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## GOLDi Labserver ##
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The GOLDi labserver software is written in C#. It provides a websocket service for
interactive experiment control. That's why the server needs an open port (firewall etc.).
The current version uses port 965 by default. Please make sure, that this port is open.

The server runs perfectly on a Microsoft Windows operation system (7, 8, 8.1, Server 2008,
Server 2012) as host.
But it is compatible to Mono 2.0 runtime under Linux. We can provide you a experimental
implementation for Debian 6&7 / Ubuntu 14.xx. You need to install the mono-complete
package.

    sudo apt-get install mono-complete screen

After that, you can start the GOLDi Server by following command:

    sudo screen mono GOLDiServer.exe

The server needs root permissions for websocket network access.

Additionally, you need an installed LAMP server. It means:
    * Apache 2
    * PHP 5.5
    * MySQL 5
    * FTP Server (for file transfer only, optionally)

    sudo apt-get install mysql-server php5 phpmyadmin apache2 proftpd

So you also need a unblocked port 80 for web services and port 21 for ftp file
transfers.

For connecting the GOLDi BCU component, you need installed FTDI D2XX drivers. You can
download these here:
http://www.ftdichip.com/Drivers/D2XX.htm

After installing the driver and connecting the BCU, you will see two new devices
in your device manager called "BCU A" and "BCU B". Sometimes they are called
"Serial Device (COMx)".

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## Install webcam ##
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Plugin a power plug and a Ethernet cable to each Foscam. Thereafter, you have to
check which IP they got from the DHCP server in your network.

You can open the admin control panel by inserting the URL in a browser:
http://IP-ADDRESS:88 (IP-ADDRESS ... given from the DHCP server)

The default login data is:
user: admin and
no password.

As the web control panels need access to all webcams, you have to forward ports to each
Foscam port 88.

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e.g.:

FOSCAM A,   Local IP: 192.168.0.100:88,  Router IP: 141.24.211.89,   External Port 10100
FOSCAM B,   Local IP: 192.168.0.101:88,  Router IP: 141.24.211.89,   External Port 10101
FOSCAM C,   Local IP: 192.168.0.102:88,  Router IP: 141.24.211.89,   External Port 10102


You can now access the admin panel by using the URL http://141.24.211.89:10100 etc.
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