# KBSW180136 Win32 - Navigate to Target PointStandard Mode and Virtual Track Mode

This document introduces the demo project of "move_to_spot", including how to move in standard mode and virtual track mode.

Content



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## IDE Preparation

- ### Software
  - Visual Studio 2010  SP1
  - Slamware Windows SDK:Slamware Windows SDK
  - RoboStudio(for map display):Robostudio installer
  - Sample Code:

> Higher version of Visual Studio will cause errors. sometime you will need to upgrade SP1 package to make your VS compatable with .Net Framework.

- ### Hardware

Either one of following

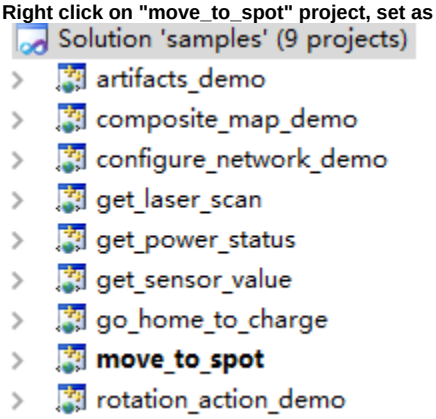
- Slamware SDP mini
- Slamware SDP
- Slamware Kit
- Zeus/Apollo robot base

## Download

Win32-Demo

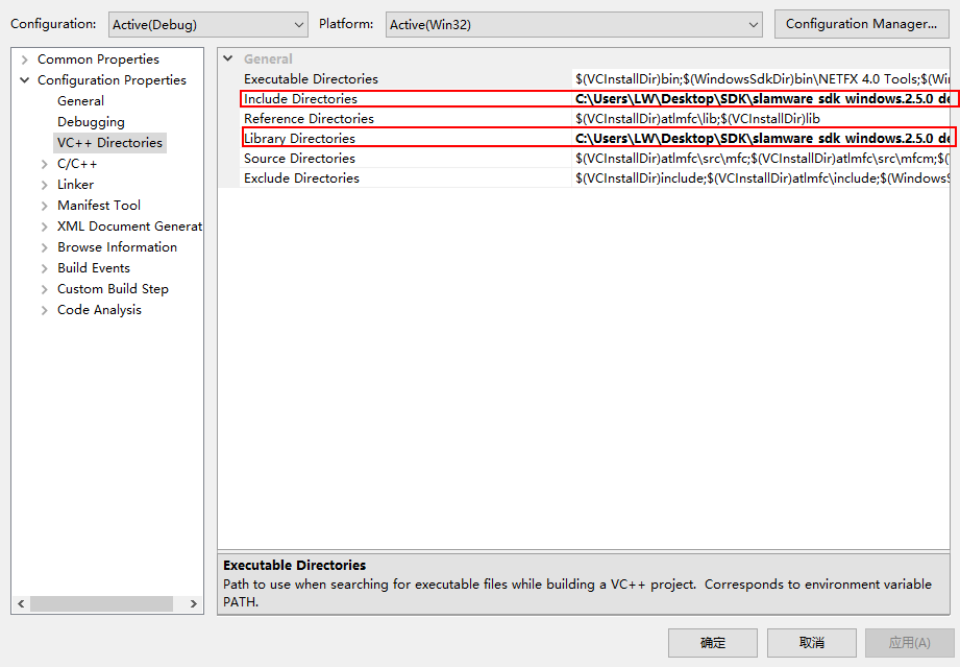
## Compiling

1. **Right click on "move_to_spot" project, set as StartUp project.**

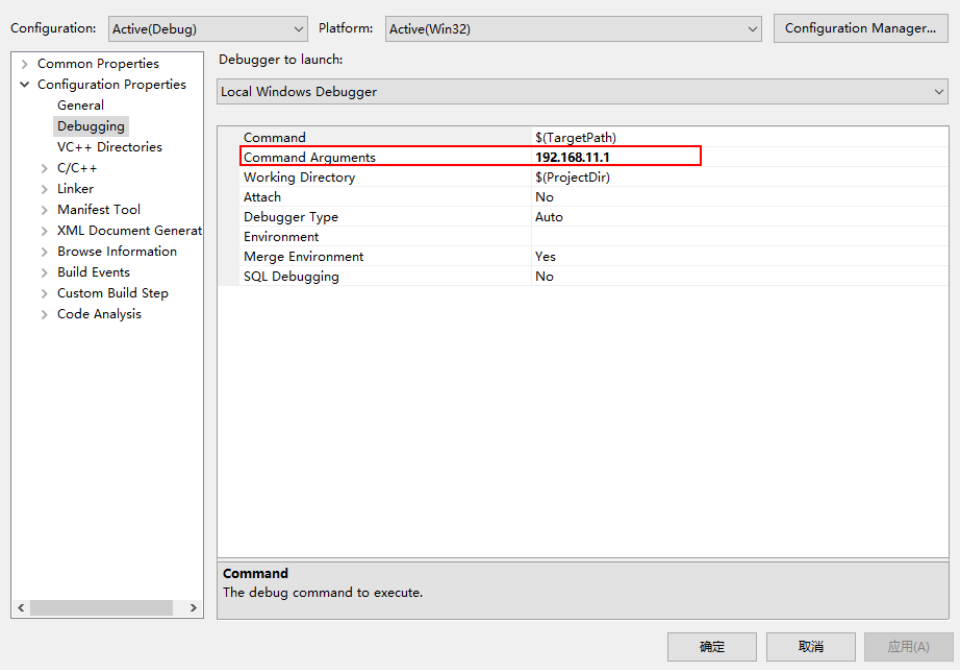



2. **Right click on "move_to_spot",then " Properties"configure "include" and "lib" directories to the corresponding folder path of Slamware SDK.**

> It's not necessary to copy files to the project directory, user will only need to configure the path of SDK.




3. **Right click on "move_to_spot"set "Command Arguments" as follows:**
   Syntax Descriptionmove_to_spot <IP address>




4. **Click " F5" to execute.**
5. **Robot motion and map could be seen on Robostudio.**
   **Your browser does not support the HTML5 video element**

# Code

- Robot moves firstly to point(2, 0) in **standard mode**, and then back to point (0,0) in **virtual track mode**, if any obstacle is detected, it will be automatically avoided with the standard mode or it will stops on virtual tracks on virtual track mode.

```
	SlamwareCorePlatform sdp = SlamwareCorePlatform::connect(argv[1], 1445);
		std::cout <<"SDK Version: " << sdp.getSDKVersion() << std::endl;
		std::cout <<"SDP Version: " << sdp.getSDPVersion() << std::endl;
		rpos::actions::MoveAction action = sdp.getCurrentAction();
		if (action)
			action.cancel();
		//move to location (2, 0), not on virtual track
		rpos::features::motion_planner::MoveOptions options;
		options.flag = MoveOptionFlag(MoveOptionFlagMilestone | MoveOptionFlagPrecise);
		action = sdp.moveTo(rpos::core::Location(2, 0), options);
		action.waitUntilDone();
		if (action.getStatus() == rpos::core::ActionStatusError)
			std::cout << "Action Failed: " << action.getReason() << std::endl;
		//draw a virtual track from (0, 0) to (2, 0), then move to (0, 0) via virtual track
		rpos::core::Line line(rpos::core::Point(0,0),rpos::core::Point(2,0));
		sdp.addLine(ArtifactUsageVirtualTrack, line);
		options.flag = MoveOptionFlag(MoveOptionFlagKeyPoints | MoveOptionFlagPrecise);
		action = sdp.moveTo(rpos::core::Location(0, 0), options);
		action.waitUntilDone();
		if (action.getStatus() == rpos::core::ActionStatusError)
			std::cout << "Action Failed: " << action.getReason() << std::endl;
```