

SLAM Workshop on Windows 10 machine

(v1) 14-3 2020

- 1) Run Windows PowerShell as Administrator and execute:

```
Set-Executionpolicy Unrestricted
```

Select the answer [Y] and close the PowerShell.

- 2) Open the following link in a browser:

```
http://go.microsoft.com/fwlink/?LinkId=691126&fixForIE=.exe.
```

Save the file <visualcppbuildtools_full.exe> and execute it afterwards to install VisualStudio C++ 15.0 build tools necessary to compile breezySLAM. Select <Default> installation.

- 3) Install Python 3.8.2, using the link:

```
https://www.python.org/downloads/windows
```

Download Python 3.8.2 for Windows (be sure to get the 64-bit installer!) and run the installer. Select <Add Python 3.8 to PATH> and select install with all options but the Visual Studio 2015 option.

- 4) Download the SLAM Workshop for Windows 10 by using the link:

```
http://www.liacs.nl/~erwin/robotics/WSLAM.zip
```

Extract it in your <USER_DIR>, e.g., C:\Users\<your username>

- 5) Start the PowerShell and give the command:

```
pip install --user virtualenv
```

Add the path "<Your USER_DIR>\AppData\Roaming\Python\Python38\Scripts" to your PATH by the command:

```
$env:Path += "<Your USER_DIR>\AppData\Roaming\Python\Python38\Scripts"
```

- 6) Make a virtual environment with python3:

```
virtualenv myenv --python=python3
```

- 7) Activate your virtual environment:

```
myenv\Scripts\activate.ps1
```

- 8) Go to the directory <WSLAM> and issue the command:

```
pip install -e slam/python
```

- 9) Run the CoppeliaSim:

```
python start.py
```

10) Start a new PowerShell, activate your virtual environment, go to the <WSLAM> directory and run the simulation:

```
myenv\Scripts\activate.ps1  
cd WSLAM  
python run.py
```

Follow the further instructions of the SLAM Workshop.