

For the robot to detect obstacles and avoid hitting them, we used the huskylens camera to detect and distinguish the red traffic lights and the green traffic lights, we trained the camera by using the "colour training" section. Then depending on the obstacle detected the robot will do the action corresponding to the color of the traffic light. If the traffic light is red the robot will go to right untill it doesn't see the traffic sign. Same for the green ones, the robot will go to the left untill it doesn't see it.

We 3d-printed the obstacles (7 green, 7 red) but the colors weren't exactly matching the original colors

of the obstacles so to assure that no confusion of the color detection will occur we also used Microsoft Word, and we inserted shapes that matched the colors, the shapes and dimensions. After that we printed, cut, glued them to the ones we 3d printed.