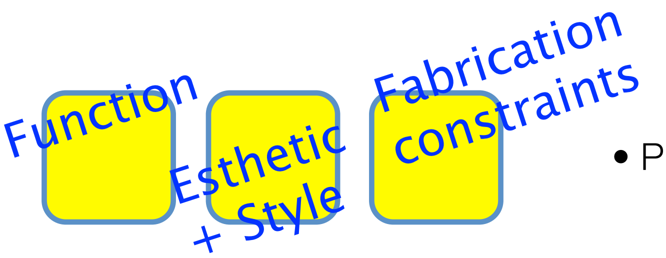
- Search
- Implementation
- Evaluation

The output product

- Mockups & prototypes
- Rendering
- Working model / product

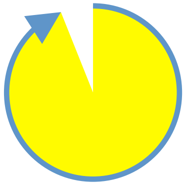
The design process: critique, intuition, and skills

Requirements & constraints


Function
Esthetic + Style
Fabrication constraints

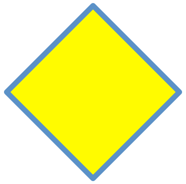
- Prioritizing

The modeling process



- Search
- Implementation
- Evaluation

The output product



- Mockups & prototypes
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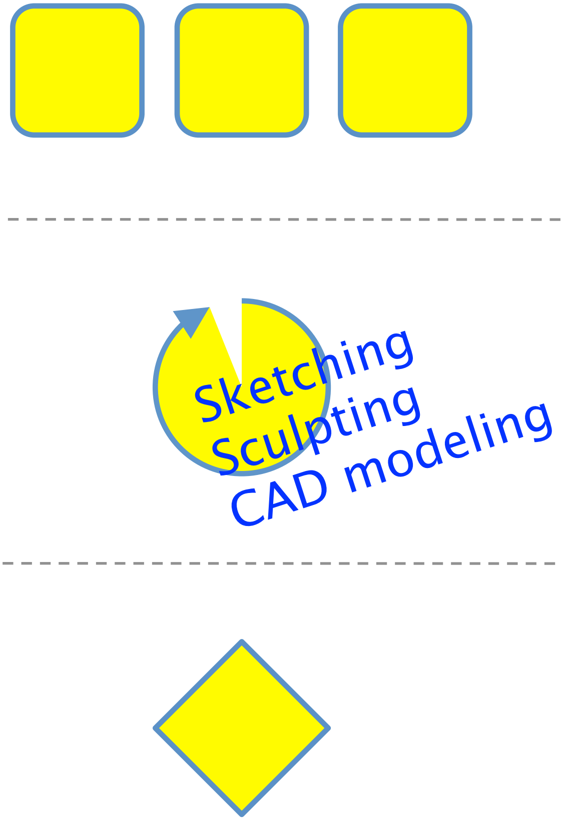
- Working model / product

The design process: critique, intuition, and skills


Sketching
Sculpting
CAD modeling

Requirements & constraints

- Prioritizing

The modeling process

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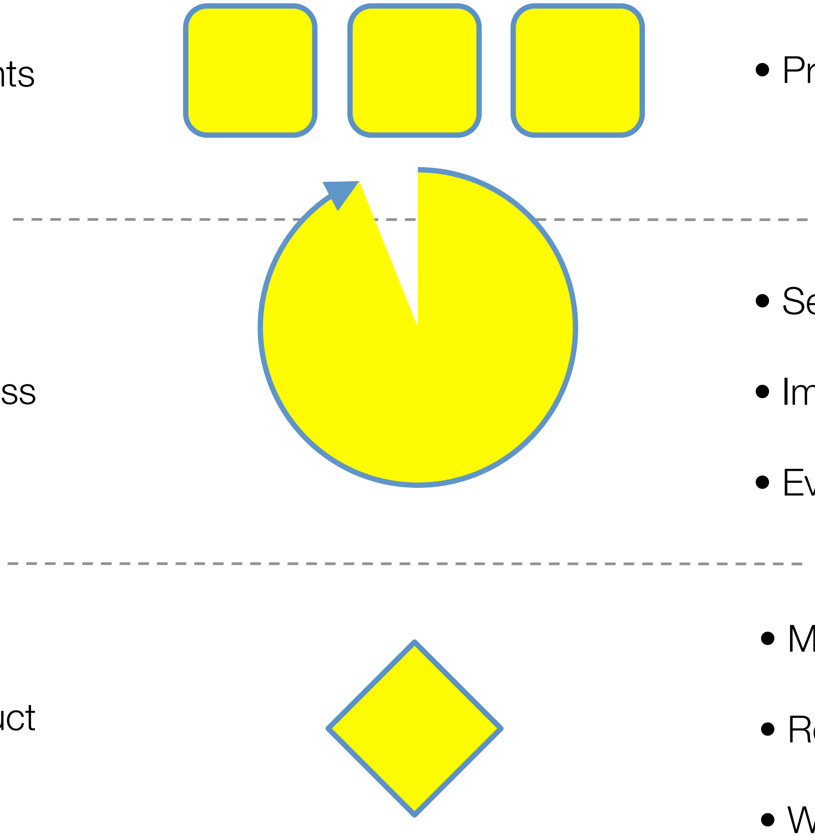
The design process: critique, intuition, and skills



Requirements & constraints

- Prioritizing

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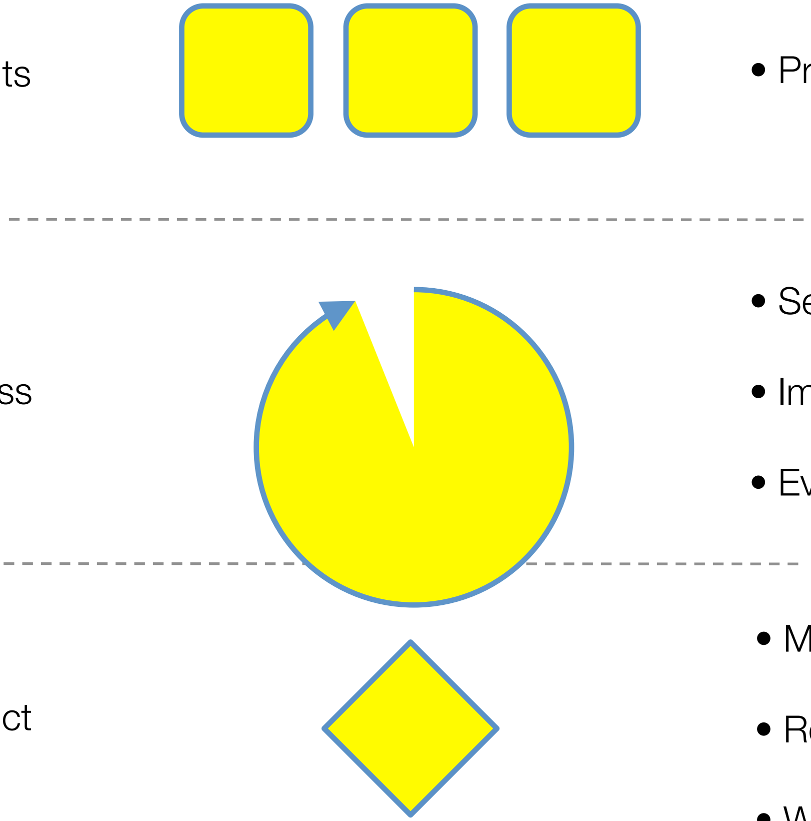
The design process: critique, intuition, and skills



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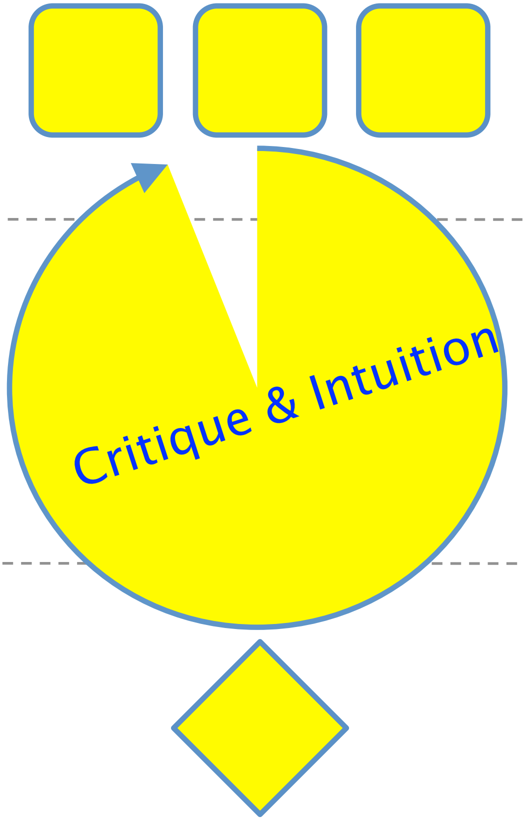

Requirements & constraints

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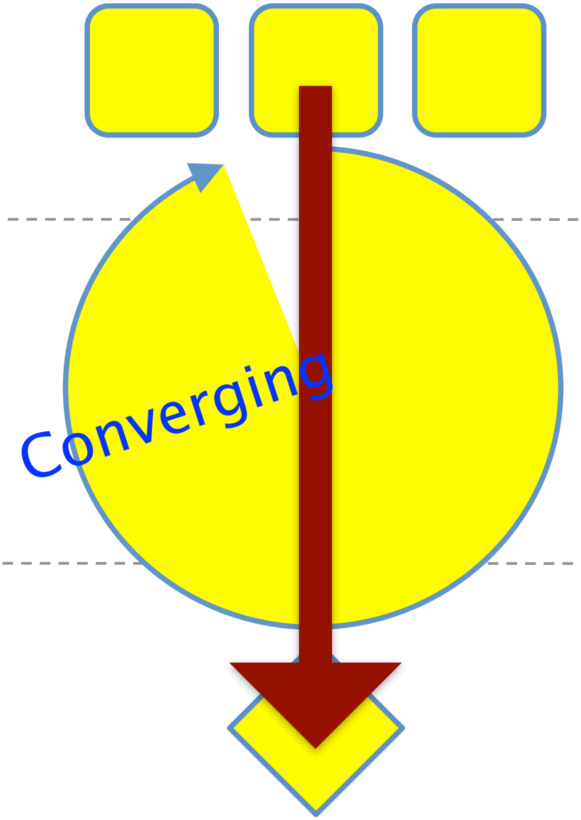
The design process: critique, intuition, and skills



Requirements & constraints

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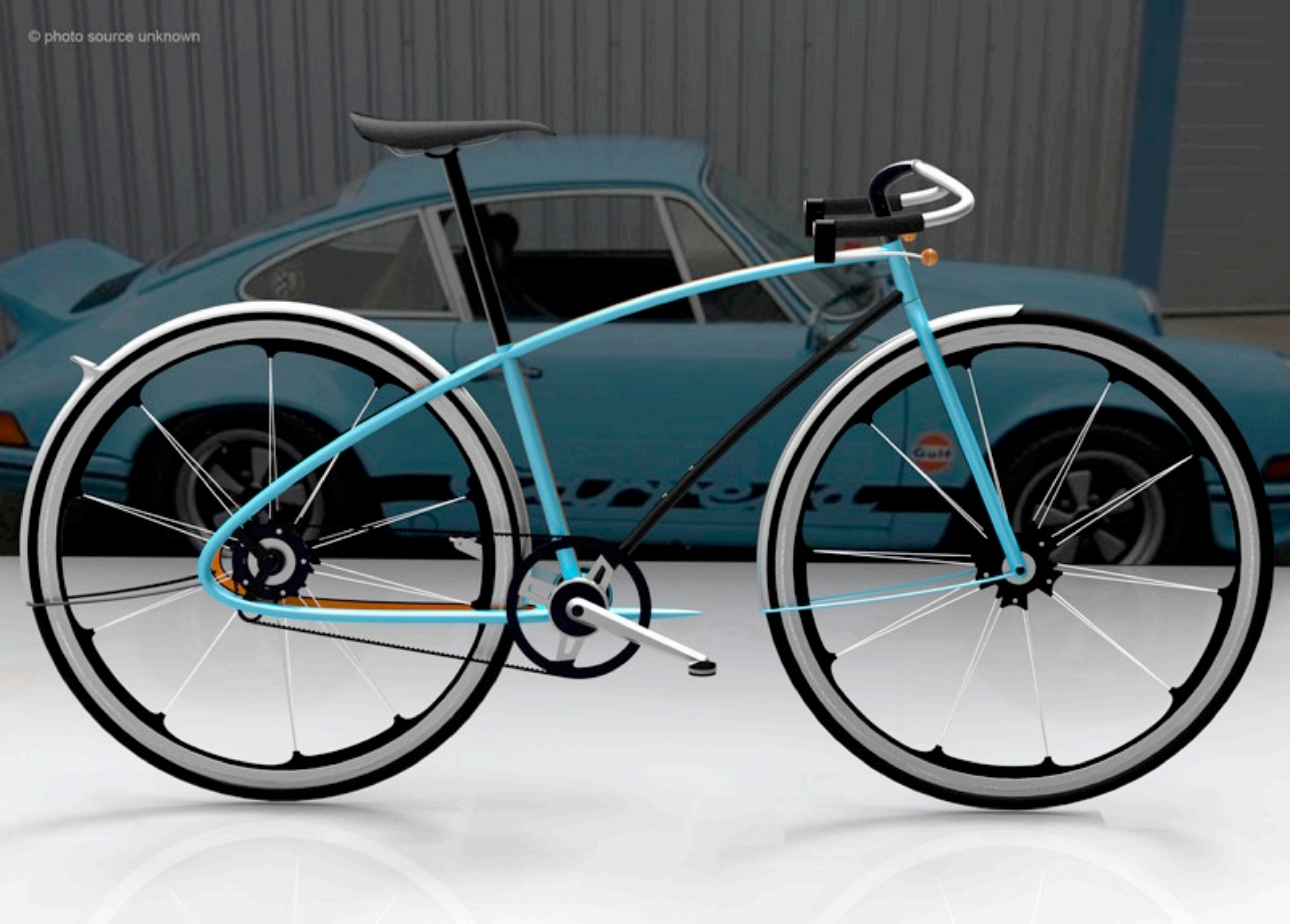
Styling: giving style to our design

- Designer – user communication channel
- Intertwined with other design processes
- Visual character:

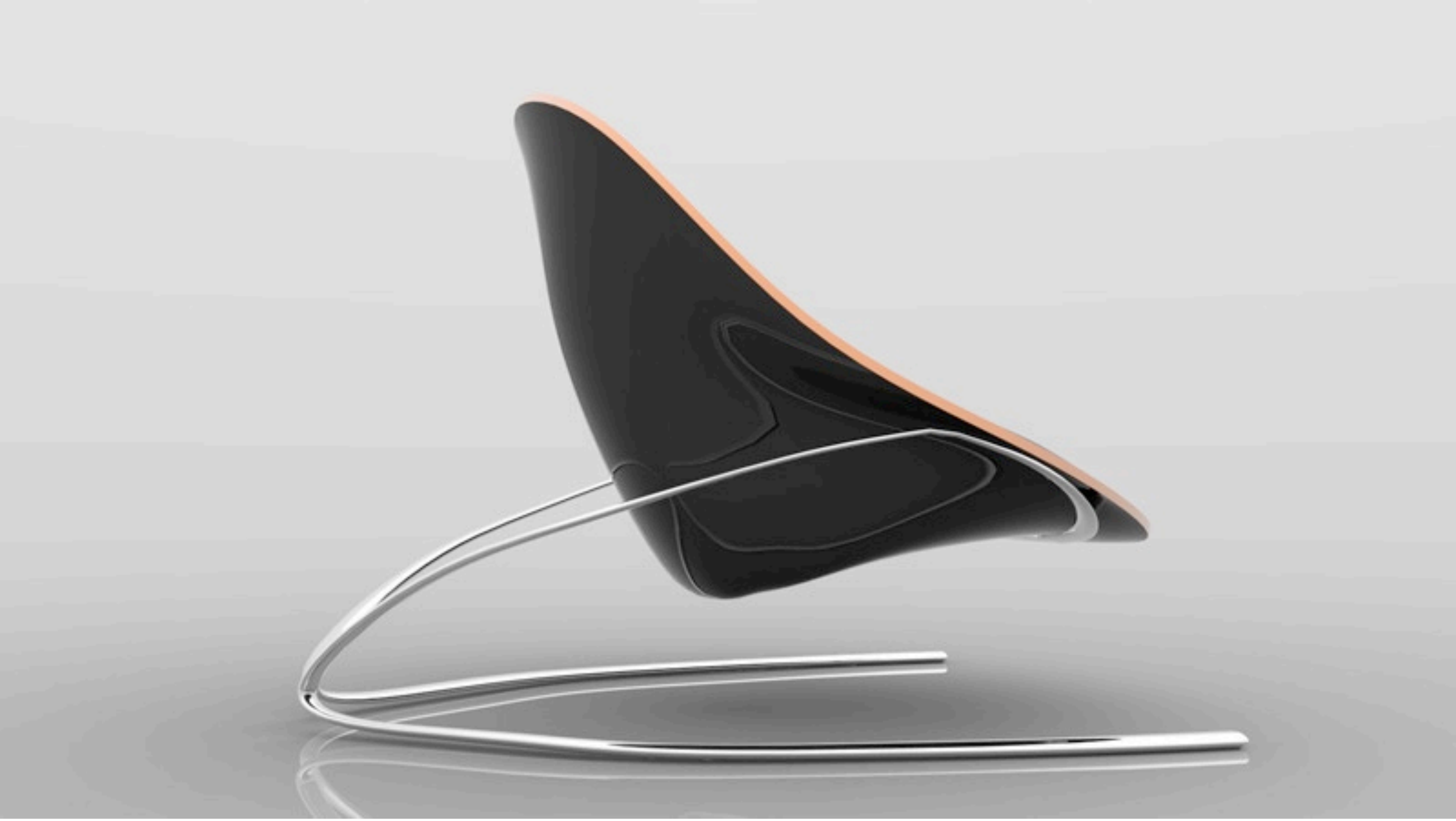
  - Belonging
  - Cultural & historical context
  - Economic & social context


© photo source unknown

David Schultz's bike, Porsche "next design challenge" competition

© photo courtesy Darren_Curtis on Flickr

David Schultz’s bike, Porsche “next design challenge” competition



Evan Knudsen’s P9 chair, Porsche “next design challenge”

Styling: practice

- Inventor – designer - stylist
- Styling as form of maintenance
- Styling as form of competition
- Breakthrough

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- Inventor – designer - stylist
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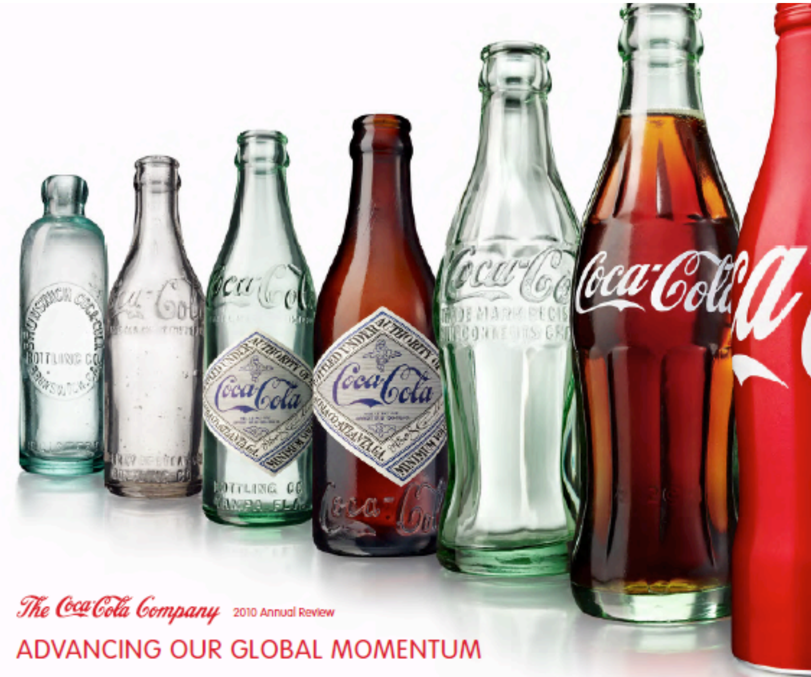
The Coca-Cola Company
2010 Annual Review
ADVANCING OUR GLOBAL MOMENTUM

Styling: practice

- Inventor – designer - stylist
- Styling as form of maintenance
- Styling as form of competition
- Breakthrough

Styling: practice

- Inventor – designer - stylist
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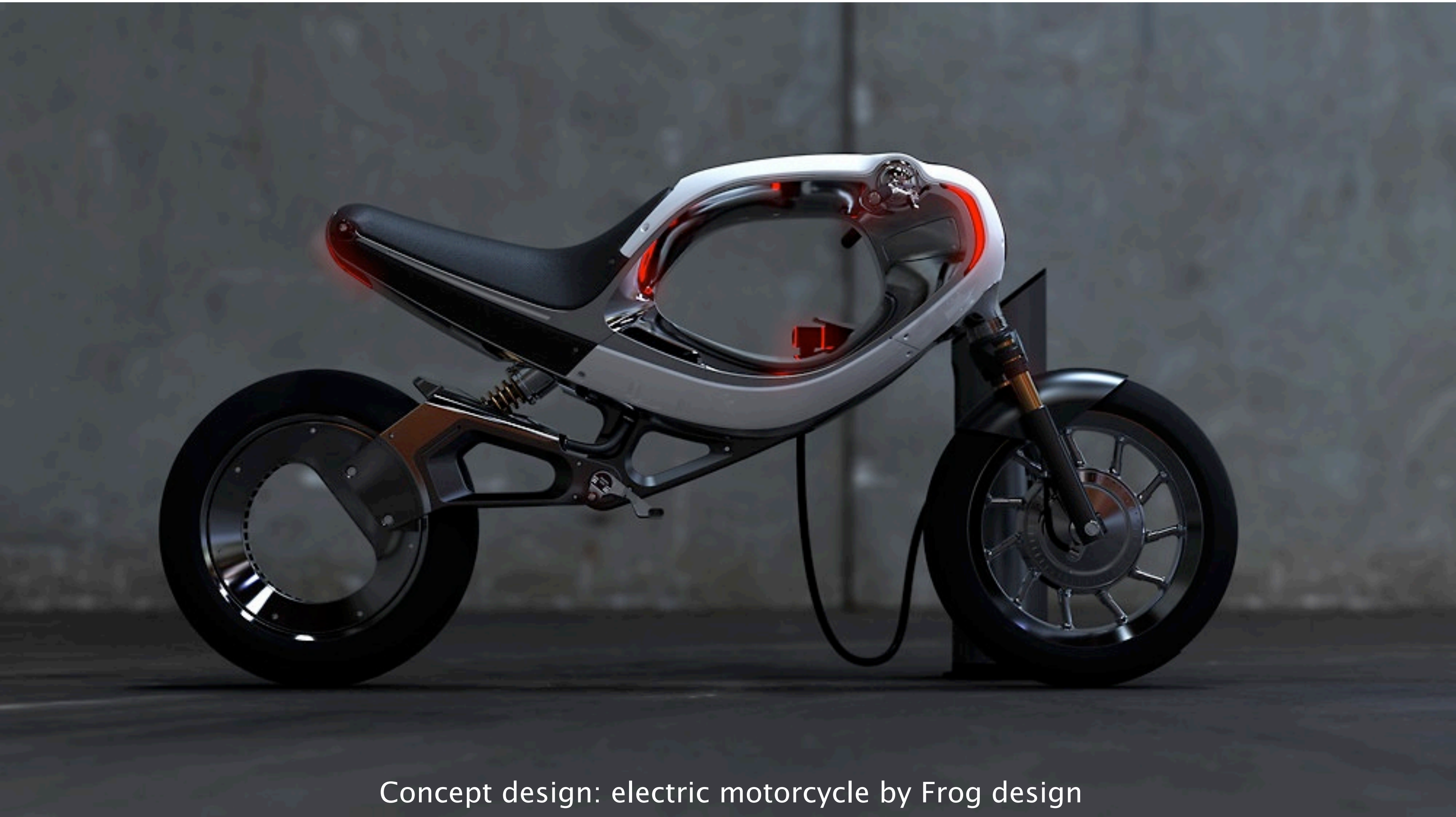
Styling: practice



Concept design: electric motorcycle by Frog design

Styling: looking for balance

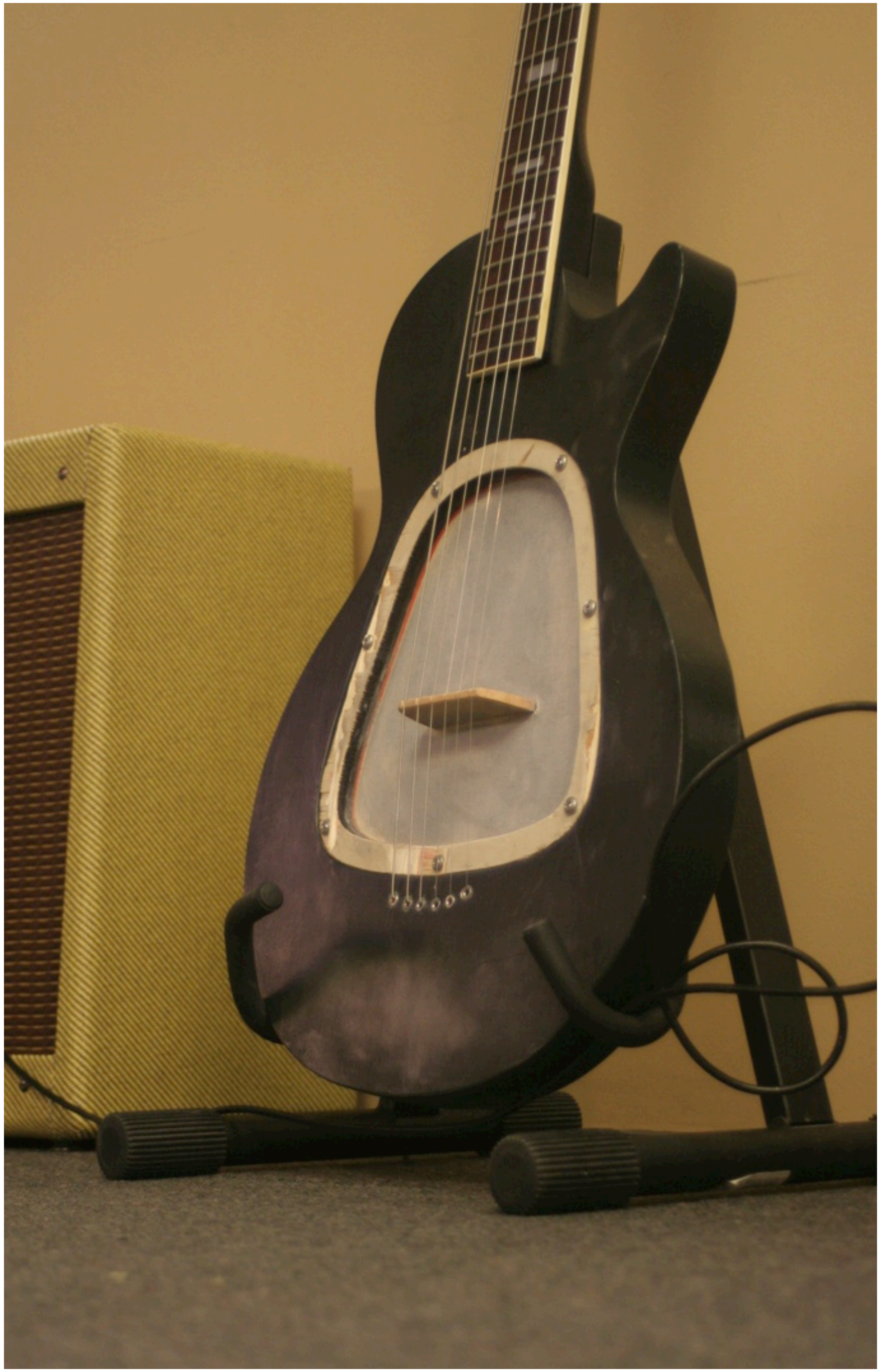
- Form follows function
- Or… function follows form
- Proportions – line vs. volume, symmetry, rhythm, shapes
- Details – connectors, functional elements
- Colors

neocraft

The Guitar Project 2008
Ambient Intelligence, Media Lab, MIT

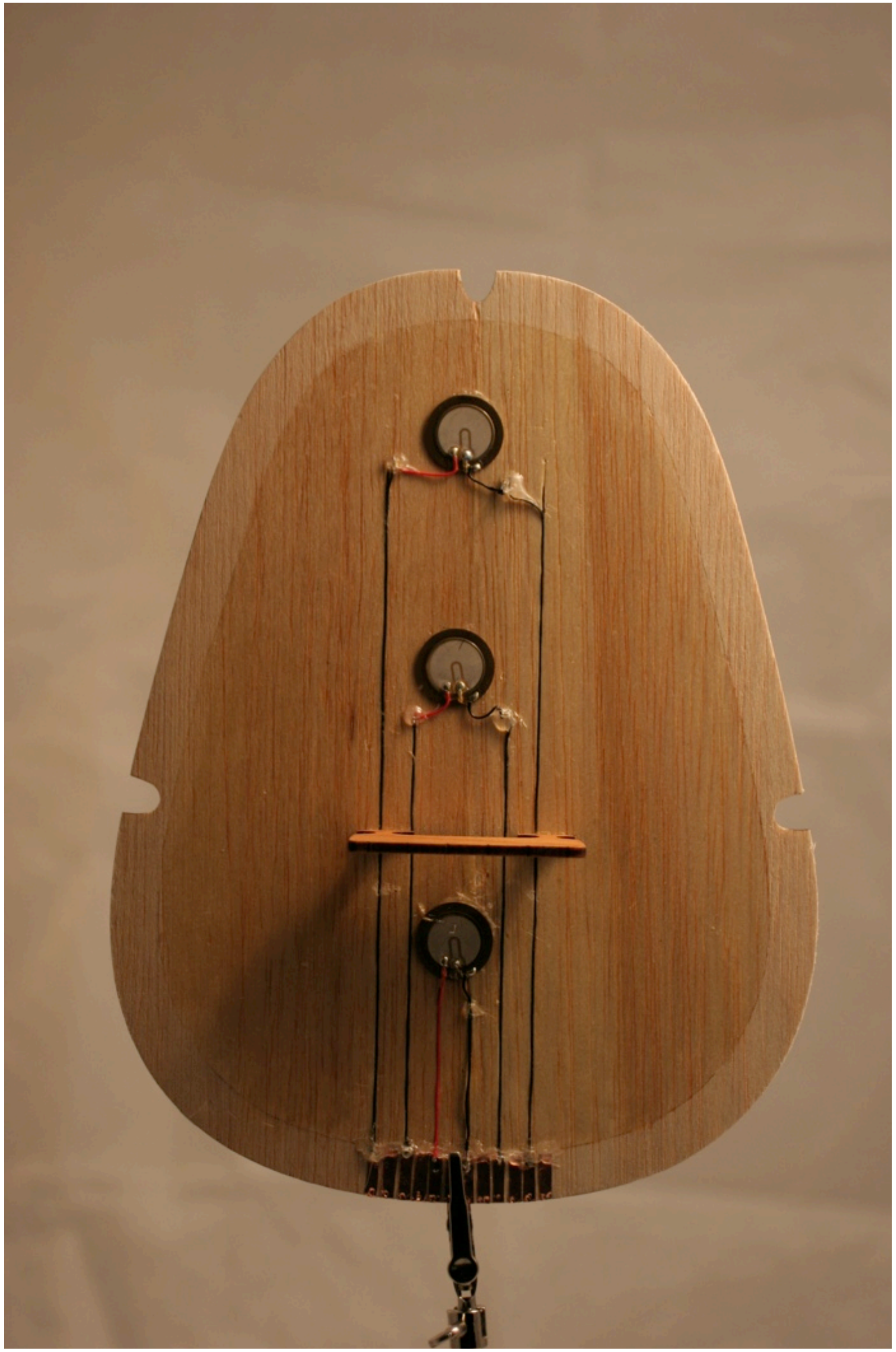
Review:
The Chameleon Guitar

- 0th prototype



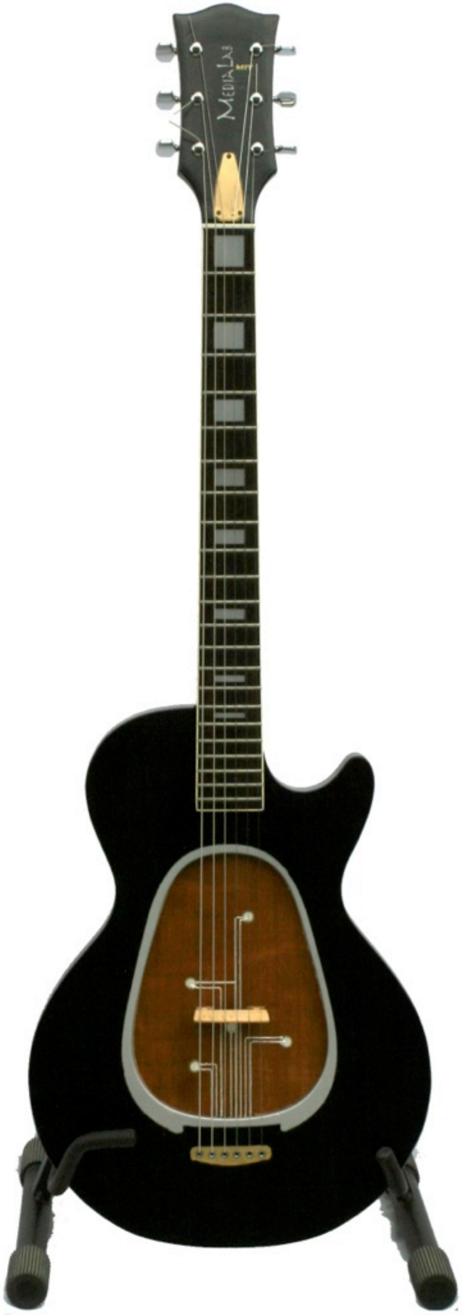
Review:
The Chameleon Guitar

- Exploration



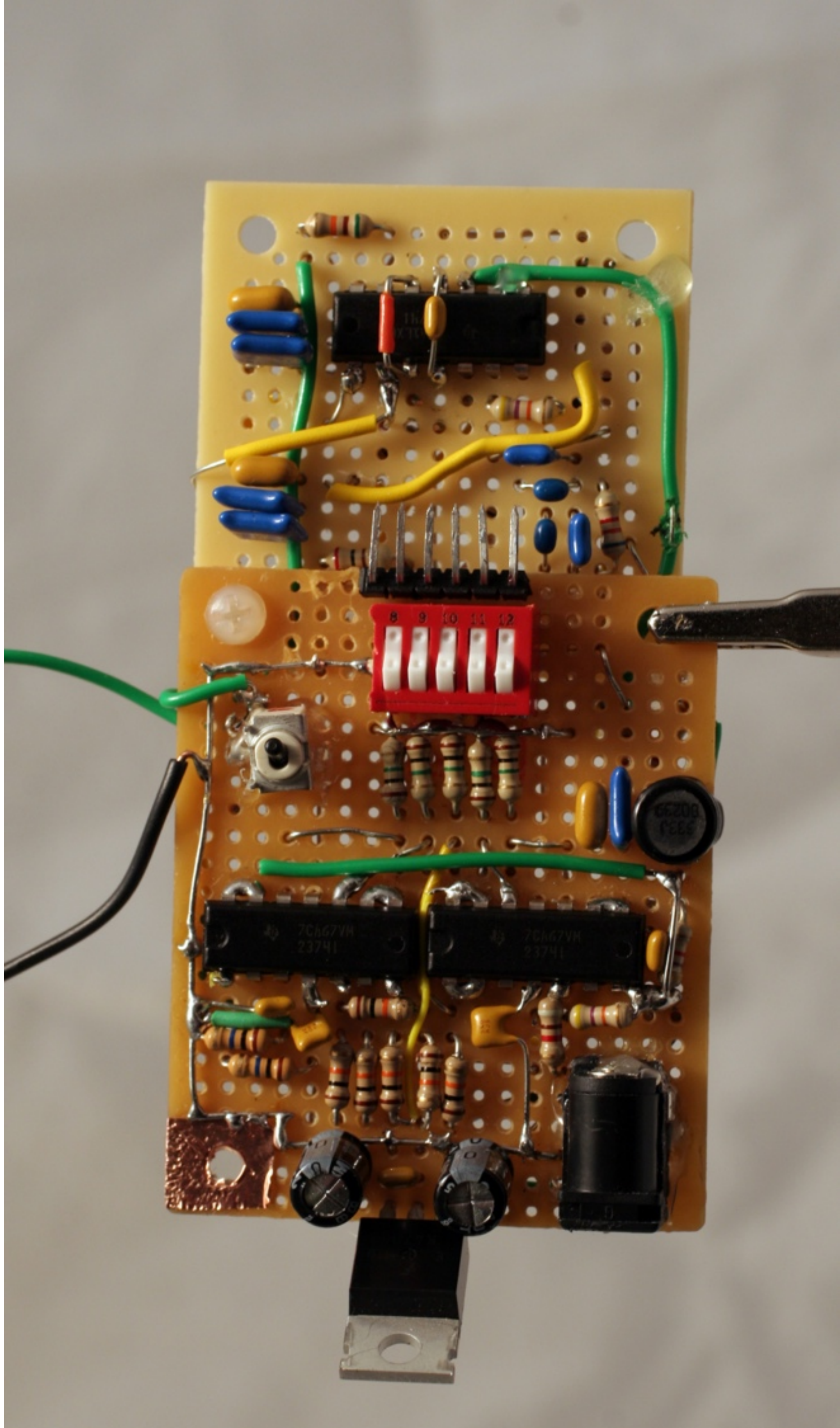
Review:
The Chameleon Guitar

- 1st prototype



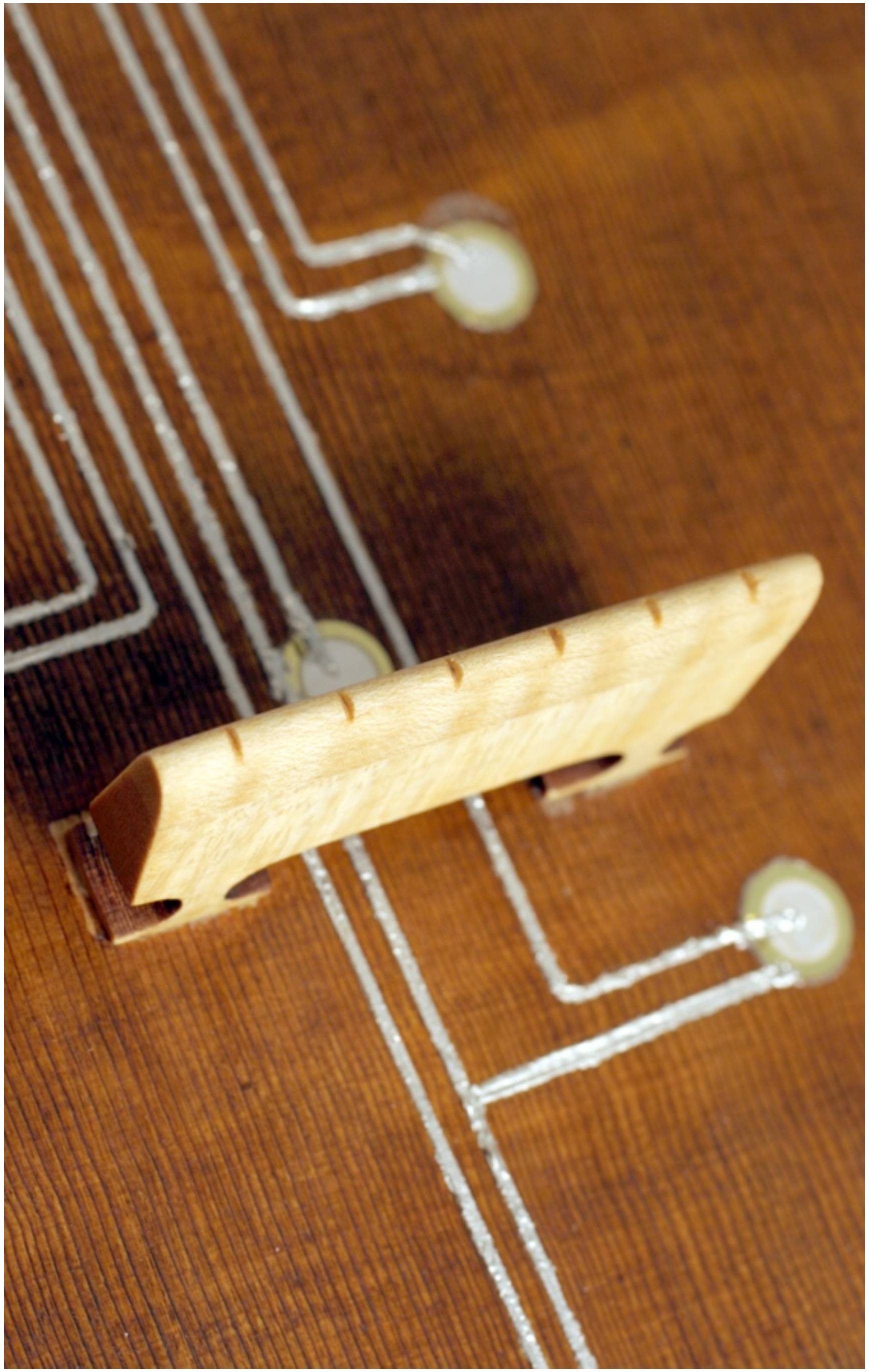
Review:
The Chameleon Guitar

- 1st prototype

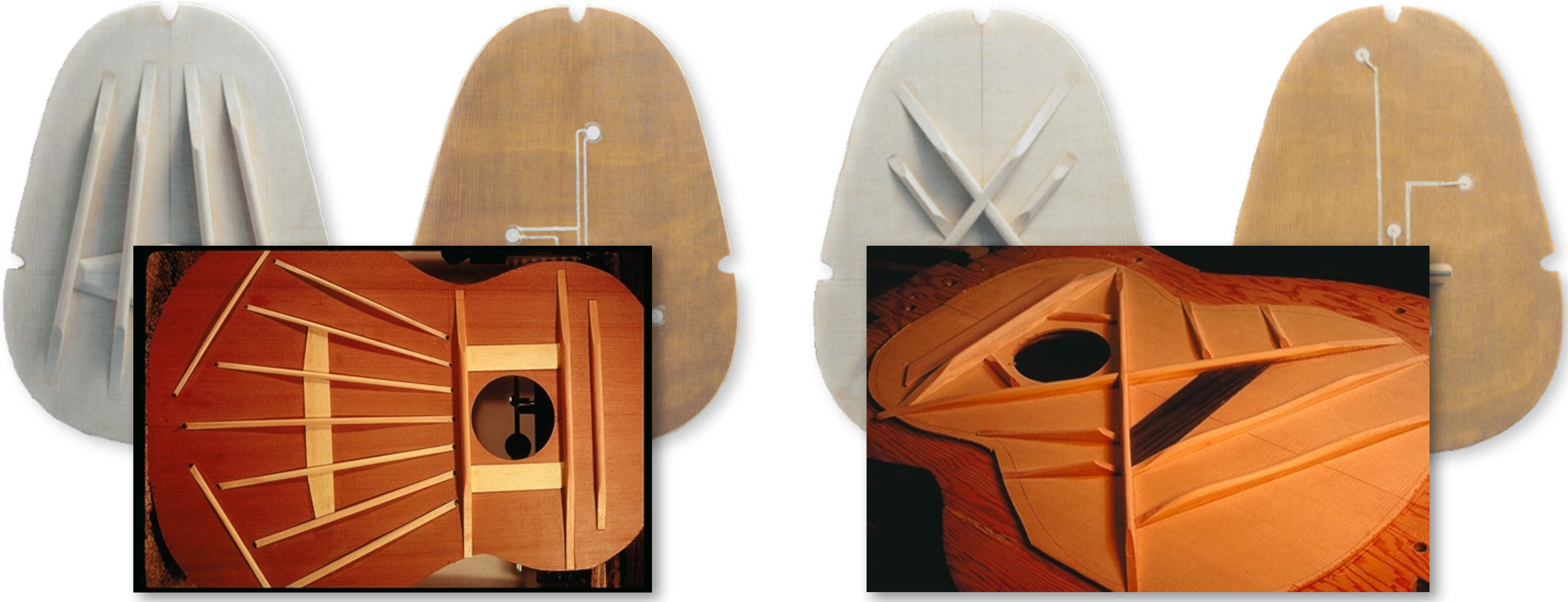


Review:
The Chameleon Guitar

- 1st prototype

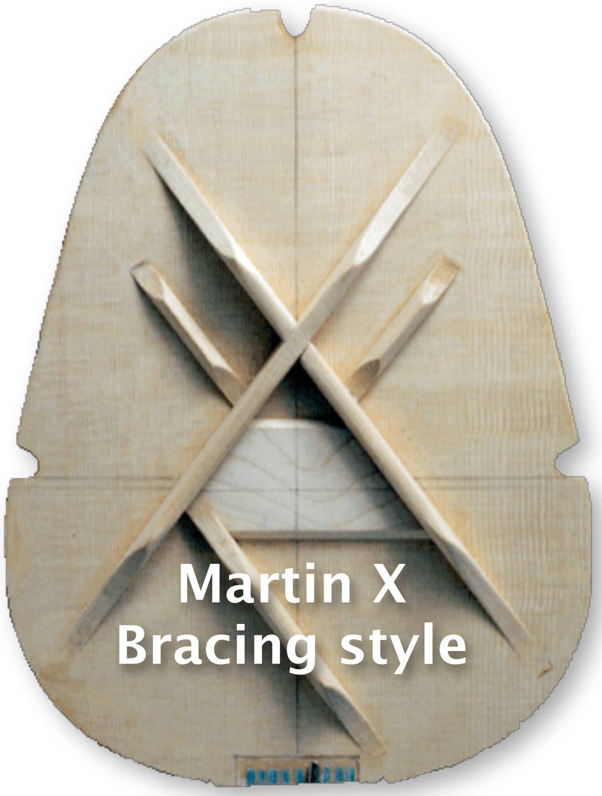


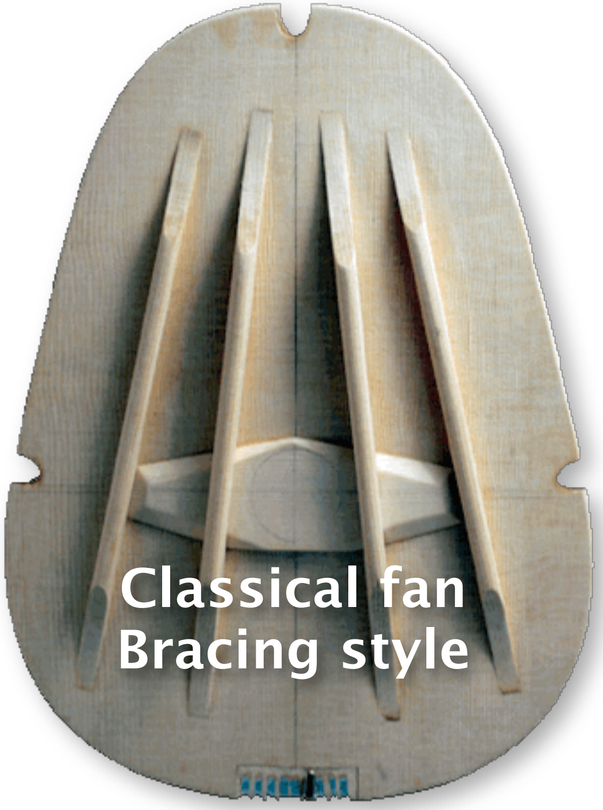
Review:
The Chameleon Guitar



Top Guitar Bracing by Shel Sax
community.middlebury.edu/~sax/

Review:
The Chameleon Guitar

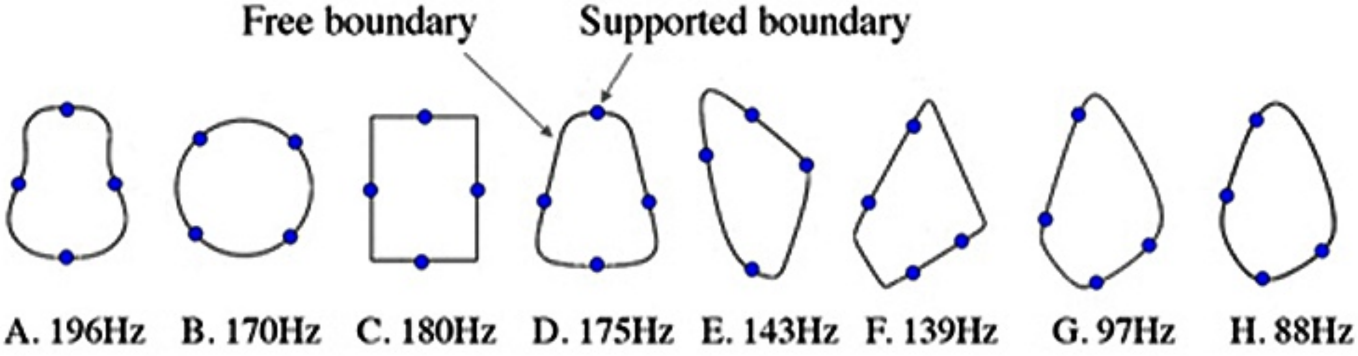

Martin X
Bracing style


Classical fan
Bracing style

Sound Examples

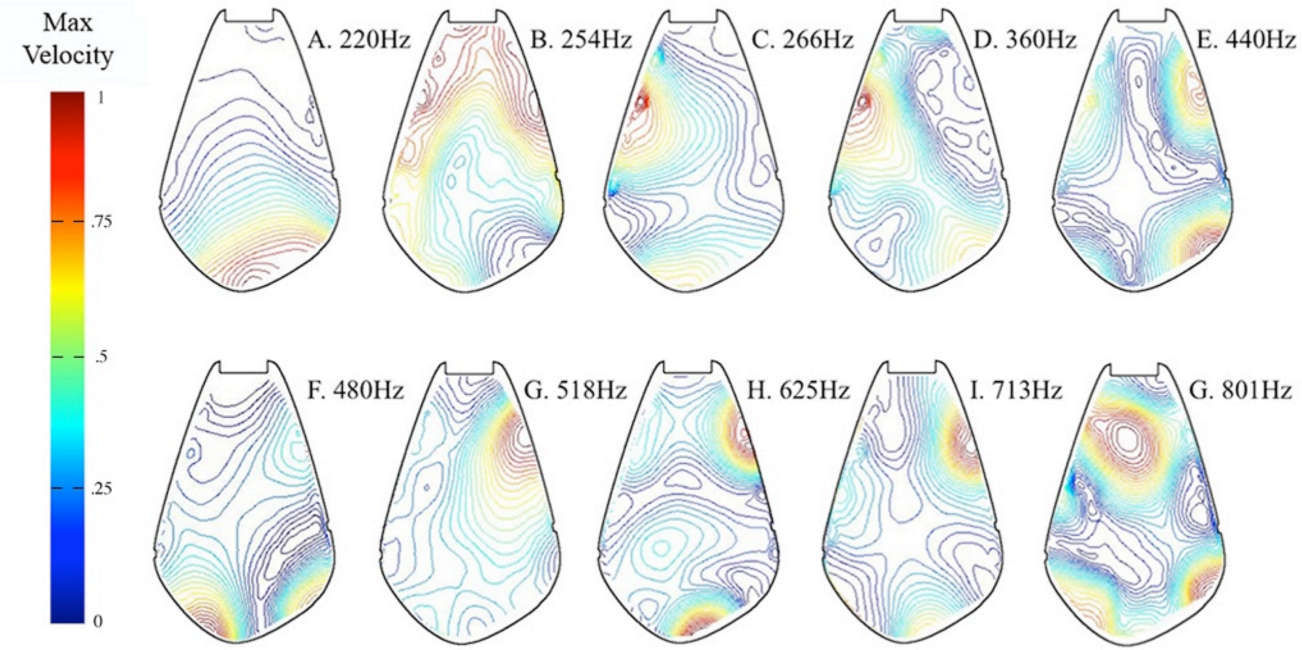
Review:
The Chameleon Guitar

- Science – resonator design & sensor positioning


Free boundary
Supported boundary
A. 196Hz
B. 170Hz
C. 180Hz
D. 175Hz
E. 143Hz
F. 139Hz
G. 97Hz
H. 88Hz

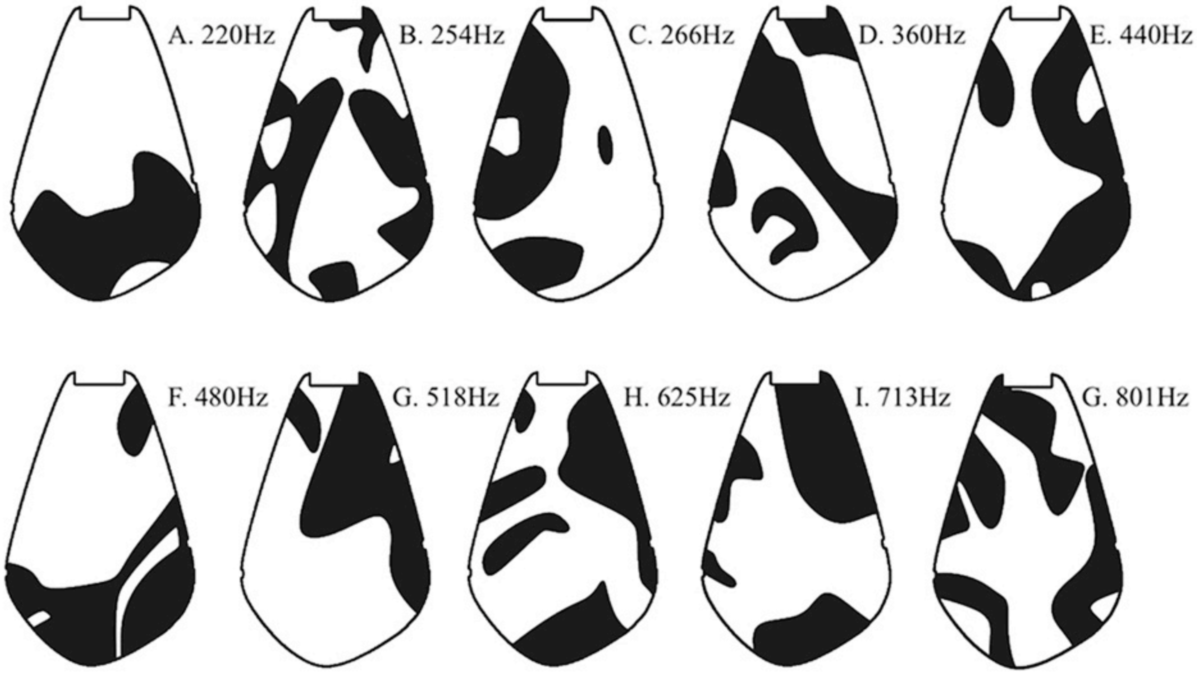
Review:
The Chameleon Guitar

- Science – resonator design & sensor positioning



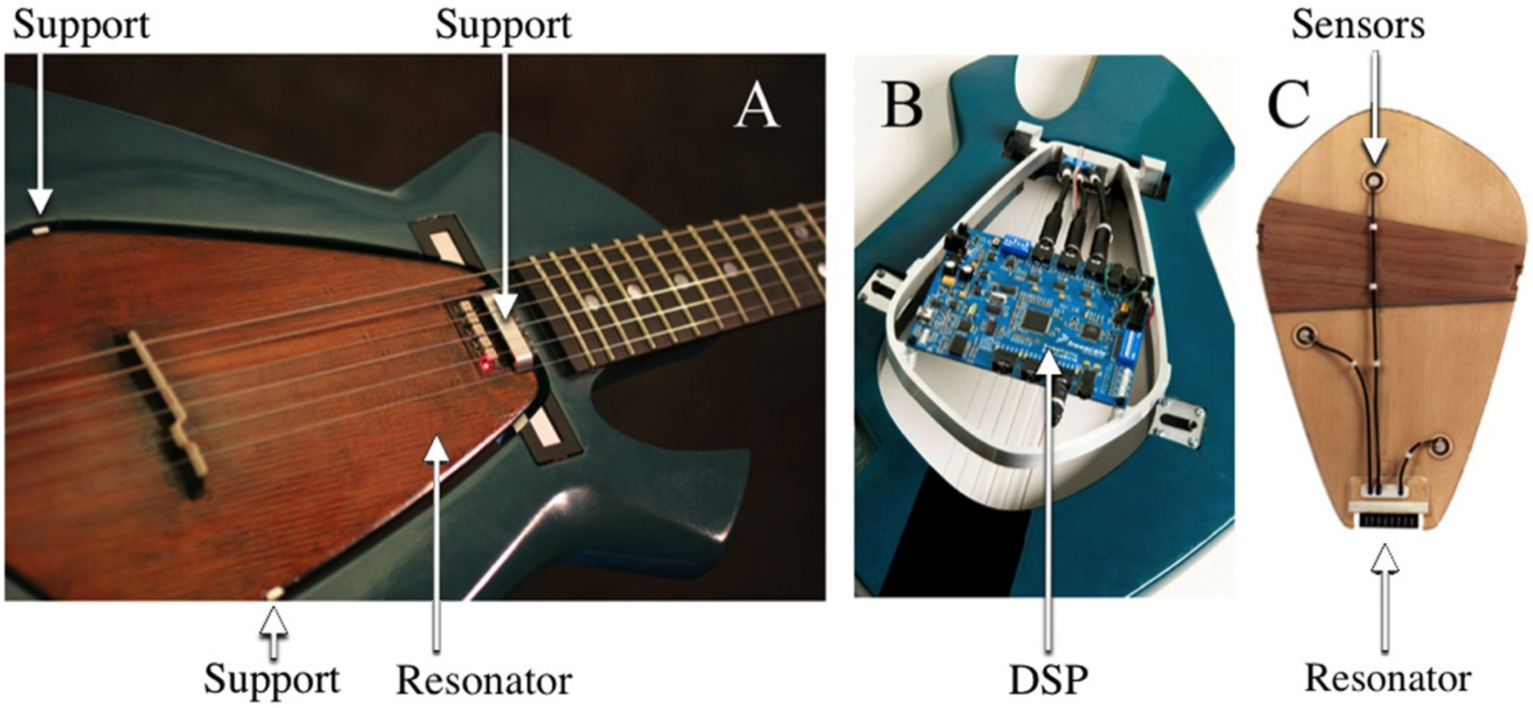
Review:
The Chameleon Guitar

- Science – resonator design & sensor positioning


A. 220Hz
B. 254Hz
C. 266Hz
D. 360Hz
E. 440Hz
F. 480Hz
G. 518Hz
H. 625Hz
I. 713Hz
G. 801Hz

Review:
The Chameleon Guitar

- 2nd prototype

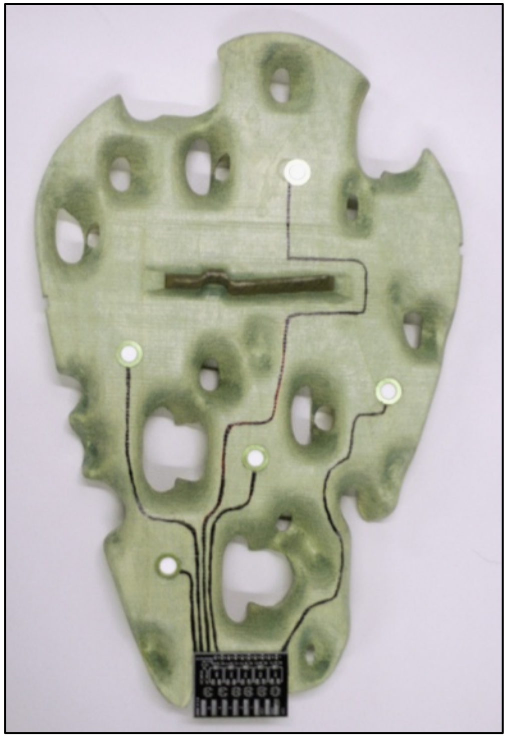

Support
Support
A
Support
Resonator
B
DSP
Sensors
C
Resonator

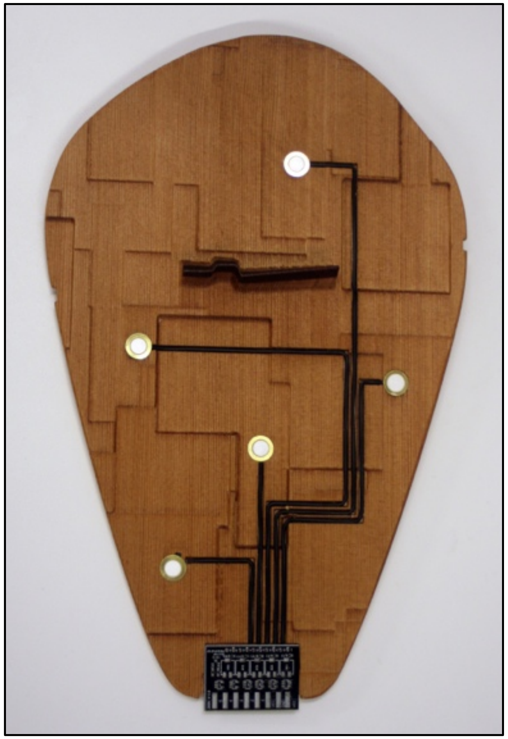
Review:
The Chameleon Guitar

- 2nd prototype: resonators

Review:
The Chameleon Guitar

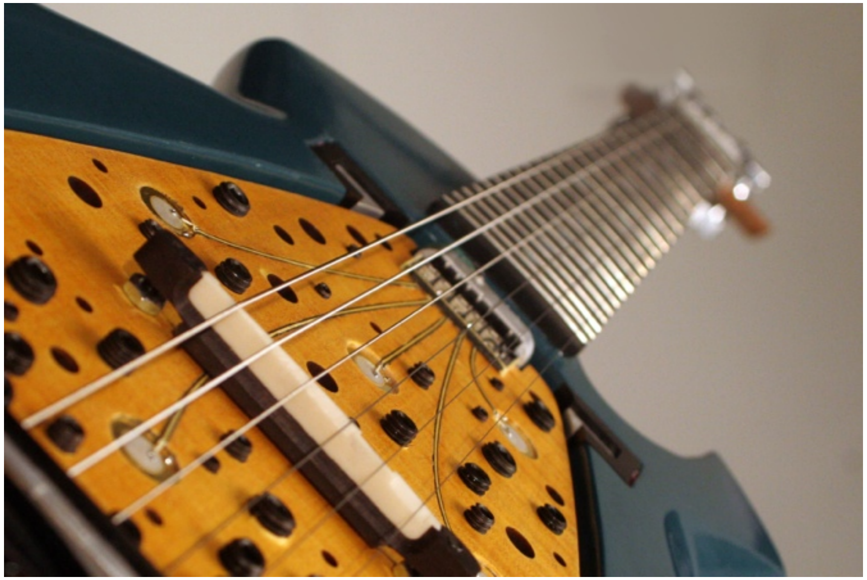
- 2nd prototype: resonators

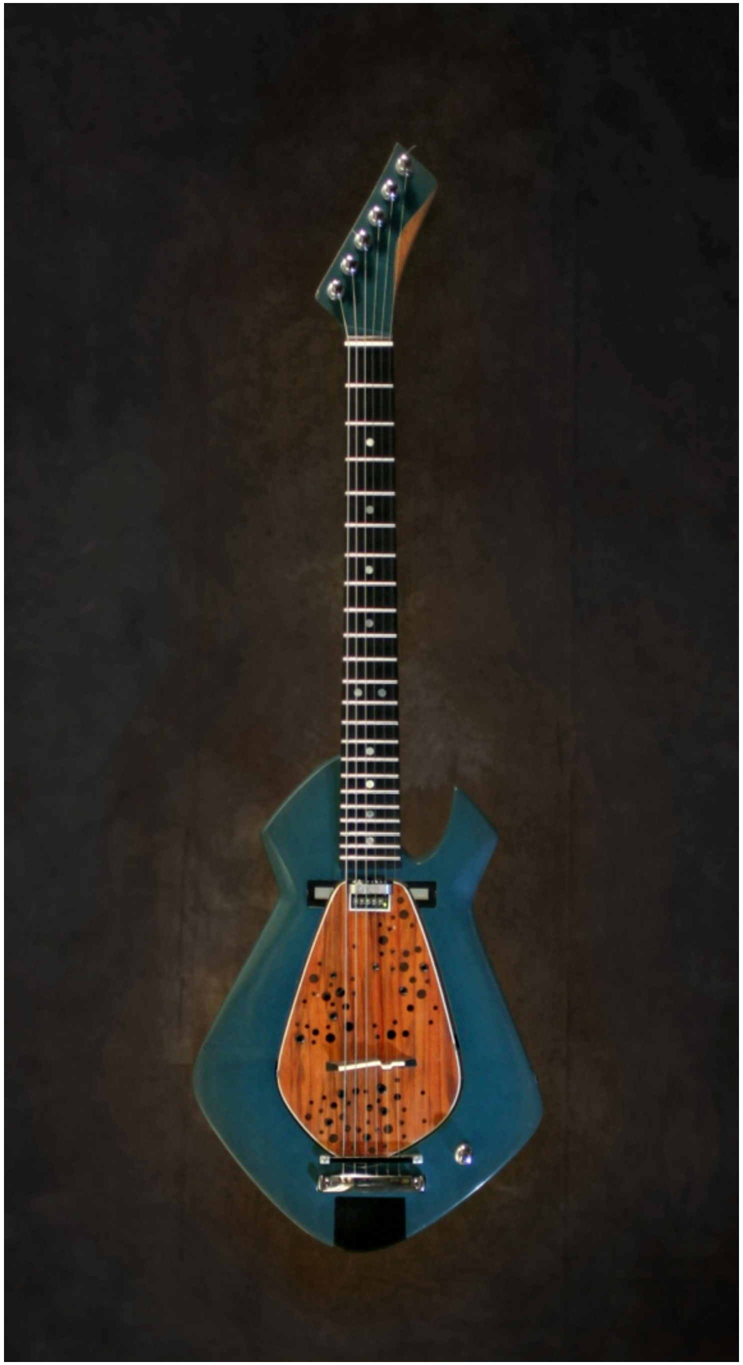




Review:
The Chameleon Guitar

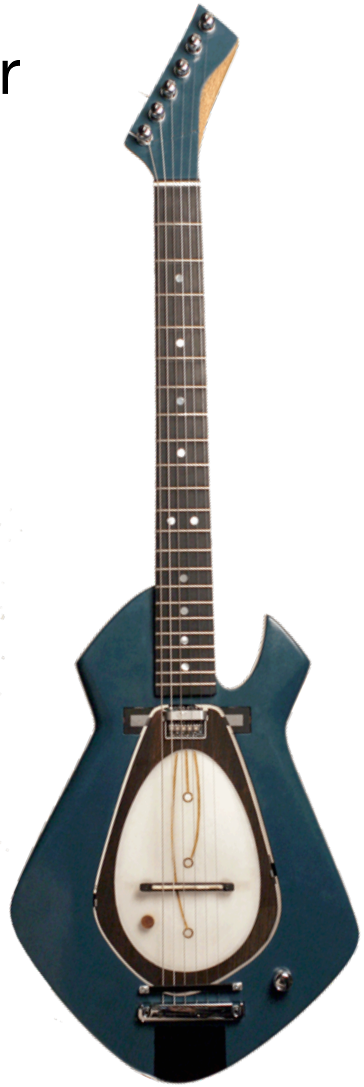
- 2nd prototype: resonators





Review:
The Chameleon Guitar

- 2nd prototype: resonators



Review:
The Chameleon Guitar

- 2nd prototype: resonators

1

2

3

4

5

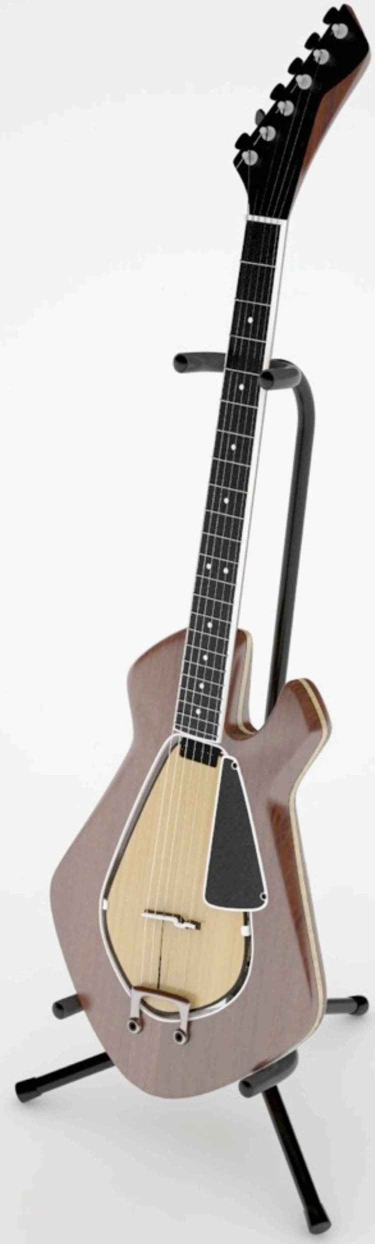
6

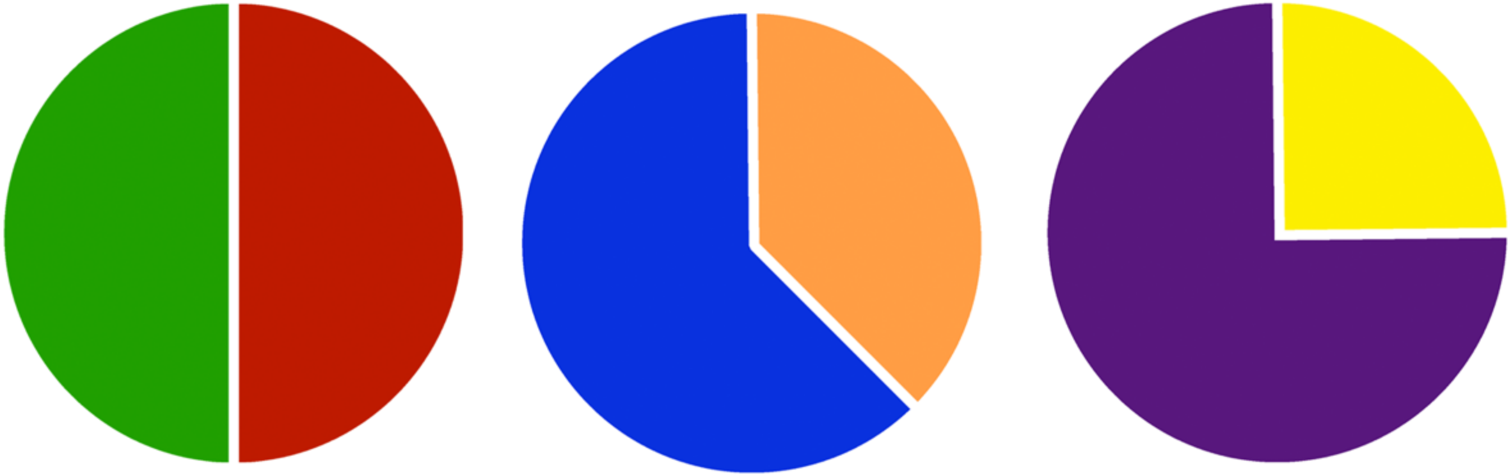
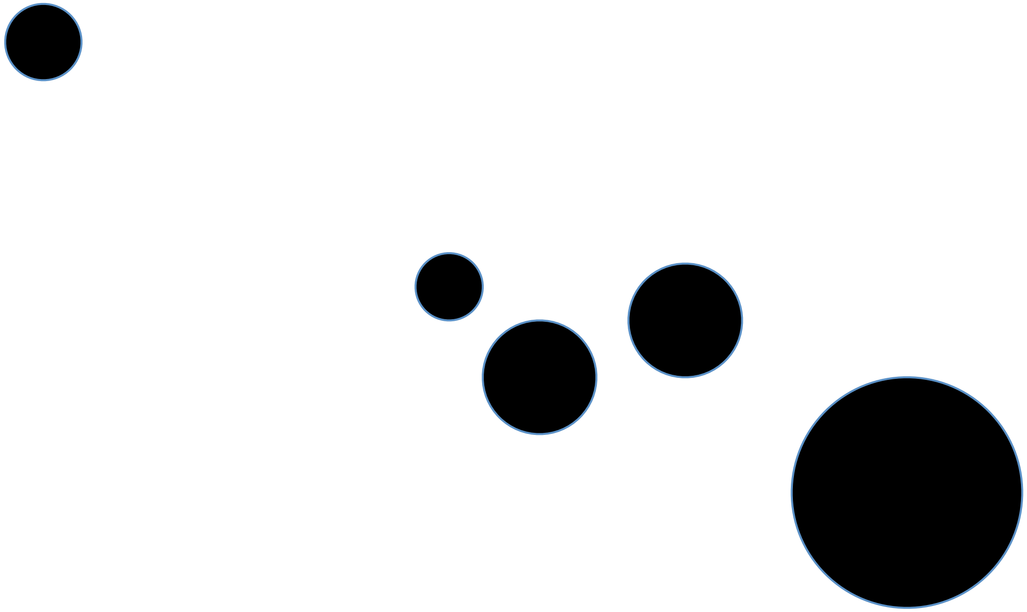
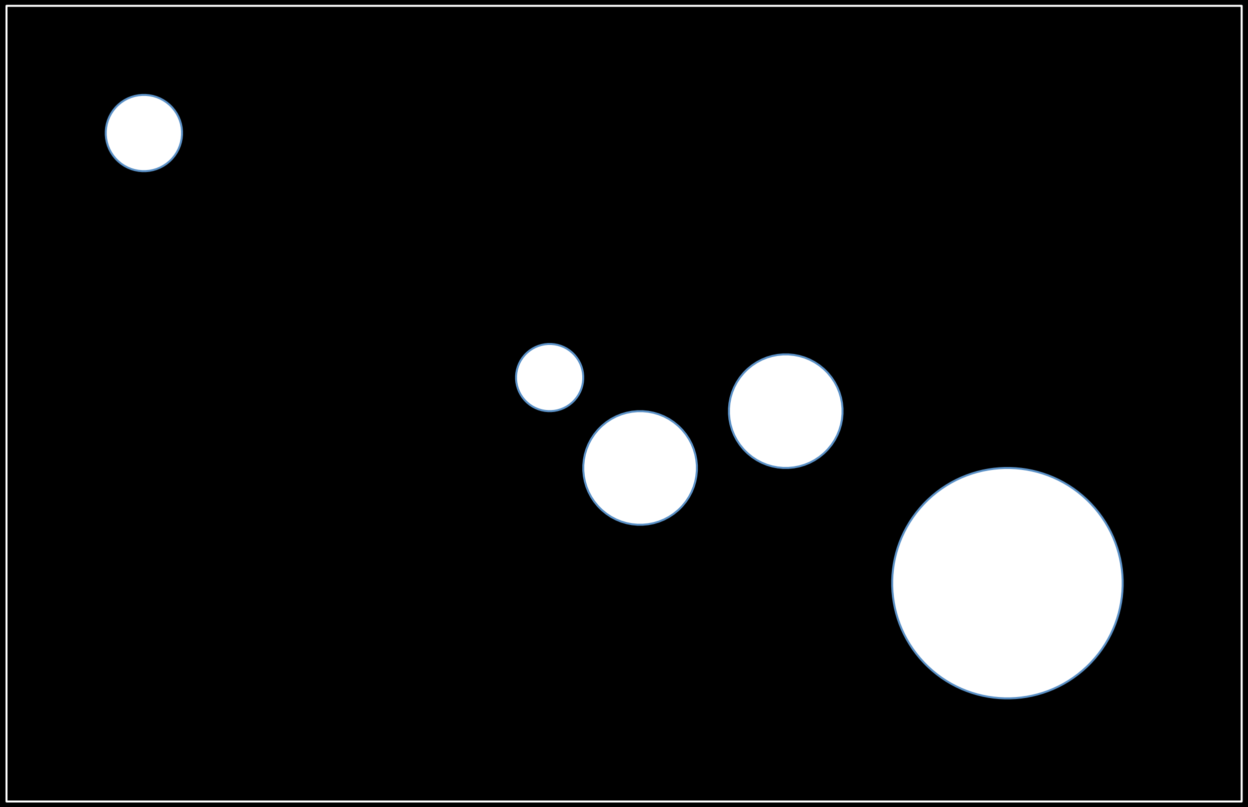
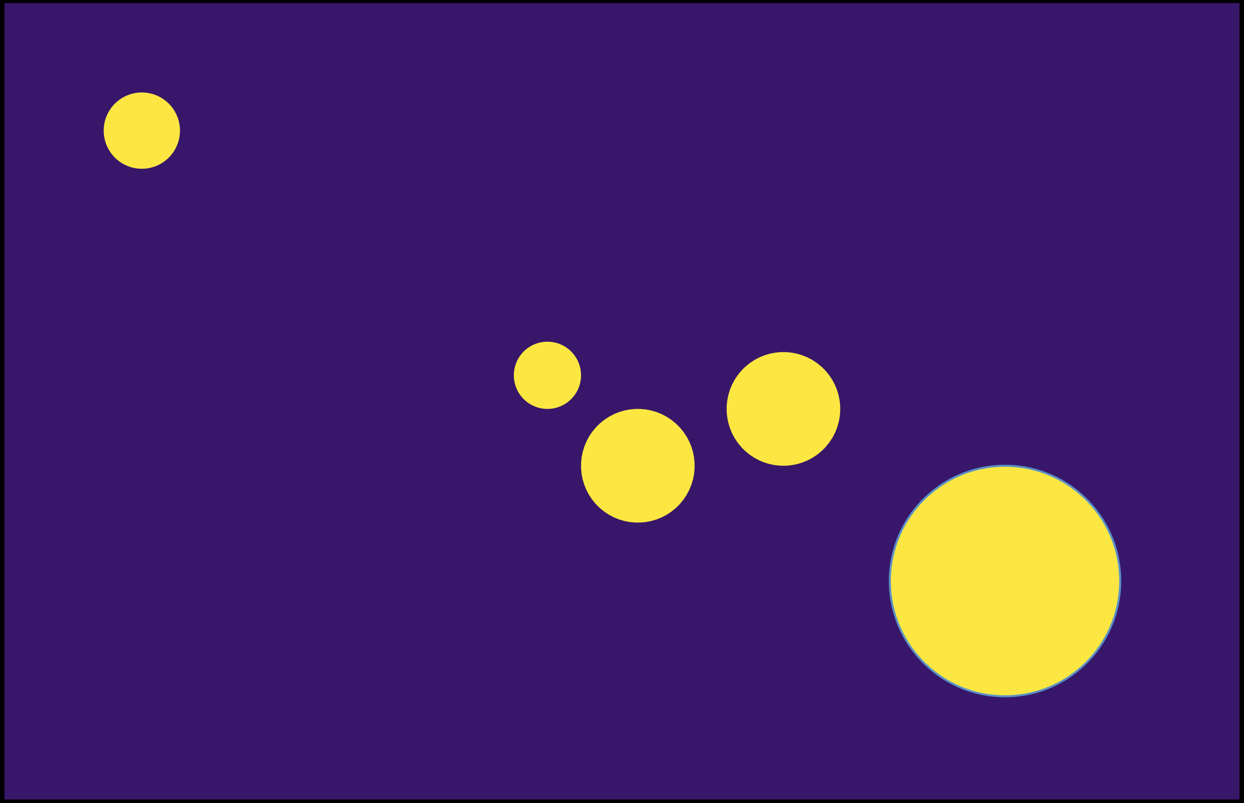
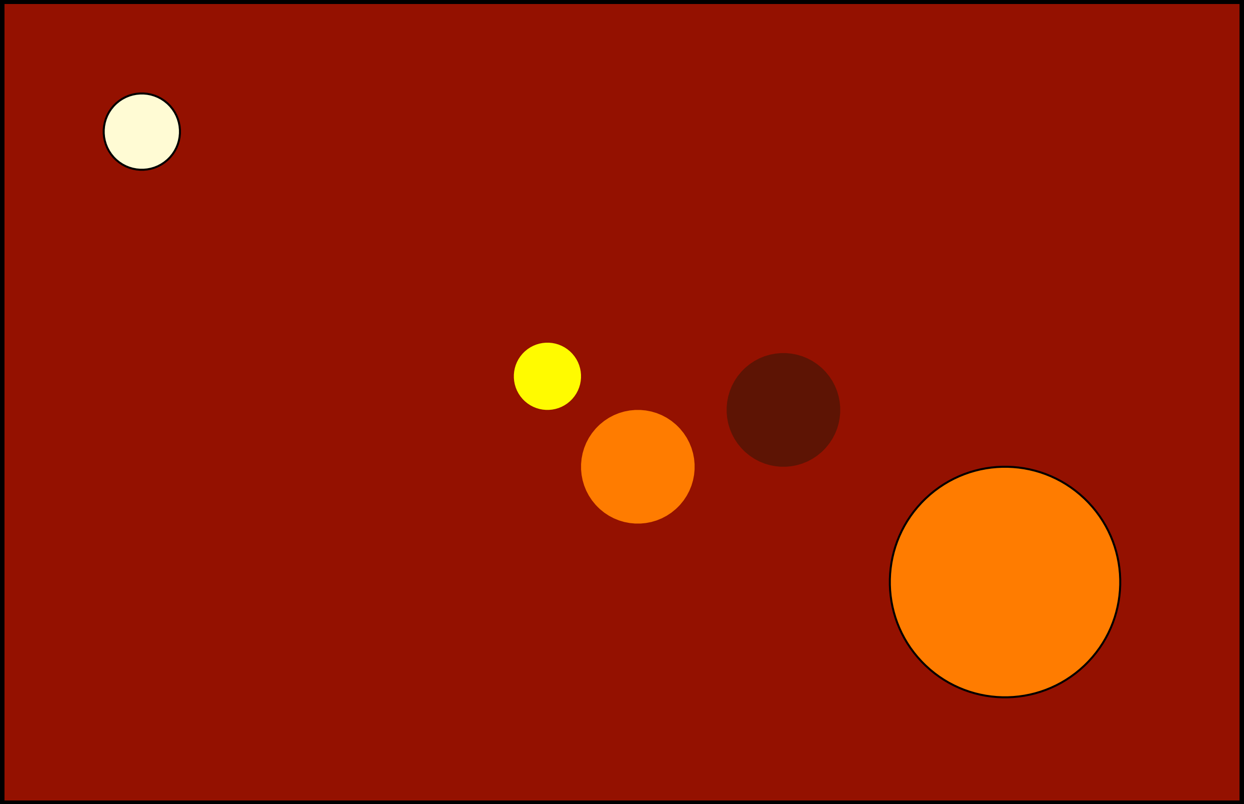
7

8

Review:
The Chameleon Guitar

- 3rd prototype



Styling: colors