

Common Problems and Solutions

Pasco-Ray Programming Guide

Team RUSH 27 LabVIEW

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Common Problem and Solutions

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Check List:

- Is the robot on?
 - Is the battery full?
 - Is the Power Distribution board powered on?
- Is the cRIO connected?
 - Ethernet and Power?
 - cRIO IP set to 10.0.27.2
- Is the Router/Camera connected?
 - Ethernet, power, on AP mode?
 - Is the camera set to 10.0.27.11
 - Is the Router set to 10.0.27.6
 - IP address set to 10.0.27.X?
 - Are you connected to 27?
 - Password:27WPAKEY
- Are your motors plugged in?
 - Victors/ Jags PWM and Power?
 - Do the Lights turn on when joysticks moved
- Is the Robot enabled?
 - Are the Joysticks plugged in?
 - Go to setup and I/O to see if you're reading

Did you E-Stop it?

- Power off Robot
- Close the Driver Station(application)
- Power on Robot
- Wait until connected then redeploy(unless you have built and deployed it)
- Reopen the Driver Station reconnect
- Go through Check-List

Redeploying Code

- DISABLE ROBOT
- In LabVIEW go to Robot Main
 - Hit the red stop sign
- On the Driver Station(application)
 - go to Diagnostics
 - Hit Reboot cRIO
 - Wait for Communications light to turn green
- Go to Robot Main and redeploy code

Rebooting Radio

- Power Router
- Hardwire(connect via Ethernet) router to any computer
- Set Router Mode to Bridge on back of router
- Wait for orange “Tri-force” Light start to blink
- Hold reset button for 10 seconds
 - Orange light stops blinking
- Wait for orange “Tri-force” Light start to blink
- Switch Router Mode to AP on back of Router
- Remove Ethernet connected to computer
- Set that computer address to 192.168.0.51
 - My Network settings
 - Wireless Network Adapter Settings
 - Properties
 - Internet Computer Protocol V4 (IPV4)
 - IPV4 Properties
 - Set IP address
 - Set Subnet mask to 255.255.0

- Connect to wireless connection “dlink”
- In your search bar of Internet Explorer/Firefox/Google Chrome, type 192.168.0.50
- You should be on the “D-Link” Wireless Setting Webpage
 - Username: Admin
 - Password: (Blank)
- Go to Wireless Network Settings
 - Enable Wireless: Yes
 - Wireless Network Name: 27
 - 802.11 Band: 2.4GHz
 - 802.11 Mode: Mixed 802.11n, 802.11g and 802.11b
 - Enable Auto Channel Scan: NO
 - Wireless Channel: 1
 - Transmission Rate: Best(automatic)
 - Channel Width: 20 MHz
 - Visibility Status: Visible
- Wireless Security Mode
 - WPA-Personal
- WPA
 - WPA Mode: WPA2 Only

- Cipher Type: AES
 - Group Key Interval: (Use default of 1800)
- Pre-Shared Key
 - Passphrase: 27WPAKEY
- Save Settings
- Close out of browser
- Set Computer IP to 10.0.27.x (any number not being used)
 - We suggest 9 or 10
- Connect to wireless network “ 27”

Reimaging the cRIO

- Connect to the cRIO
 - Set IP to 10.0.27.x
 - Connect via LAN
- Open the cRIO Imaging tool
 - Make sure Device Name is “TeamRUSH”
 - Select LabVIEW
 - Check Always run deployed code at start up
 - Check “Format Controller”
 - cRIO Switches
 - Leave Default
 - Make Sure to enter your Team ID
 - Press “Apply”

Setting up Axis Camera

- Plug into ethernet
- Between camera and computer
- Set computer 192.168.0.11
- Hold the back reset button while plugging in the power
- wait until yellow lights turn on
- Wait for green
- Run axis camera
- username: FRC
- password: FRC