GUARDIAN-WAM

Quick-Start Guide

This Quick-Start Guide steps you through the Guardian-WAM system and running a simple program (Guardian-WAM Teleoperation). This document can be used in conjunction with the Guardian-WAM documentation at http://support.barrett.com/wiki/GuardianWAM and software documentation at http://code.google.com/p/gwam-ros-pkg.

Lab Space Setup
Requirement for operation:
- 110/220 VAC, 50-60 Hz (Required for 54V Lithium-Ion Batter Charger).
- Wireless external computer for logging into Guardian and WAM PCs

Assembly
Mount and connect the WAM into the Gaurdian.
(detailed at http://support.barrett.com/wiki/GuardianWAM/HardwareSetup)
The Guardian-WAM has an onboard wireless access point (AP). When the WAM turns on, it will request a static IP from a DHCP server of 192.168.2.110. The SSID of the AP is GWAM, and the password is "BarrettRobotnik". You can use a laptop PC or other wireless-enabled device to connect to the Guardian-WAM AP. To log in and configure the AP you can visit http://192.168.2.1. Username is "admin", and password is the defualt "1234".

Starting the Guardian-WAM
1)   **Switch on the main power to the system**
2)   **Turn on the Guardian PC by pressing the Guardian CPU Start Button**
3)   **Switch on the WAM Power**
4)   **Release E-Stops and press Restart button, resetting the safety system**

WAM Power — Main Power — Restart — Guardian CPU Start

Note: Upon Guardian-WAM Startup a ROS Master is started on the Guardian PC.   Also launched is guardian_complete.launch. This file will initialize and start all nodes for the Guardian-WAM sensors and motor control. The Guardian and WAM Joystick Teleoperation nodes are also started by default on the system. The wam_node is **NOT** started by default and must be launched by the user. This is for safety purposes involved in the WAM initialization.

5)   Use a secure shell (ssh) program to connect to the WAM PC.
   •   More information / instructions for connecting the Guardian and WAM PCs
   http://code.google.com/p/gwam-ros-pgk/wiki/InitialSetupInstructionsOffboardPC

```
--- Linux ---
$ ssh robot@192.168.2.110
Login: robot
Password: WAM
```

6)   Launch the WAM node on the WAM PC.

```
--- Linux ---
$ roslaunch wam_bringup wam_guardian.launch
```

7)   The Guardian-WAM system is now fully active.

```
--- View all active Guardian-WAM Nodes ---
$ rosnode list
--- View all active Guardian-WAM Topics ---
$ rostopic list
--- View all active Guardian-WAM Service ---
$ rosservice list
```

8)   Pair your Bluetooth Joystick and Teleoperate the Guardian-WAM System.
   •   More information / Instructions for pairing your bluetooth joystick:
   http://code.google.com/p/gwam-ros-pkg/wiki/GWAMTutorialsPairingPS3Joystick
   •   More information / Instructions for teleoperating the Guardian-WAM:
   http://code.google.com/p/gwam-ros-pkg/wiki/GWAMJoystickTeleop

Congratulations!

You have set up your Guardian-WAM!