To get the map made with octomap_server using the visual odometry outputs, the octomap_mapping.launch file should look like:

```
<!--
  Example launch file for octomap_server mapping:
  Listens to incoming PointCloud2 data and incrementally builds an octomap.
  The data is sent out in different representations.

  Copy this file into your workspace and adjust as needed, see
  www.ros.org/wiki/octomap_server for details
-->
<launch>
        <node pkg="octomap_server" type="octomap_server_node" name="octomap_server">
                <param name="resolution" value="0.05" />

                <!-- fixed map frame (set to 'map' if SLAM or localization running!) -->
                <param name="frame_id" type="string" value="/odom" />

                <!-- maximum range to integrate (speedup!) -->
                <param name="sensor_model/max_range" value="6.0" />

                <!-- data source to integrate (PointCloud2) -->

                <!--<remap from="cloud_in" to="/camera/depth/points" /> -->
                <remap from="cloud_in" to="/rgbd/cloud"/>

        </node>
</launch>
```

To run the visual odometry stuff, run

roslaunch ccny_openni_launch openni.launch

then, run **roslaunch ccny_rgbd visual_odometry.launch**

then, you're going to want to build the map from that. To build the map, use octomap_server and run

roslaunch octomap_server octomap_mapping.launch

In RVIZ,

make sure the fixed frame is set to /odom

You want to see a few things:

- RGBD Cloud
  - The point cloud gotten from the CCNY stuff, shows a color image of the room or thing being mapped
  - the topic for this is: /rgbd/cloud
- MarkerArray
  - The Octomap that is being constructed with octomap_server
  - The marker topic is /occupied_cells_vis_array