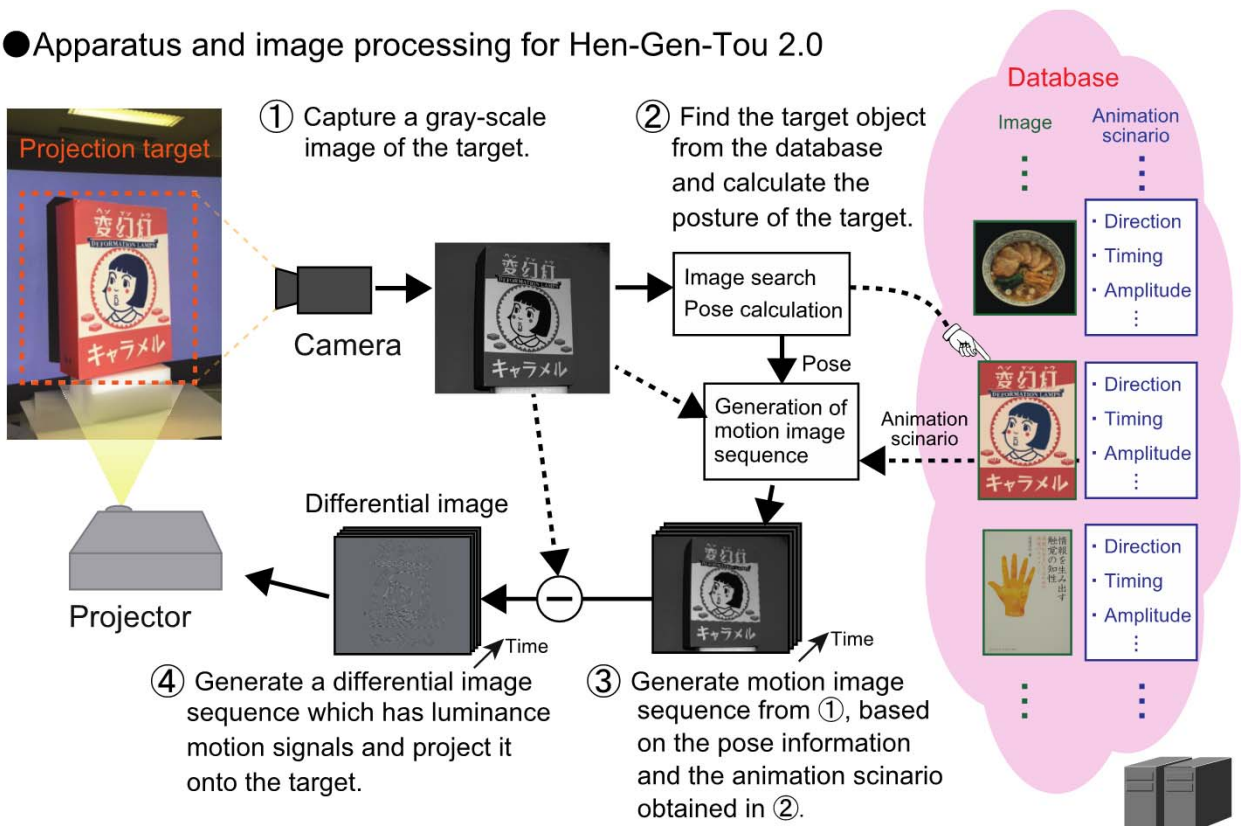


## Abstract

Hen-Gen-Tou is a novel type of projection mapping that can add a variety of animations to static objects. Unlike conventional projection mapping techniques, our method projects a dynamic gray-scale pattern only. The projection pattern combined with the target object image effectively stimulates visual motion mechanisms in our brain so as to produce realistic motion impressions. Recently, we dramatically increased the usability of Hen-gen-Tou by incorporating an image search algorithm into it. The new system automatically recognizes a target object and finds the corresponding (pre-designed) animation data from the database. It then generates a sequence of projection patterns based on the animation data, and transformed them so as to fit in with the posture and the scale of the projection target. Since users are no more troubled with projection image alignment, more and more people will be able to enjoy Hen-Gen-Tou at home, shops and everywhere.

## ●Apparatus and image processing for Hen-Gen-Tou 2.0



## ●Visual mechanism supporting Hen-Gen-Tou

In Hen-Gen-Tou display, only motion information is projected onto a static target object. Hence, the motion signal is more or less spatially incongruent with color information on the target surface. The brain separately analyzes those information and later integrates them. In the course of the integration, the brain resolves the incongruence. By taking advantage of the characteristics of the brain, Hen-Gen-Tou can robustly give dynamic impressions.

## 【Reference】

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