

Extension

[Following the documentation here](#)

Build The Extension

This directory contains a script `create_extension.sh` that can be used to create an I4t-based Spot Extension for this example. This will create a file `spot_detect_and_follow.spx`, which can be uploaded to the CORE I/O. The extension requires that the payload be authorized on the robot admin console to run.

If building on a host system architecture that is not `ARM64` based run the following before continuing.

```
sudo apt-get install qemu binfmt-support qemu-user-static
```

Installing and running `qemu` will allow us to build ARM binaries on an x86 machine without needing a cross compiler, see [Build Docker Images Documentation](#) for more details.

This directory contains a script `create_extension.sh` that can be used to build a `ARM64` docker image and package all the files into an Extension. From the `ros2_driver` directory run the script

```
./create_extension.sh
```

This will create the `spot_ros2_driver.spx` extension file that you can upload to the CORE I/O or Scout platform. The script was tested on Ubuntu 22.04 with x86 architecture.

Before you install and run the `spot_ros2_driver.spx` you need to configure the port range used by a connection in the CORE I/O to be within the allowable port range.

Limit the ports used by a connection in the CORE I/O

SSH into the CORE I/O from the robot's WiFi

```
ssh -p 20022 spot@192.168.80.3
```

Make a copy of the default port range **not currently working with our CORE io**

```
cat /proc/sys/net/ipv4/ip_local_port_range > /proc/sys/net/ipv4/ip_local_port_range.bak
```

The default configuration of the ip_local_port_range

```
32768 60999
```

Limit the ports a networking connection can use to those reachable through the CORE I/O's firewall

```
echo "21000 22000" | sudo tee /proc/sys/net/ipv4/ip_local_port_range
```

This will force all connections from the CORE I/O to be on the port range 21000 - 22000.

Revision #2

Created 21 September 2023 19:26:46 by Dwight Howard, II

Updated 17 October 2023 18:09:35 by Dwight Howard, II