

Dice Pip Detection

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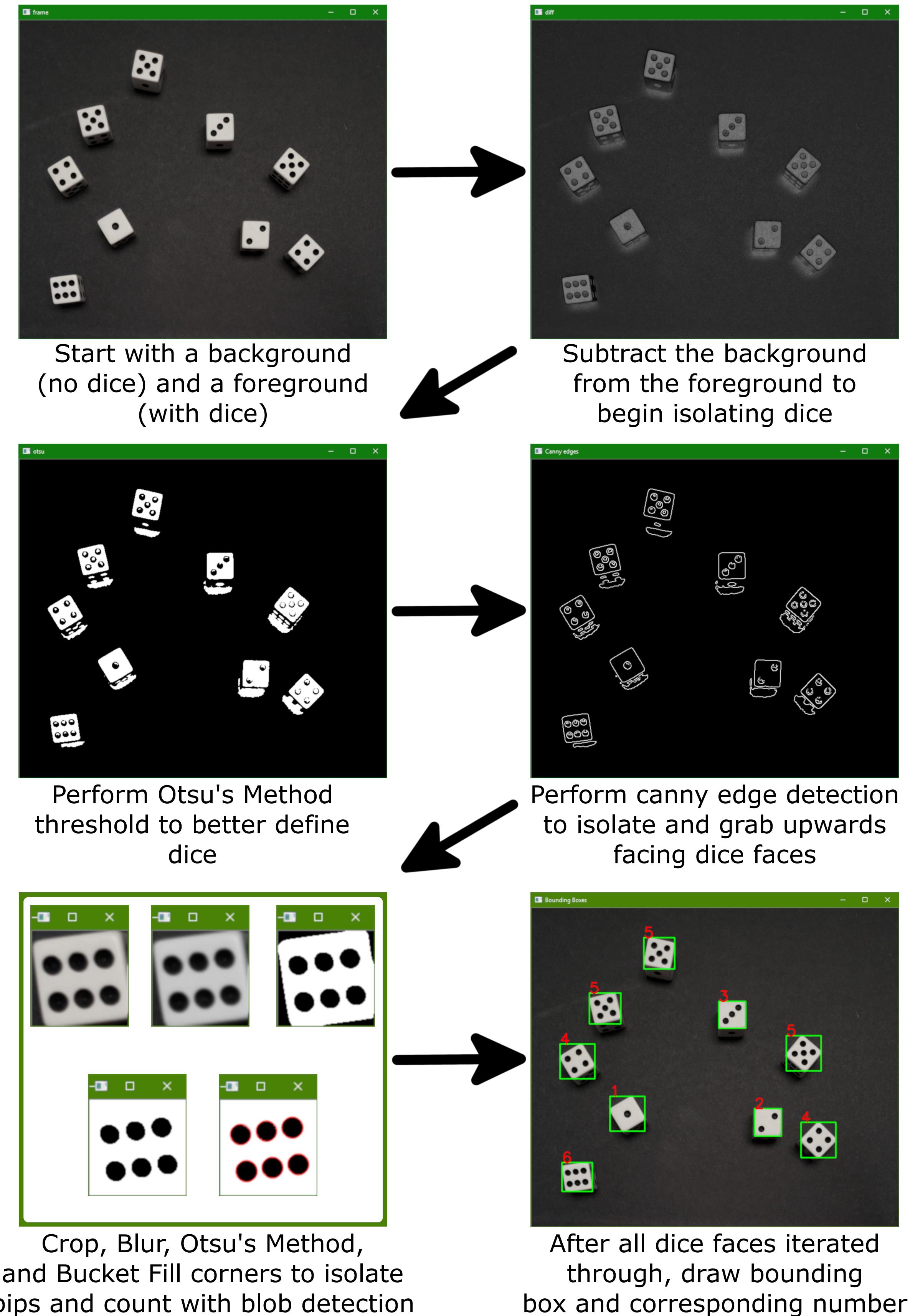
Introduction

Inspired primarily by table-top games, this project was a fun application of machine vision in attempts to enhance the overall experience of dice-based games. Some of the intended applications of this program are to be able to detect and count large numbers of dice, as well as to digitize the analog dice rolling such that it can be used in other applications. Starting from scratch, this program can detect dice at a 89.13% success rate, with future work being to further improve accuracy.

Project Goals

1. Create a program that can successfully take an input image/frame and output a digital value(s) corresponding to the value(s) of the pips found on the top of the dice.
2. Have the detection process run quick enough in order to be used on the most amount of devices.

The Process



Results

Conclusions and Future Work