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# Search and Sample Return



# **Meets Specifications**

You have qualified all minimum requirements. COngrats!! All the best for future projects.

#### Writeup

The writeup / README should include a statement and supporting figures / images that explain how each rubric item was addressed, and specifically where in the code each step was handled.

## Notebook Analysis

Describe in your writeup (and identify where in your code) how you modified or added functions to add obstacle and rock sample identification.

Describe in your writeup how you modified the **process\_image()** to demonstrate your analysis and how you created a worldmap. Include your video output with your submission.

### **Autonomous Navigation and Mapping**

perception\_step() and decision\_step() functions have been filled in and their functionality
explained in the writeup.

By running **drive\_rover.py** and launching the simulator in autonomous mode, your rover does a reasonably good job at mapping the environment.

The rover must map at least 40% of the environment with 60% fidelity (accuracy) against the ground truth. You must also find (map) the location of at least one rock sample. They don't need to pick any rocks up, just have them appear in the map (should happen automatically if their map pixels in Rover.worldmap[:,:,1] overlap with sample locations.)

Note: running the simulator with different choices of resolution and graphics quality may produce different results, particularly on different machines! Make a note of your simulator settings (resolution and graphics quality set on launch) and frames per second (FPS output to terminal by <a href="mailto:drive\_rover.py">drive\_rover.py</a>) in your writeup when you submit the project so your reviewer can reproduce your results.



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