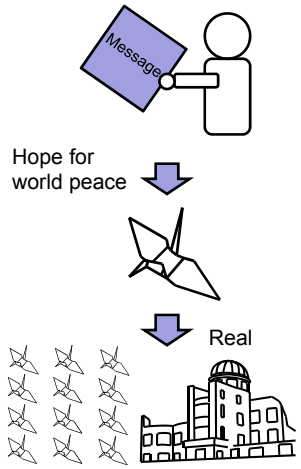
Daisuke Miyazaki, Saori Kagimoto, Masashi Baba, Naoki Asada,
"Creating digital model of origami crane through recognition of origami states from image sequence,"
ACM SIGGRAPH ASIA 2010 Posters,
pp. 19:1-19:1, 2010.12

http://www.cg.info.hiroshima-cu.ac.jp/~miyazaki/

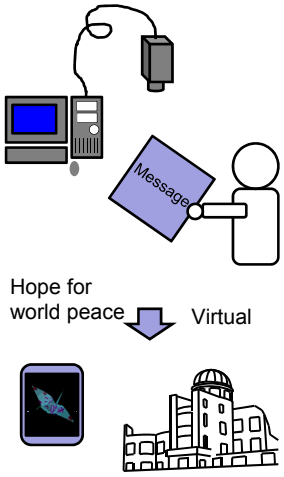
Creating Digital Model of Origami Crane through Recognition of Origami States from Image Sequence

Daisuke Miyazaki, Saori Kagimoto, Masashi Baba, Naoki Asada
Hiroshima City University

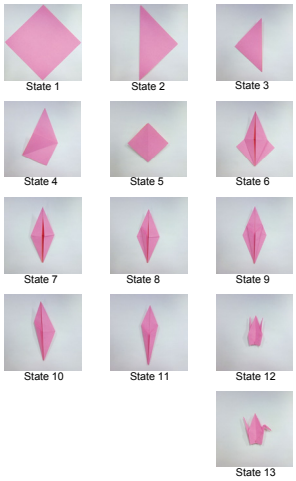
Background



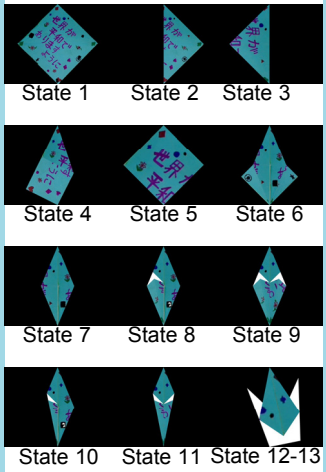
Our System



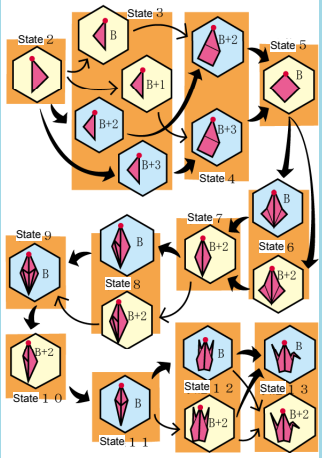
Origami States



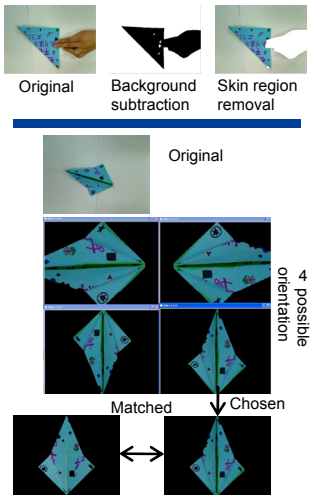
Origami States



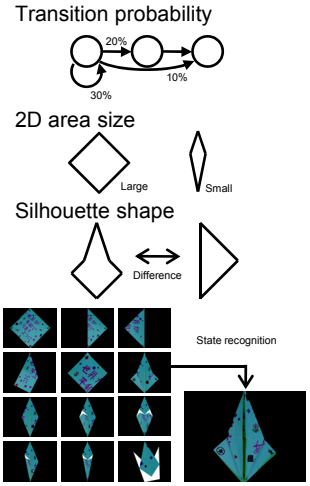
State Transition



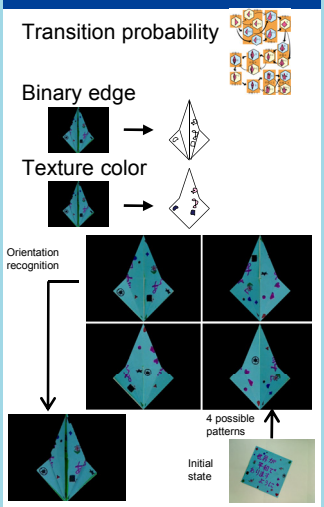
Preprocessing



State Recognition

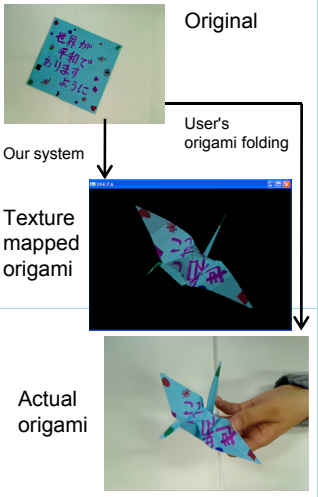


Orientation Recognition



Setup

Result



Discussion

Conclusion

Digitally capturing the origami crane folded by the users

- The user will put their hope for world peace on origami crane while folding it and while writing the message
- The user do not need to touch the computer during the folding process

[Less texture] Currently only detecting discretely at each state → Future work is to track each finger and origami tips and sides also during the state transition

[Uniqueness] Currently the unique origami can be made in photometric sense → Future work is to capture the geometrical shape of the folded origami to geometrically model the uniqueness of the exact origami the user made