NOAHLYTICS

Installation Guide

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Data Service Provided By:

NOAH

1.888.879.6624

# www.noahbasketball.com

Congratulations on subscribing to the Noahlytics Data Service!

You will be thrilled with the data you will obtain and the results your players will achieve from using the system. This document will walk you through the initial installation of the system hardware. A typical installation takes 4 to 12 hours. The installation time varies depending on how difficult it is to provide the power and live Ethernet cables to the equipment.

Below are the tools required for the mechanical installation of the wall-mounted box.

Tools Required:

A. Drill

B. Drill Bits – 3/16" masonry bit is included. If you are mounting to a wood wall you will need a standard bit for this.

C. 25' Tape Measure

D. Ladder

E. Lift (scissor or one man lift)

F. 5/16 inch socket – socket to install tapcon screws

G. Phillips head screwdriver

H. Level

I. Various wrenches or large adjustable wrench
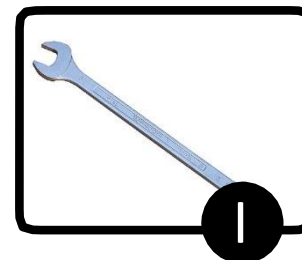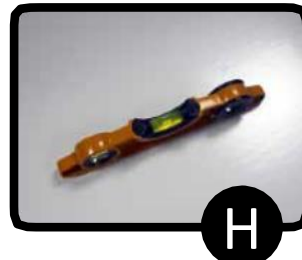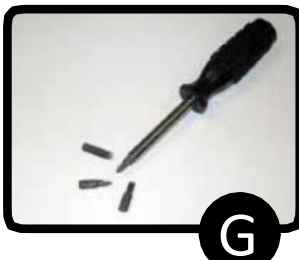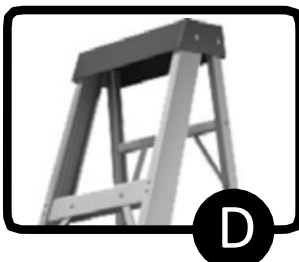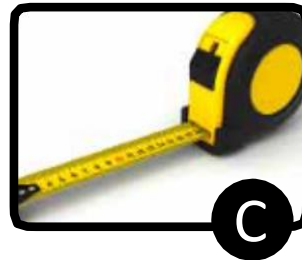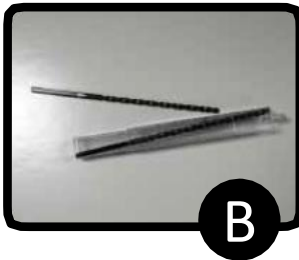
Parts included in shipment:
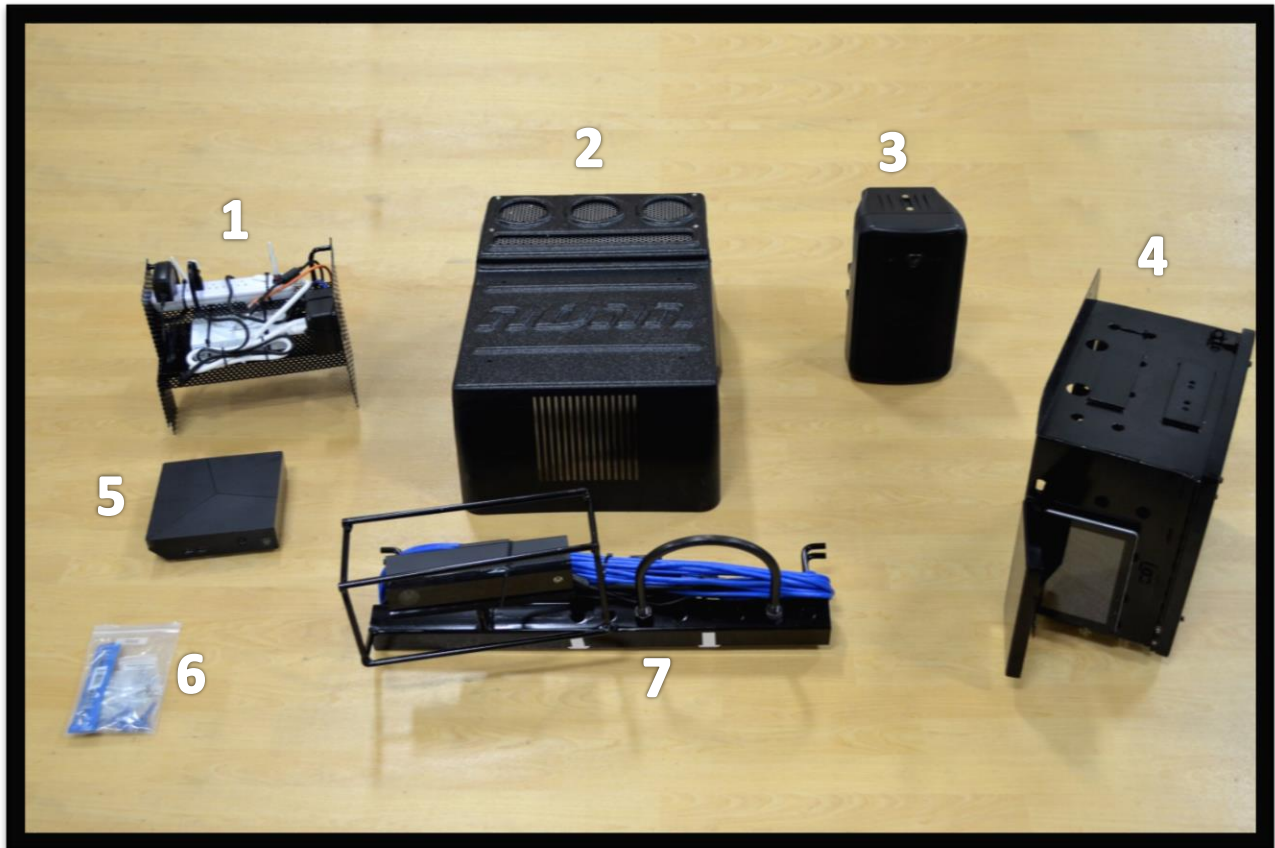
The above photo shows all the components you should have after you have unpacked the boxes**. If you are installing a fullcourt system, you should have two of each component in the photo above.

Below is a list of these components.

1. Hardware insert
2. Decorative cover
3. Speaker
4. Metal Box with touchscreen
5. Computer (**Model will vary based on purchase)
6. Mounting hardware and safety cables
7. Overhead sensor with 65' of cable (**Mounting bracket will vary based on installation requirements)

Other sample installation brackets:

7.a

7.b

7.c

7.d
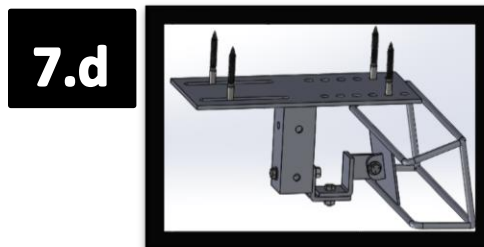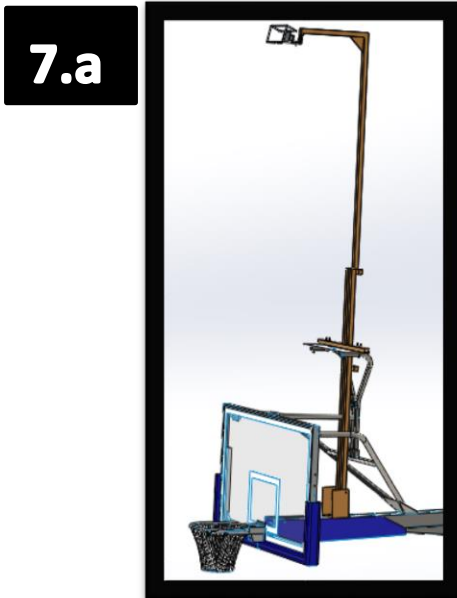
7.a. Example portable goal mount

7.b. Example I-Beam clamp with universal bracket and extension drop down arm for attaching to existing I-Beams

7.c. Example universal bracket stub assembly with U-Bolts for attaching to existing pipes

7.d. Example universal bracket stub assembly with lag bolts for wood installation (lag bolts may also be substituted with concrete expansion anchors for concrete ceiling installations).

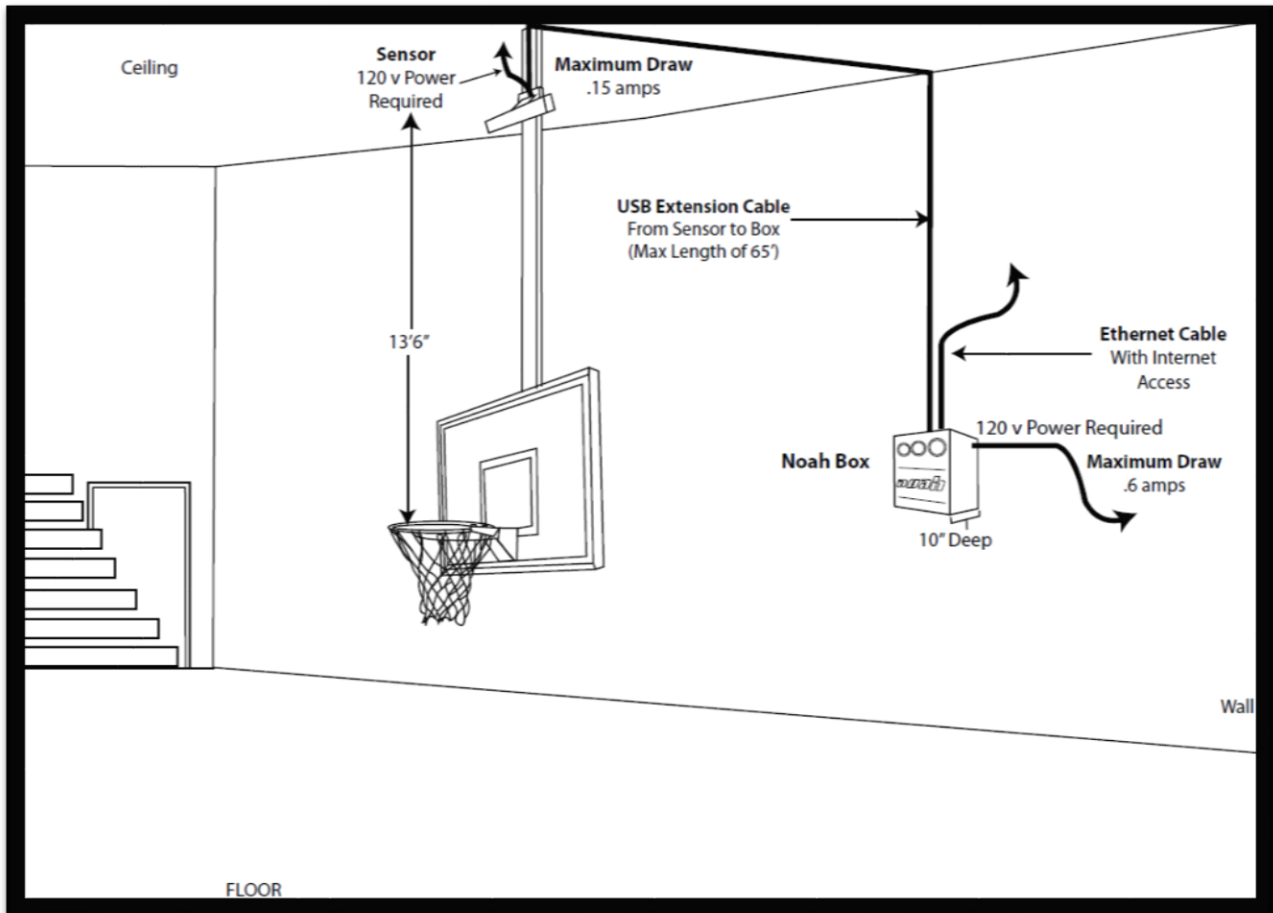The first thing you need to do is map out the installation. Unless you purchased the fiber optic cable option, you have a total of 65' from the overhead sensor to the box on the wall. See schematic below.   Once you have completed the installation on one goal, follow the same directions to install the 2nd system.

Step 1 – Mount the overhead sensor on each goal

We recommend that you first mount the overhead sensor to one of your main competition goals. By mounting the overhead sensor first, you can be sure that you have adequate cable length to reach the box on the wall.   A lift is required to safely mount the overhead sensor. You can use a scissor lift or a lighter one-man lift as shown in the photos below. It is your responsibility to take proper precautions to not damage your floor. There are two basic mounting positions for the sensor:

a) **Mounting Position Option 1: Directly above the goal with the sensor facing down towards the rim.**

This bracket will include a large U-Bolt to fix your sensor bracket to the basket's center pole. The bracket needs to be installed to the front of the pole with the sensor looking down. The sensor standard height is 23'6" from the U-bolt to the floor, or 13'6" above a standard regulation rim. The sensor needs to be level and reasonably square with the baseline. It is very important that the sensor is installed at the recommended height of 23'6". The system will not work properly from just any height. Unless otherwise instructed by Noah Basketball personnel, the bracket should be mounted using the U-Bolt holes that are closest to the sensor. You will notice there are arrows pointing to these holes. There are 4 nuts included with the U-Bolt which allows you add a second nut to each side. You should tighten the first nut securely to each side of the U-Bolt, then add the second nut to each side and tighten securely.

Next attach the sensor cage and multi-axis joint using the supplied bolt. The multi-axis joint will allow you to adjust the sensor during the activation phase and lock it in the correct position. For now, just try to point it generally towards the top of the rim. Loop the supplied safety cable through one of the remaining unused holes in the bracket and then through the cage itself and clip into the loop on the other end. This is a critical secondary safety measure and should always be in place. **CONTACT US AT 1.888.879.6624 IF YOU NEED ADDITIONAL SAFETY CABLES OR REPLACEMENT CABLES.**
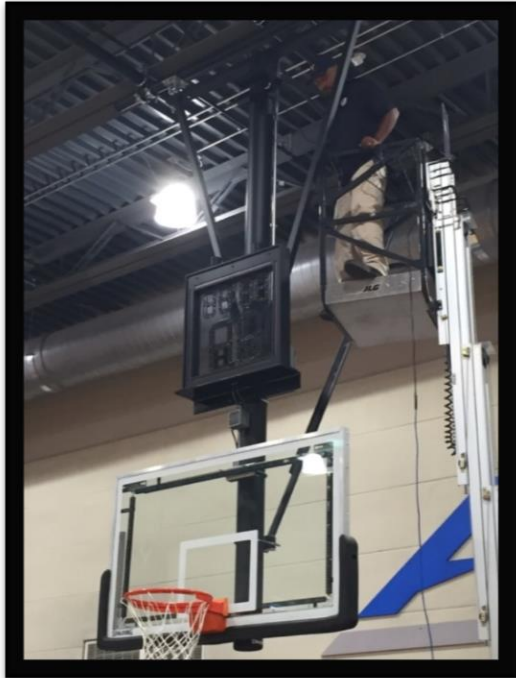
Once the sensor is mounted, you need to decide where you will get the 120 Volt power required for the sensor. You can bring power to the sensor from somewhere in the ceiling, or if you prefer you can run an extension cord back to the Noah box on the wall and plug in there. The amperage required for the sensor is very minimal (0.15 Amps max).

b) Mounting Position Option 2: Hanging from the ceiling max 6 feet up the lane and facing back down towards the rim

This bracket is composed of a mounting plate with slots and holes, an extension pole to lower or raise the sensor, safety cables, and the sensor cage. Depending on what you are mounting to, you will either have u-bolts, I-beam clamps, or lag bolts to attach to your existing structure in the ceiling. Once again, the sensor standard height is 23'6" from the U-bolt to the floor, or 13'6" above a standard regulation rim. The sensor needs to be level and reasonably square with the baseline. It is very important that the sensor is installed at the recommended height of 23'6". The system will not work properly from just any height. Attach the sensor cage and multi-axis joint using the supplied bolt. The multi-axis joint will allow you to adjust the sensor during the activation phase and lock it in the correct position. For now, just try to point it generally towards the top of the rim.

The sensor safety cable should be looped through the cage and then through one of the holes in to pole it is attaching to (zip tie the excess so it doesn't get in the way of the sensor). The bracket safety cable must be looped through the extender arm hole and then over something other than the Noah bracket itself (I.E. an existing pole, I-beam, etc). **CONTACT US AT 1.888.879.6624 IF YOU NEED ADDITIONAL SAFETY CABLES OR REPLACEMENT CABLES.**

Once the sensor is mounted, you need to decide where you will get the 120 Volt power required for the sensor. You can bring power to the sensor from somewhere in the ceiling, or if you prefer you can run an extension cord back to the Noah box on the wall and plug in there. The amperage required for the sensor is very minimal (0.15 Amps max).

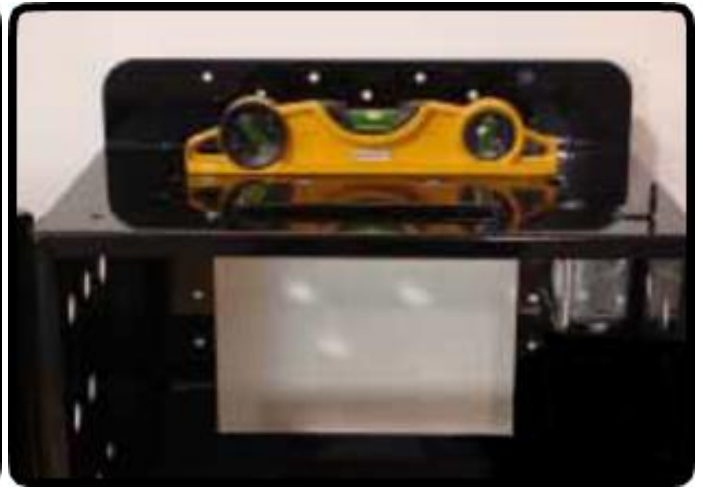## Step 2: Mount the Box to the Wall

Next, you will need to mount the box to the wall. There is a fair amount of flexibility in mounting location for the boxes. The only restriction is you only have 65 ft. of sensor cable (which has to reach the computer in the box) and you don't want to mount it so high that your players can't reach the touchscreen. Also, if the hoop is used for live games we don't recommend mounting it directly behind the basket for safety reasons. We recommend moving the box as far off center of the lane as you can while still having adequate cable length. The box location needs to allow for the sensor cable to stick out the front of the box approximately 6 to 8 inches.

- The best way to mount the box is to mark the location for one of the top holes and drill this hole first. Hold the box level in place per the instructions above and mark the top right hole. If you are mounting to a concrete wall use the 3/16" masonry bit that is provided to drill the first hole. Once the first hole is drilled, use a tapcon concrete anchor screw to mount the box to the wall using this one hole. Don't overtighten – you will come back and tighten all screws later. See photos below.

> **If you are mounting to a wood structure use the enclosed wood screws. You must make sure that one side of the Instant Box is secured to a wall stud.**

Place the first screw.   **Level and place the second screw.**

Now that the box is being held in place by the one screw, you then need to level the top of the box and mark another hole for the 2nd screw. Once the hole is marked you can allow the box to "fall" back down being held by the one screw. Drill the 2nd hold and install the 2nd screw. After installing the 2nd screw you should re-check to make sure the box is still level. The box doesn't have to be exactly perfectly level, but should be very close. If the box is still level, you can then install additional screws in the top if you feel it's necessary to properly secure the box. Sometimes screws will "strip out" and not tighten well.   If this is the case you can just drill another hole in the concrete or wood behind one of the pre-drilled holes to better secure the box. This entire area where the screws are located will be covered so don't worry about the appearance of having multiple screws.

Install additional screws on inside of the box – You now need to install at least 2 screws on the inside of the box. These 2 screws will further secure the box to the wall and will also provide security so that no one will be able to remove the box without being able to open the locked door. There are several holes available on the inside should you have a hole that "strips out". Install as many as you feel necessary to properly secure the box.

> **If you are mounting to a wood wall, be sure that one side of the box is aligned with the wall studs. The total weight is 40 pounds so it is important to have one side be secured to a wall stud.**

Step 3 – Run Electricity & Ethernet Cable to the Box

Now that the box is securely and properly installed, the next step is to run 120 volt electricity to the receptacle that is mounted inside the box. This work should be completed by a certified electrician. The amperage required for the Instant box is minimal so the easiest way to get power is typically from an existing electrical outlet, exit light, scoreboard, etc.

Next, you need to run an Ethernet cable with internet access to the box. You need to run enough cable so that it has 6 to 8 inches hanging out of the front of the box (See photo below).

Once the box is mounted and electricity and Ethernet cables have been run, we recommend using a shop vac to vacuum out the concrete dust or shavings from the bottom and top of the box. You can now plug the fan into one of the receptacles.

If you purchased the setup option assistance from your Noah Representative you can stop here and contact your representative. The Noah Representative will complete the remainder of the setup and installation for you.

Step 4 – Install Speaker System

The speaker system needs to be installed on the top of the box. Before placing the speaker on top of the Instant box, you should plug in the power supply cable and the audio cables. It is difficult to plug these in once the speaker has been mounted. 2) The volume control has been pre-set from the factory and shouldn't be changed. It should be set at approximately 2/3 of full volume. Also, make sure the speaker is powered on before mounting. There is a toggle switch on the back of the speaker and a green light will indicate it is powered on.
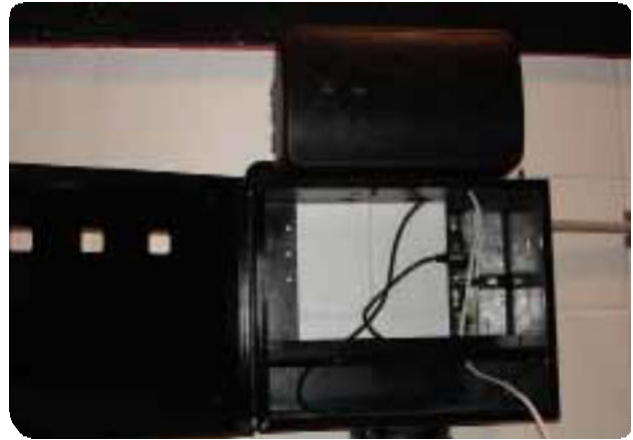
Hold the speaker system above the Instant box and feed the audio cables and power supply cable through the holes in the top of the Instant box. There is a large hole on the top of the Instant box for the power plug to go through and the audio cables can be fed through any of the remaining holes in the top of the box. Once the wires are fed through, line up the speaker system threaded holes with the two small holes on the top of the box and secure with the two screws that were provided. You should now route the audio cable out the front of the box. See photo.

Step 5 - Slide the hardware insert into the box with the Ethernet ports facing outward like photo below.

As you are inserting the hardware insert, you need to plug the insert power supply into the unused plug in the corner of the box. Next plug in the Ethernet cable into the WAN port on the white network device that is secured to the insert and lastly plug in the speaker electrical supply cord into the power strip on top of the insert.
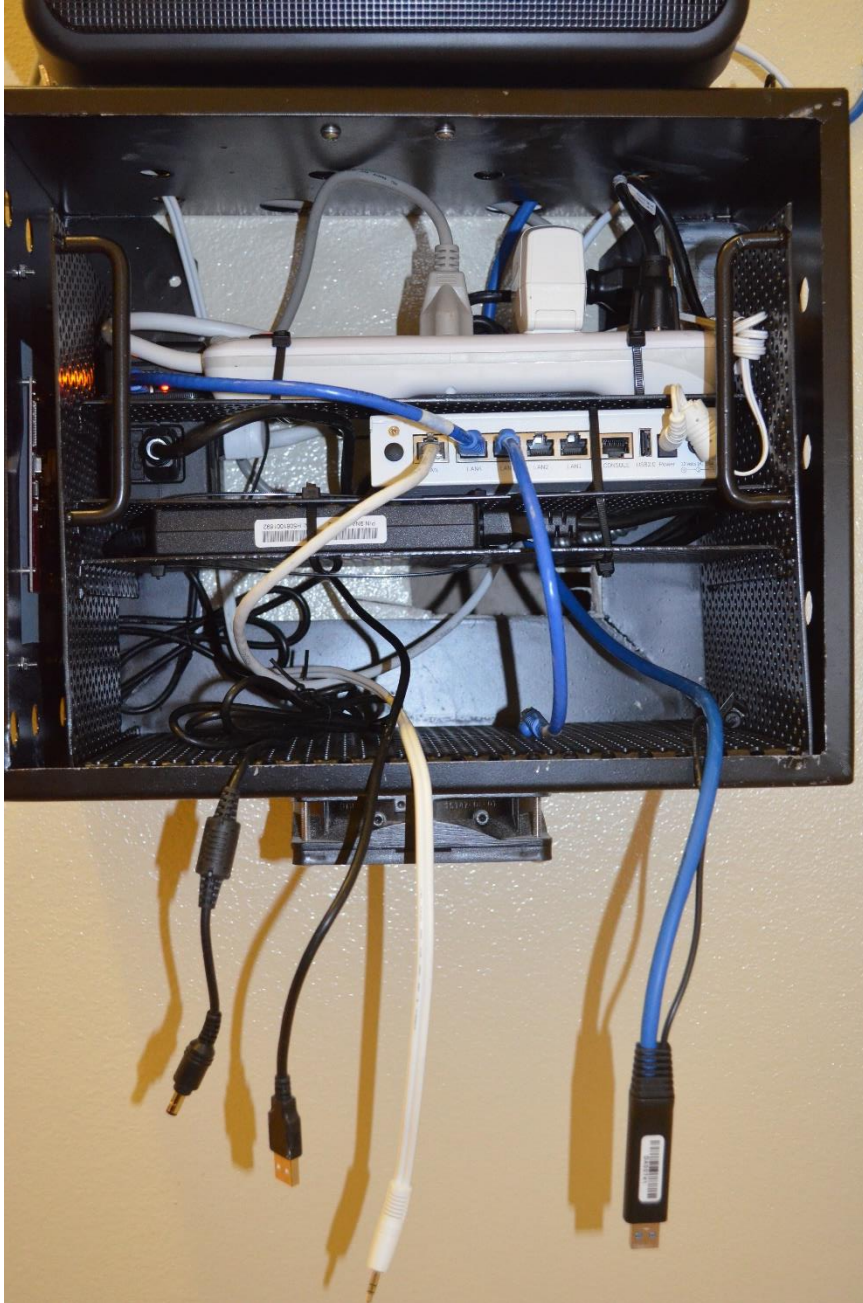
Step 6 – Connect and Install the Computer

The final step of the installation is to connect the computer. There should now be 3 USB Cables, a short Ethernet cable, and the computer power cable that is routed out the front of the box. The large blue cable and the 2 usb plugs connected to it must be connected in the back of the computer. These are the only usb 3.0 ports and the system will not work if this cable is plugged

in the USB ports on the front. The other 2 usb cables should be plugged in the front of the computer. Lastly, plug in the computer power supply cable and the short Ethernet cable.

Step 7 – Power up the computer and complete setup

Once all cables are connected you can now power up the computer. The computer will automatically launch the Noahlytics Software and calibrate automatically. Please call 1-888-TRY-NOAH to inform the Noah Basketball office that your system is up and is ready for final activation and cloud configuration.

If everything seems to be working properly you can close the door and add the lock to the latch on the top right of the box. Lastly, place the black front cover over the entire box and secure with the included thumb screws to hold the cover in place.

Don't hesitate to contact us should you have any additional questions at 1-888-TRY-NOAH (1-888-879-6624).