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| Task. No.: | 1 | Points: | 5 | Stop Sign Detection |

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| Objectives:  1. Using Simulink. 2. Working with RGB camera. 3. Working with depth camera. 4. Performing simple image processing tasks. |

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| Description: This project aims to capture images from the Intel RealSense’s RGB and Depth cameras. After thresholding the RGB image for a red stop sign, it extracts the sign’s coordinates and the distance to the sign. |

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| Step | Action |
| 1 | Use Simulink implementation of RGBD Imaging.  Capture RGB and Depth Images points to Find blob in RGB, and track depth at that location, when new images are available; which points to Distance to blob (m) |
| 2 | Adjust the thresholding parameters inside the *findStopSignLocation* module. |
| 3 | Tune the saturation and value parameters until the binary image only displays the stop sign. |
| 4 | The output should look the following images, which shows the raw RGB output, a binary output after thresholding, and the depth output.  Optical image of a small stop sign. Mostly black image with a white and black stop sign (writing is black). Black and white version of first image without any detail. |

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