

# Vision

## iSLAM (indoor SLAM)

Computer vision is everywhere today, and this is far from an overestimation. There are a lot of apps using this technology in all industries: from medical treatment to traffic monitoring. Such products make our lives much easier, which is why they are so popular.

Back in 1956, Robert Heinlein described in his books unimaginable 'cleaning robots', but now these miracle workers have become ordinary. This kind of robot creates a plan of the room and uses it to choose the appropriate cleaning plan. But what is the magic behind it? The answer is SLAM. SLAM is a method of building a plan of the area around the object by processing video captured by a camera located at the front of the object. There are two variations of SLAM: INDOOR for creating the most accurate plan of a room, which is what we are looking for, and OUTDOOR for creating maps of entire streets, regions, and even cities.

We will process video taken by a robot vacuum cleaner using mathematical algorithms to detect and track objects.

The result of the working software is the files with generated 2D map and identified objects' data. This concept will be convenient for the Integration with any production software.

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