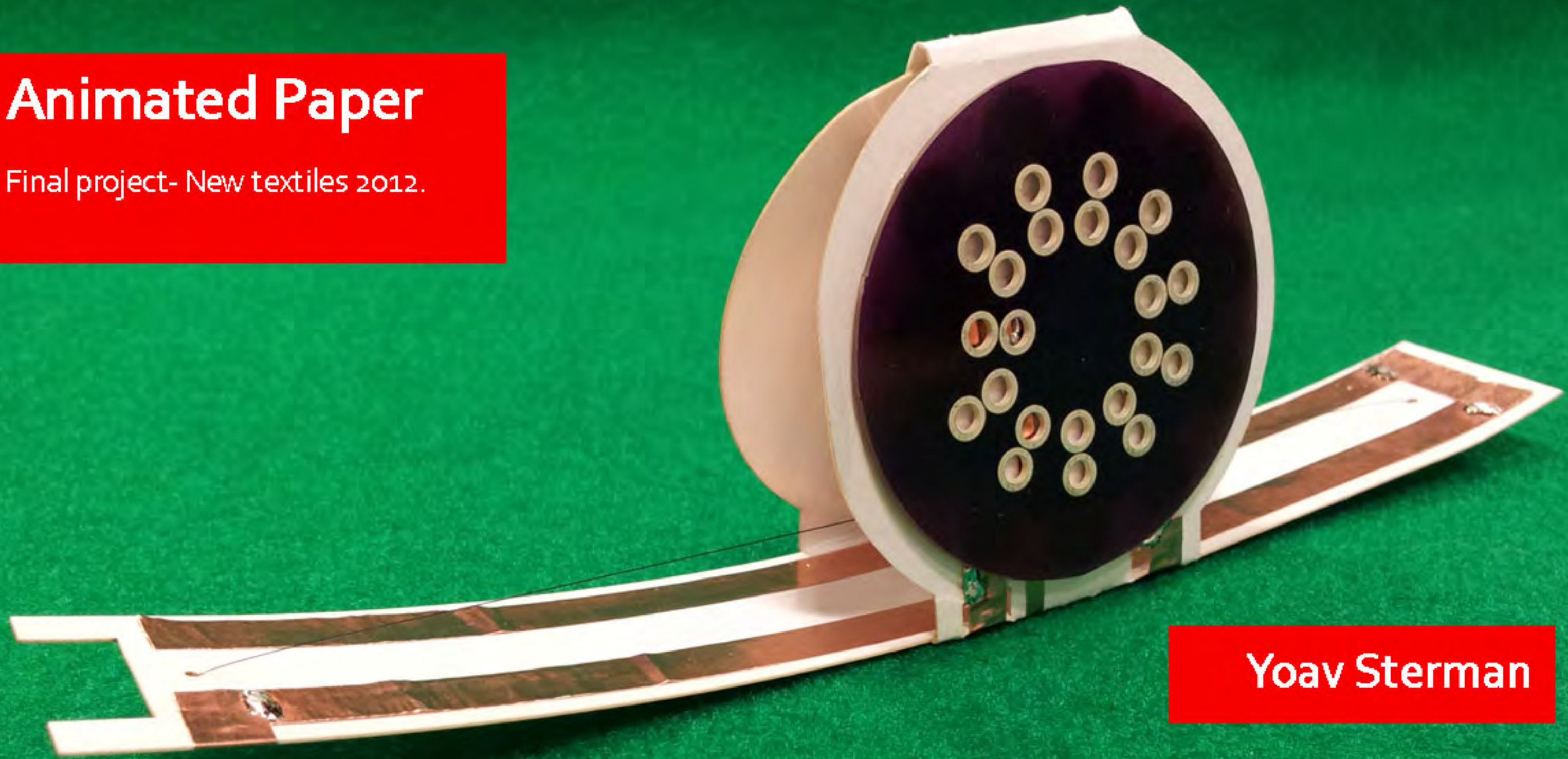


# Animated Paper

Final project- New textiles 2012.



Yoav Sterman

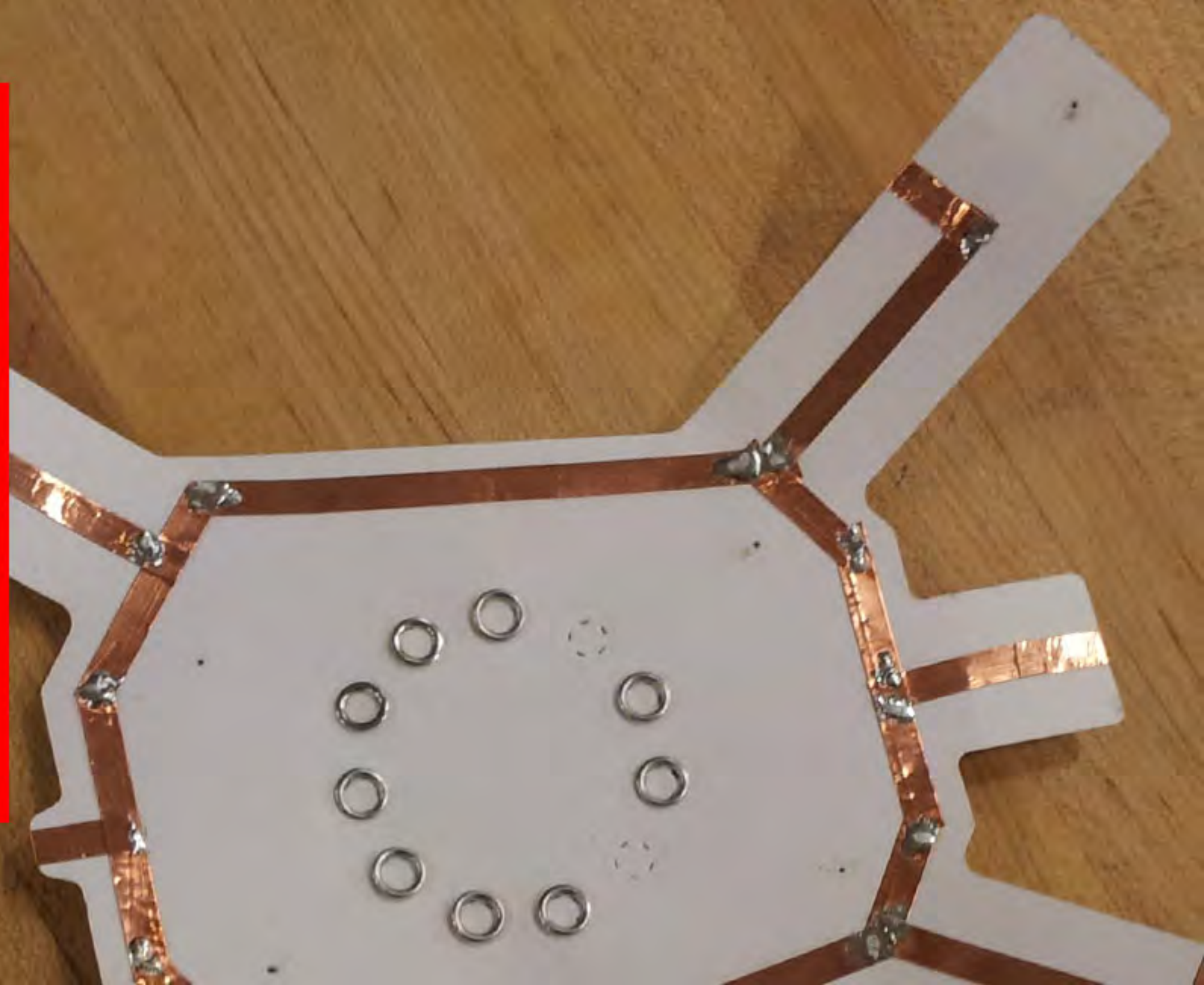
# Animated Paper

Final project- New textiles 2012.



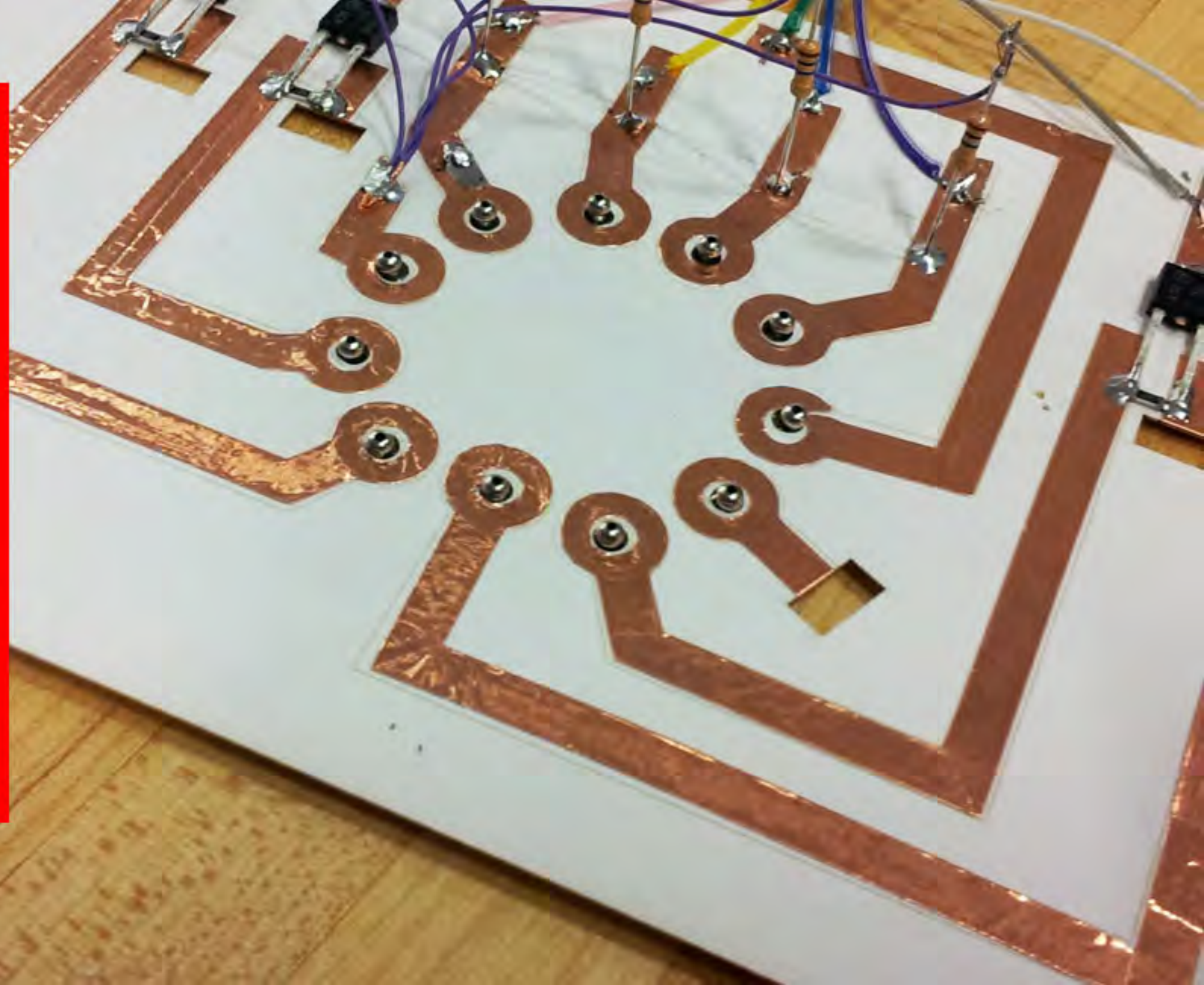
# The Concept

- Use shape memory alloy (Nitinol) and paper to create movement and animation of a simple sheet of paper.
- Taking a design and esthetic approach versus an engineering approach.



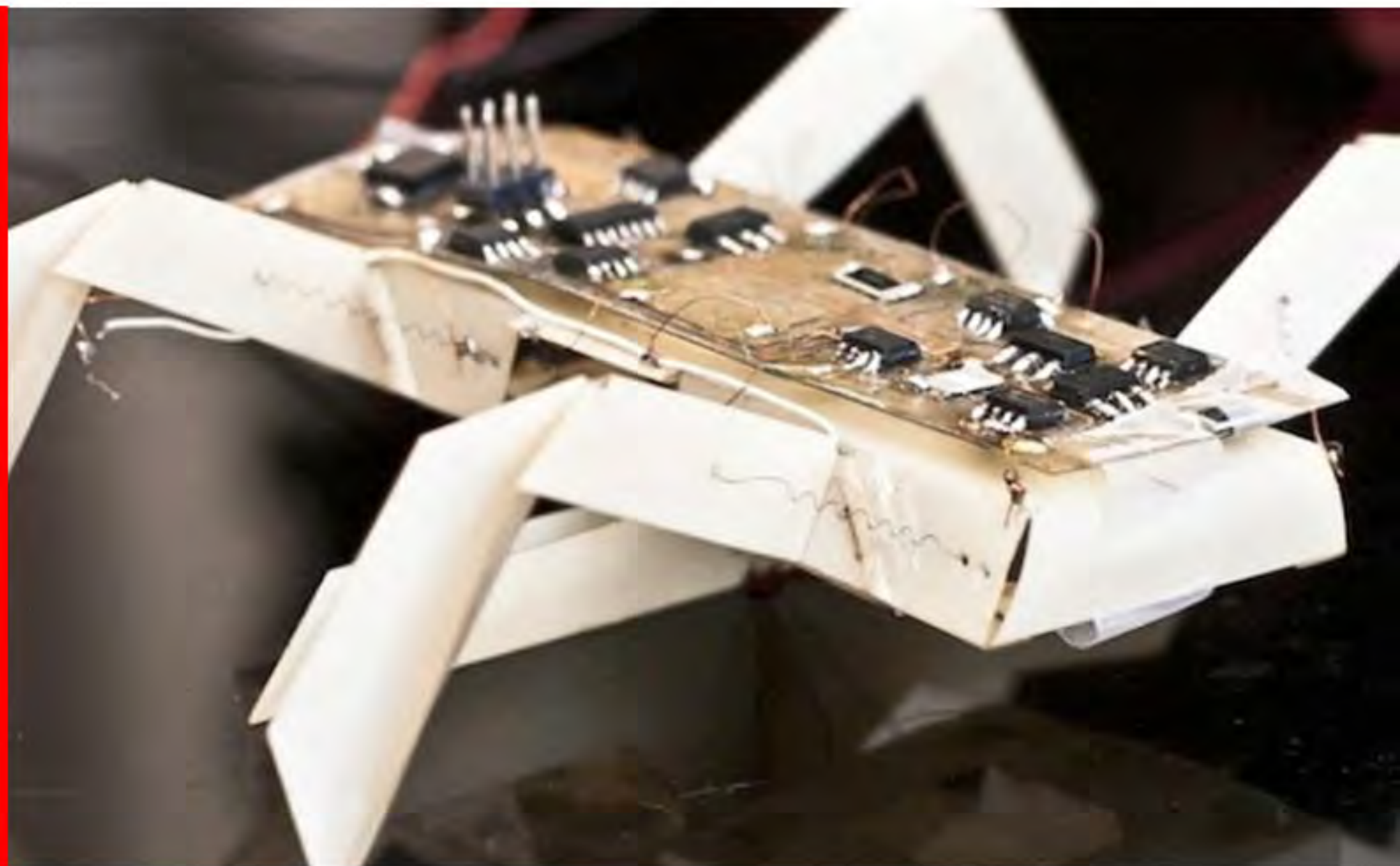
## Goals and challenges

- Create an interesting and fun user experience.
- Use the properties of the paper: the elasticity, Springiness, and the ability to fold.
- Using the electronic components as part of the story of the object, and use the circuit as a decorative element.
- Create movement and locomotion.



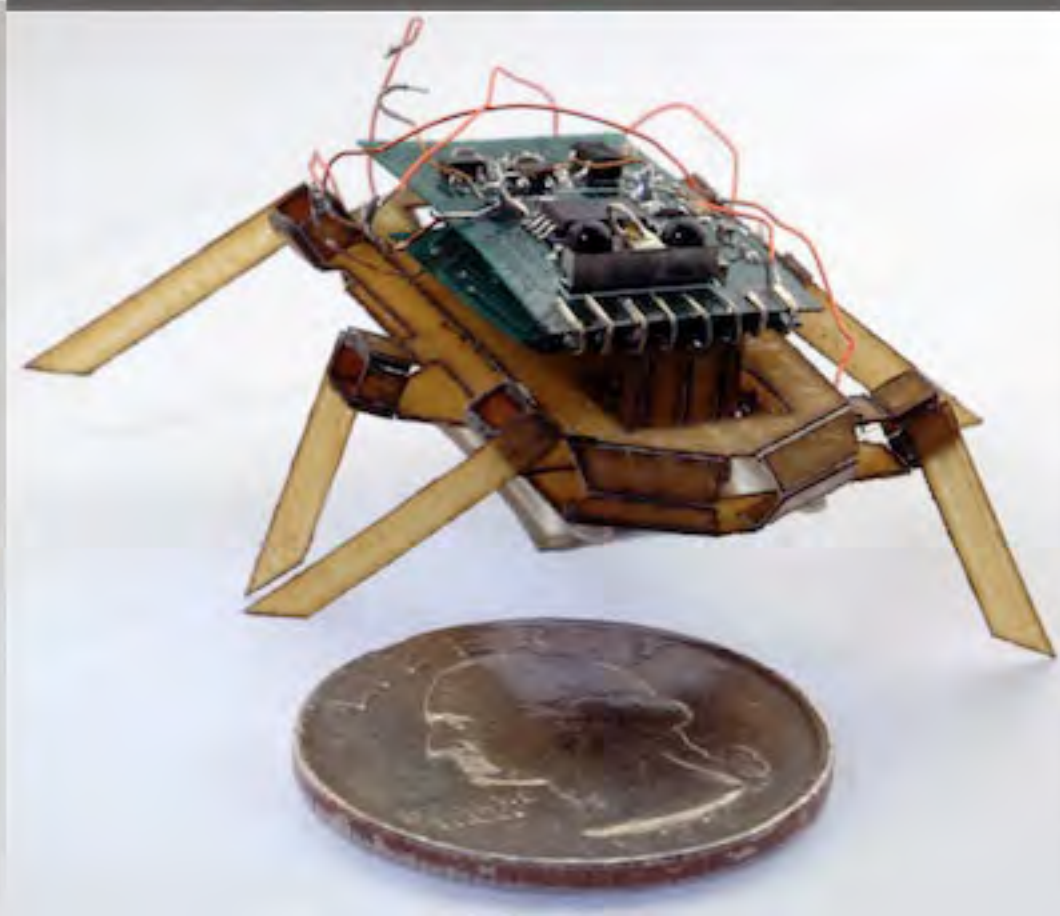
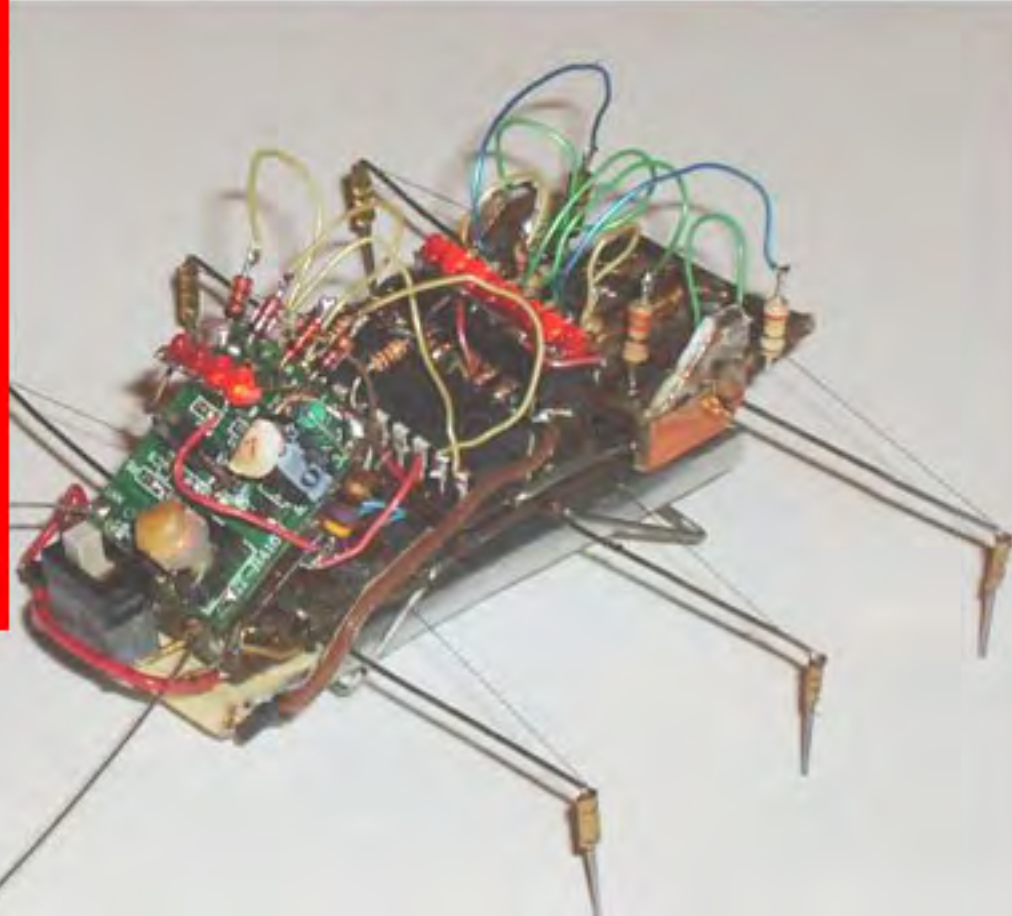
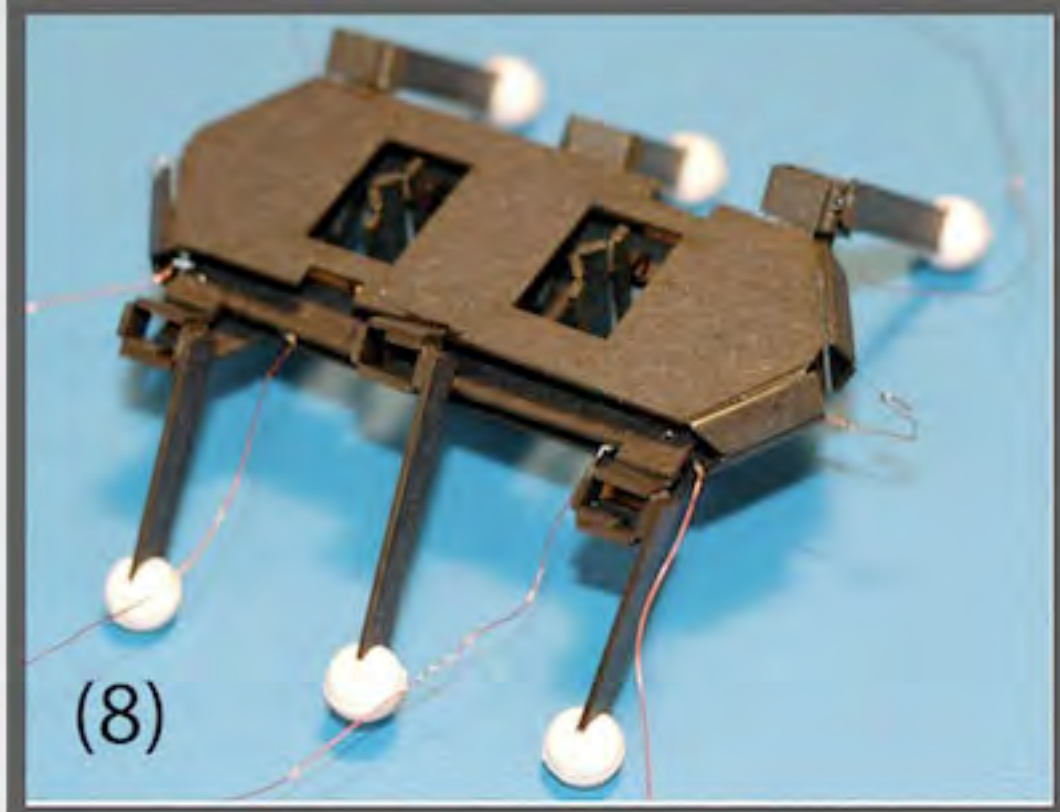
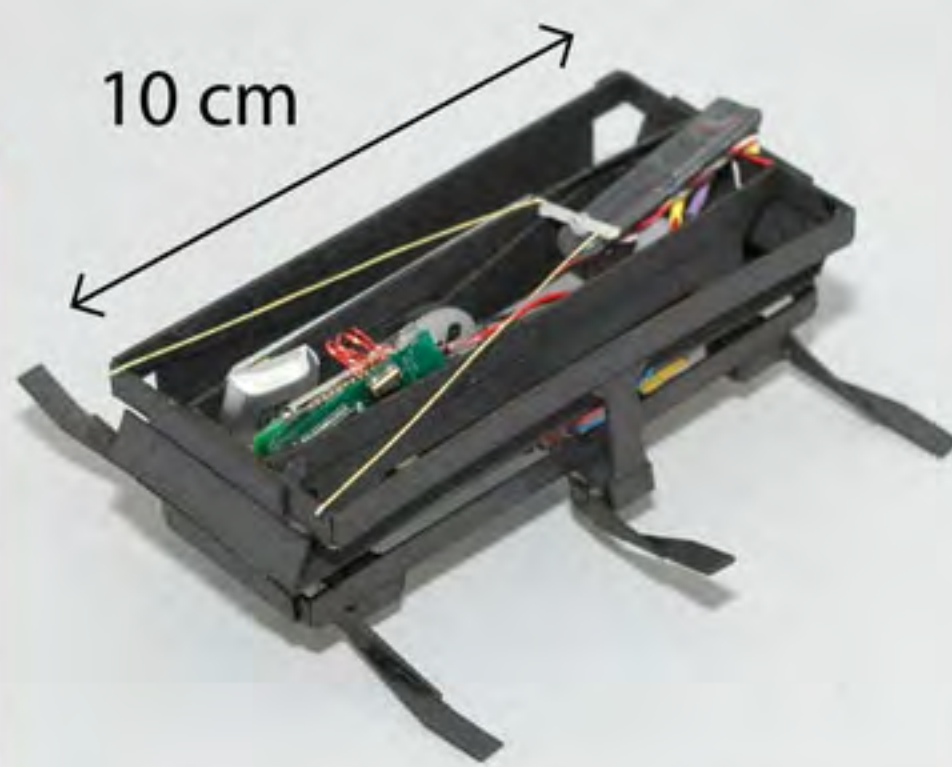
## Prior art

- Design and print your own robot project  
(CSAIL and the University of Pennsylvania)



# Prior art

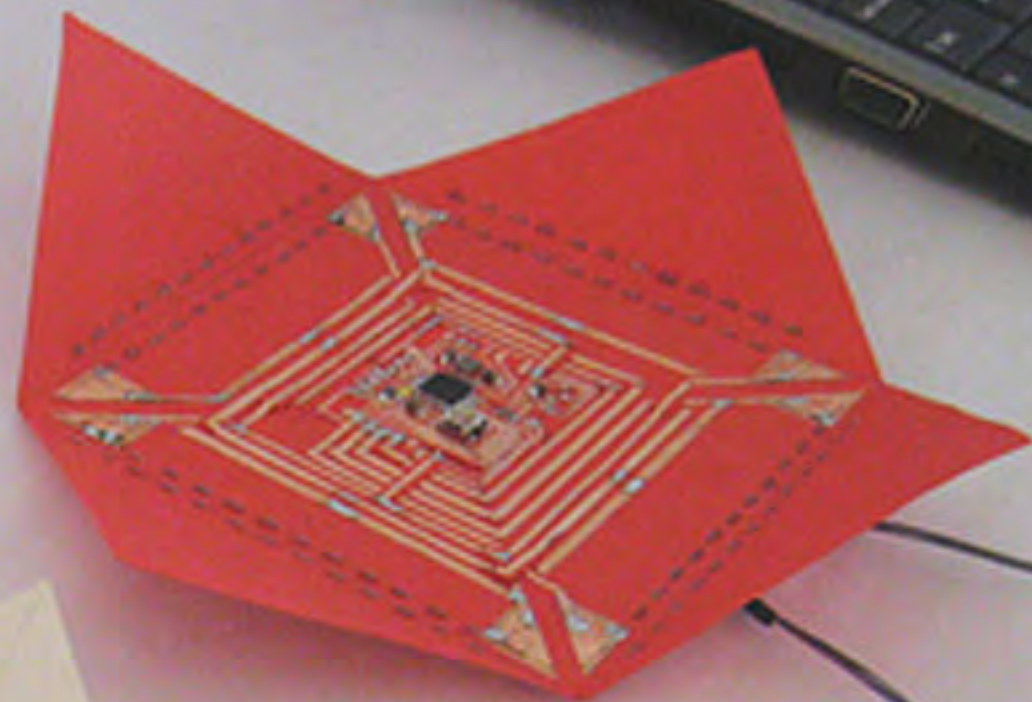
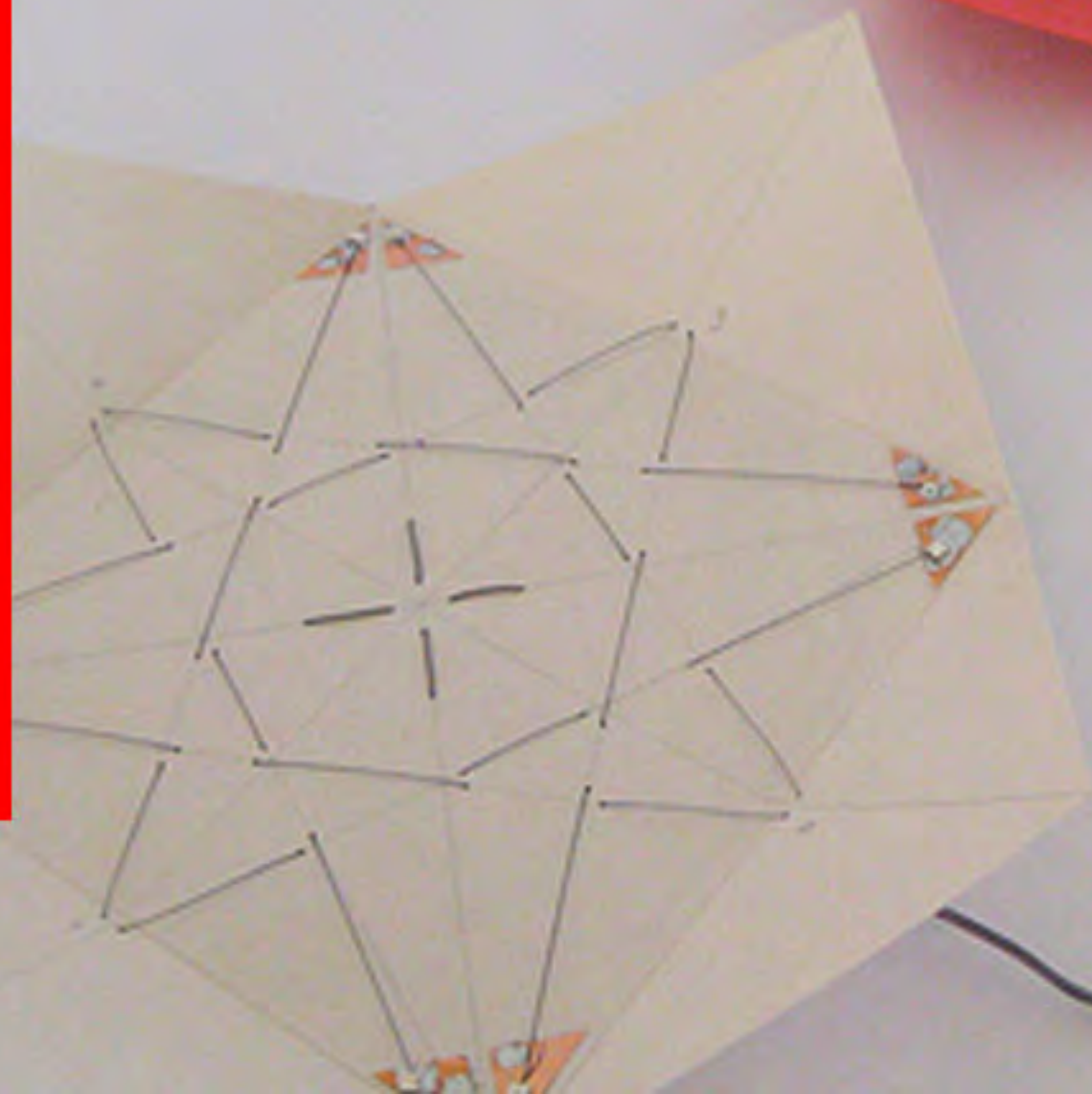
- Miniature, inset like robot



# Prior art

- High low tech group,  
Self-folding Origami Paper

Jie Qi



# Prior art

- High low tech group,  
Animated Vines

Jie Qi





# Caterpillar

- "organic" motion.
- decorative circuit.
- live - digital - animation.



# Snail

- Simple interaction that imitates the sudden movement of a snail when one of his feeler is touched.
- special technique to connect the new version of the Lilipad.



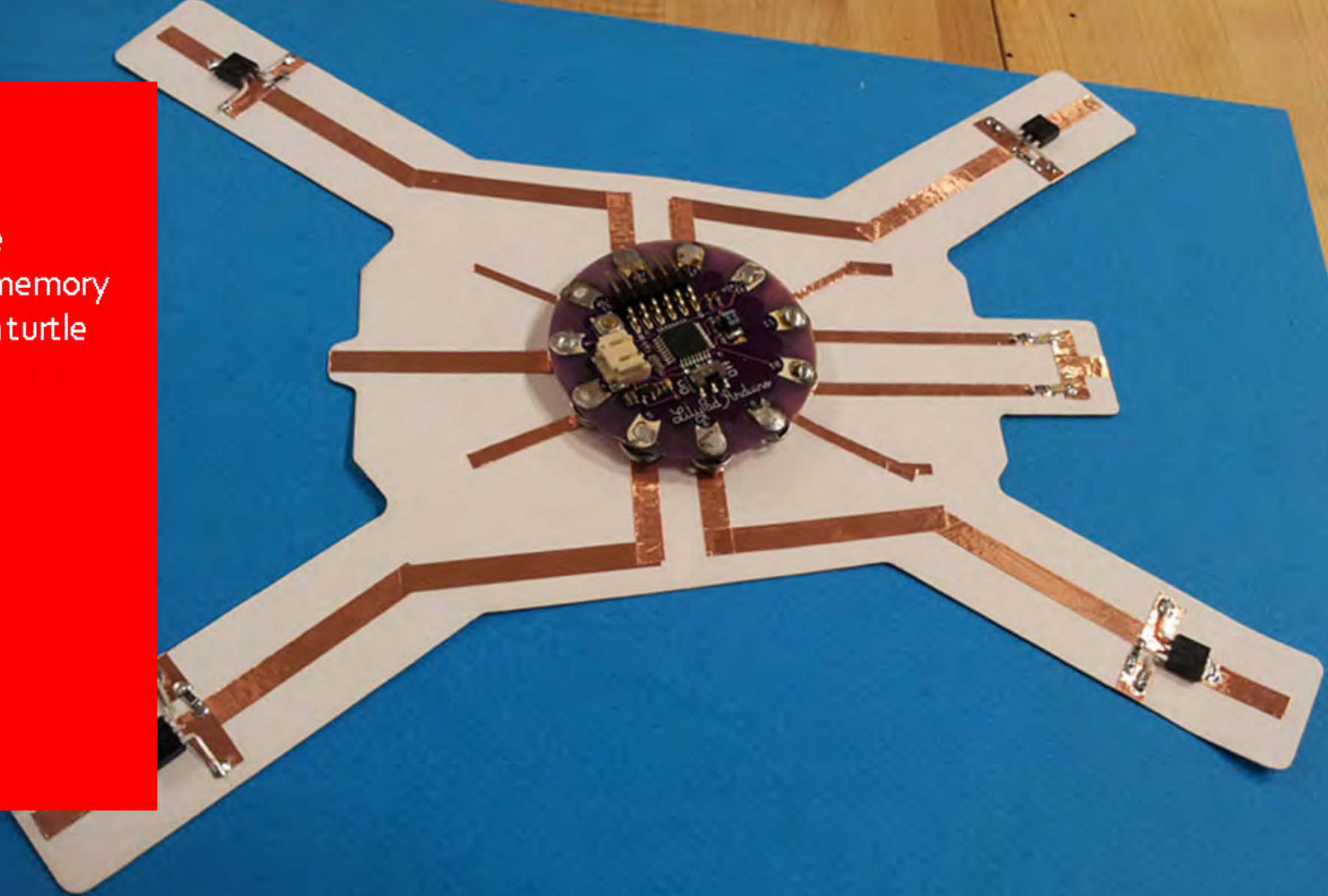
# Interactive sheet

- A piece of paper "come to live" when placing the hand on one of the corders of the paper.



# Turtle

- A fun design that leverage the slowness of the shape memory alloy to a suitable animal- a turtle



Turtle



# Turtle



Turtle



# Future work

- Improve the motion.
- More animals.
- More motion types and directions.
- Going to bigger scale (X5 or more).





Thank you

