CSE 145: Brilliant Pad Poo Vision Final Report

# Abstract

The Brilliant Pad is a self-cleaning dog potty that removes the hassle of cleaning up after pets through its automatic pad dispensing and sealing system. Although convenient, the Brilliant pad still has some pet peeves: it currently advances the pad at a user-defined time interval regardless of the amount of waste on the pad. This leads to a waste of clean pads, prolonged odor, and higher maintenance. We aim to improve the existing product with a vision system that can tell the pad to advance when a user-defined waste threshold is reached. Our vision system makes use of a Raspberry Pi, Pi Camera, and OpenCV to determine the level of waste detected. To make the system more robust, we also explore methods to more reliably detect dog presence. These additions to the Brilliant Pad will help assess the feasibility of a camera system to improve the user experience and serve as a basis for potential commercial adoption.

# Introduction

# Technical Material

# Milestones

# Conclusion

# References