### **ViconSDK setup direct hardwire**

### 1. **Connect Ethernet Between Machines**

* **Unplug the Ethernet cable** from the wall
* **Plug it into your personal Linux machine.**
  + This Ethernet connection is plugged into **MX1 port** on the Windows machine.
  + **MX2** connects to the **Vicon camera system**.

### 2. **Power On and Calibrate Vicon Cameras**

* Launch **Vicon Tracker** on the Windows machine
* Plug in and calibrate the Vicon cameras

### 3. **Assign Static IP Addresses**

#### On the **Windows machine**:

* Go to: Control Panel → Network and Sharing Center → Change adapter settings
* Right-click on the adapter associated with the **MX1 port**.
* Go to: Properties → Internet Protocol Version 4 (TCP/IPv4) → Properties
* Set static IP address:
  + **IP Address**: 192.168.10.1
  + **Subnet Mask**: 255.255.255.0
  + Leave DNS blank.
* MX2 is the Vicon Camera. IP: 192.168.10.2

#### On your **Linux machine**:

* Set static IP manually to 192.168.10.3
* Confirm connection by:

ping 192.168.10.1

4. **Download and Set Up the Vicon DataStream SDK (C++)**

* On Linux machine download the SDK from:  
  <https://www.vicon.com/software/datastream-sdk/>
* Extract the archive and navigate to:

~/Downloads/ViconDataStreamSDK\_1.12.../Release/Linux64/

### 5. **Create a C++ Test Project**

* Inside the Release/../Linux64 directory:
* mkdir vicon\_cpp\_test
* cd vicon\_cpp\_test
* Create and paste your code into main.cpp.

### 6. **main.cpp File Provided**

### 7. **Compile the Code**

From inside the vicon\_cpp\_test directory:

g++ main.cpp -o vicon\_client \

-I ../ \

-L ../ \

-lViconDataStreamSDK\_CPP

### 8. **Run the Executable**

* Ensure the SDK’s .so library is found by setting the LD\_LIBRARY\_PATH:
* LD\_LIBRARY\_PATH=../ ./vicon\_client

### 9. **See Live Tracking Data**

* If everything is working, you'll see terminal output like:
* cf2/cf2 -> Pos: [123.4, -567.8, 910.1] Rot: [2.3, 0.0,0.51]