Jake Isenhart
Pauline Varley
Weston Braun

Laser Pinball

Abstract:

   The Laser Pinball game will have three main components: a vision processing module, a game and physics engine, and a laser projector display. The vision processing module will be used to recognize a small number of movable colored blocks on a white background, which will then be interpreted as components of a pinball game board (e.g., a bumper, a flipper, a warp gate). The physics engine will be the nuts and bolts of the game, governing collisions between the ball and the objects, as well as basic things like the ball's acceleration due to gravity. The game will be projected via an RGB laser directed by a pair of galvanometers. Additionally, we intend to have the paddles controlled by a pair of gloves with embedded accelerometers. If we have time, we will load custom sound effects into EEPROMs.