Fitness Golf Installation

The components of the Fitness Golf system are manufactured and shipped by several vendors so your entire package will most likely not come at the same time. Before following these installation instructions you should gather a Phillips head screwdriver, a hex wrench set, a crescent wrench or socket set, a tape measure, scissors, an Exacto or utility knife, and a pair of pliers. Please read these instructions through once before beginning the installation. Two people working together should install the components. The final assembled hitting cage will need a space of at least 10’W x 20’L x 10.5’H. Assembly will be much easier if assembled in a larger area and then moved to the final area. Natural and artificial light should be kept to a minimum at the front, open end of the hitting cage to allow for the clearest and brightest picture. All installation hardware is included except for the following which must be purchased at any large home improvement store:

1. (11) 1”x10’ EMT pipes.
2. (7) 6’ rubber pipe insulation pieces with slit down the side and self adhesive strip. This insulation must fit 1” pipe.
3. A power strip and several extension cords.
4. If the hitting cage will not be placed on carpet, then a 12’x15’ piece of green indoor/outdoor carpeting should be attached to the ground using 2-sided carpet tape.
Installation Steps

1. Place (2) 3-way pole connectors to the rear of the hitting area, and the (2) 2-way connectors to the front of the hitting area. Connect these (4) connectors using (3) conduit pipes leaving the front of the hitting cage open. Make sure all pipes are fully indexed all the way into each fitting. You may have to fully unscrew all of the eye bolts to allow for this:

2. Place (2) pipes vertically into the left front and right front fittings.

3. Place (2) pipes vertically into the left rear and right rear fittings.

4. Place a 3-way connector at each of the (4) tops of the vertical pipes.

5. Use (3) pipes to connect the top left rear to the top right rear, the top left front to the top left rear, and the top right front to the top right rear. Do not connect the top left front to the top right front yet.
6. Mark the final pipe at 61.5 inches from one end and also at 26.5 inches from this same end. Slide the projector mount over the pipe so that the threaded plastic piece is installed like below when the 26.5” mark is to your right. Center the projector mount over your 61.5” mark and tighten both hex screws.

![Image of pipe and projector mount installation](image1.png)

7. Install this final pipe connecting the top left front to the top right front. Make sure the threaded plastic piece is pointing exactly downwards and that the 26.5” mark is at the upper right. If installed correctly, the plastic projector mounting piece should extend away from the cage not into the cage:

![Image of final pipe installation](image2.png)
8. Make sure all pipes are fully indexed into the fittings and tighten all eye-screws by hand. The finished cage should look like this but without the extra rear horizontal pipe that is shown here:

9. The (4) pipes that make up the entire **rear** panel of the cage need to covered in the pipe insulation. This includes the (2) horizontal and (2) vertical pipes. The insulation is easily cut to length with scissors. Small cuts should be made over the eye-screws with an Exacto or utility knife. The insulation seams should all face to the outside of the cage and the plastic strips should be removed from the slit and the insulation pressed together to form a solid cylinder.

10. Now the net is attached to the **inside** of the cage. Lay the net out so you have it oriented correctly to leave the front open and to cover the left, right, rear, and top of the cage. Working from the top to bottom, attach the net at each corner of the cage.
with ball bungees. Also attach the net at the midpoint of each pipe with ball bungees. In between the ball bungees, use large black zip ties to tighten the net snug to the top pipes and the vertical pipes. Do not attach the net yet to the upper front horizontal pipe or any of the horizontal pipes contacting the ground.

11. Roll the excess netting under the ground pipes from inside to outside and pull up snugly and attach to the netting with the small black zip ties. Also roll the excess top netting under the front top crossbar and pull back snug over the top crossbar and secure to itself using the small black zip ties. Try to pull the top netting snug enough to remove most sagging of the top netting.

12. Install the black halogen lamp holder by unscrewing the bolt from the conduit hanger, springing it around the front upper pipe, and reinstalling the bolt as shown below. Tighten the bolt completely so there is no movement. Make sure the closest edge of the conduit hanger to the upper right corner is at your prior mark of 26.5” as shown below on the right picture. The conduit hanger and lamp should face straight down. Now you can install the halogen light inside the holder. Tighten the knobs on either side of the lamp securely so that the light shines straight down. Make sure the black plate is not attached to the bottom of the lamp holder as shown on the left.
13. Install the (4) 10’ x10’ blackout panels from the outside of the cage to cover the left, right, back, and top of the cage. Attach the grommets to the upper frame pipes first using ball bungees, and then to the lower pipes using large black zip ties. Now connect the side grommets to the side pipes with large zip ties. If obvious wrinkles still exist, a paper hole punch can be used to attach additional zip ties where needed.

14. Now it is time to install the impact projection screen to the rear of the cage. For the most part, the instructions that come with the screen can be followed. Make sure the longer dimension is horizontal and the shorter dimension is vertical. The top and bottom have (5) grommets and the sides have only (4). Also make sure that the correct side of the screen faces forward with the smooth side of the grommets and smoother side of the hem indicating this. Mark the right rear and left rear poles ~ 20 inches down from the upper horizontal pole. Attach the top right screen grommet to the right rear vertical pole at this mark by wrapping a large black zip tie around the vertical pole and tightening snugly. Do the same for the top left screen grommet. Now using small zip ties attach the remaining upper grommets to the netting. Make sure to wrap the zip ties around enough of the netting so that the upper edge of the screen makes a straight horizontal line between the prior two attached grommets. Do not fully tighten these upper zip ties yet. Now attach the lower right and lower left grommets to the lower corners of the cage at an angle with the large ball bungees as indicated in the screen instructions. Now go back and tighten the upper zip ties snug to the cage netting. To further remove wrinkles, large black zip ties should be installed to the right and left vertical grommets by wrapping the zip ties around the vertical pipes. Do not over
tighten these or you will create creases in the screen. Do not use zip ties on the bottom grommets. The installed screen should look like this minus the upper horizontal pipe:

15. The carpet strip now needs to be attached in front of the right rear vertical pole to prevent any golf ball bounce back. Starting at the very top right rear of the hitting cage, and with the carpet edge grommets to the right, attach the right upper grommet to the far right upper pole about 6 inches in front of where it meets the upper rear horizontal pole. Tighten this zip tie snugly. Now, using another large zip tie, attach the left upper grommet of the carpet strip to the upper netting 6 inches from the rear netting so that the carpet strip is now parallel to the screen and 6 inches in front of it. Now attach the right bottom grommet to the right lower pole on the ground by wrapping another large zip tie around this pole 6 inches in front of where it meets the rear lower horizontal pole. Tighten this snugly. Proceed to attach the remaining carpet strip grommets to the right netting using small black zip ties. Attach these in such a way that the carpet strip remains as parallel as possible to the screen:
16. Now take the 10 foot rubber strip and uncoil it and place it on a flat surface in the sun for 10 minutes. Cut off ~ 1 inch from either end using sharp scissors or a utility knife. Bend and and/or walk on it until it lays flat. Now place it on the ground all the way up against the rear ground horizontal pipe. Rather than leaving it flat, lift the rear edge up and lean it against the rear pipe so that the rubber strips top edge is level with the top of the rear pipe. Press it well into place along the entire rear pipe:
17. Your completed golf simulator cage should look similar to this:

18. If the width of the installation room allows for this, spring the left and right cage panels outwards 1/2 foot. This will increase the backswing distance that a player will have.

19. Attach the mounting hardware to the projector following the included directions. Carefully mount the projector upside down with the lens facing the screen, to the top crossbar mount using the threaded plastic ring. Don’t worry about tightening fully yet. Attach the HDMI cable and projector power cord to the back of the projector and run these cables over the top of the cage and down the right side. Similarly run the halogen power cord over the top of the cage and down the right side of the cage. Attach both power cords to a power strip on the ground using extension cords if needed.
20. Connect the computer power cord from the back of the computer to the power strip. Connect the other end of the projector HDMI cable to the computer rear graphics card HDMI socket. Connect the computer mouse and keyboard to two rear USB ports.

21. Turn the computer and projector on. Adjust the projector mount so that image is visible on the projection screen. If the image is upside down, you can turn yourself upside down or temporarily unscrew and invert the projector to select your language and then hit the “menu” button and go to “System setup: Basic” and change projector position to “Front Ceiling”. This should invert the image so it is displayed correctly on the screen when the projector is mounted in the upside-down position. You can leave all the projector settings in default mode except for the following: Press the menu button and then select the picture menu tab. Set picture mode to “Bright”. Now select the display menu tab and set the aspect ratio to “Auto”. Next, press the keystone button and adjust this setting to “6”.

22. Now go to “Control Panel” on your computer and then click “Display”, then “Adjust Resolution”. Change the resolution to 1600 x 1200 and click “Apply”. Your desktop should now fit your impact screen.

23. Now adjust the projector using the zoom ring so that the image is just inside the side screen grommets. Tilt the projector up or down so that the top edge of the image is just below the top grommets. Once the projector is positioned correctly, tighten the plastic projector mount screw ring securely with a wrench or channel locks so there is no movement. Adjust the focus ring so that the center of the screen is in perfect focus. Finally, place a large zip tie under the projector mounting plate and around the upper cross pipe to prevent the projector falling in case of mount failure. The projected image edge spacing on the screen should look similar to this:
24. Attach multiple strips of Industrial strength 2” x 15’ Velcro strips to the bottom of your hitting mat and to the same locations on the floor where the mat will be positioned. Place your hitting mat so the longer 5 foot length is parallel to your screen and the shorter 4 foot width is parallel to the side panels. Position the mat about 18 inches from the right cage panel and centered at the front of the hitting cage so that 2 feet of the mat extends into the cage and 2 feet extends out from the cage. See below:

25. Securely attach the protective case to your SkyTrak unit and place the bubble level on the top of the SkyTrak unit as seen above. Once you have downloaded the SkyTrak app and followed the instructions on connecting your SkyTrak unit to your computer, turn on your SkyTrak and open the app so the laser dot shines on the mat. Move your SkyTrak unit so that this laser dot is midway between the front and rear of your hitting mat (2 feet from each) and 9 inches from the right edge of the mat. See below:
26. Using the leveling bolts on the SkyTrak protective case, adjust these bolts so that the bottom of the SkyTrak unit itself is level with the top of the hitting mat surface, and the bubble in the level is centered in the circle. Once you actually start using the Fitness golf software, you may need to make slight adjustments to these leveling bolts so that all shots are registered including drives, high lofted chips, and putts. If the theft of the SkyTrak unit is of concern, attach the Kensington lock to the Kensington slot of the SkyTrak case, and wrap the cable around the right ground pole.

27. Insert the USB Ant+ stick into one of the top or front USB ports on the computer which should be similar to either of these examples:
28. Connect the bike sensor to the bike following the directions that came with the bike sensor. It is best to install the magnet to a spoke if present. If using a stationary bike and no spoke is available, then either the speed or cadence magnet can be attached to the solid spinning wheel using superglue, epoxy, or poster putty. If no external spinning wheel is present then the sensor can be attached to the pedal crank and either magnet can be attached to a rigid portion of the bike as shown in the second picture below:
29. The bike and treadmill should be positioned right and left of the center of the screen and the front of both should be no closer than 6 feet from the front of the hitting cage:

30. The computer needs to be within 10 feet of both the treadmill and the bike sensor so if the foot pod and/or bike sensor are not transmitting movement data correctly you may have to move the computer closer to them or buy a usb extension cable if it is not possible for the computer to be within 10 feet of the treadmill and bike.

31. If the treadmill and/or bike are not illuminated enough, a spotlight should be directed onto the equipment so as to not cast light onto the projection screen.

32. If you wish to have a fuller sound than the projector speakers provide, you can purchase inexpensive computer speakers and attach to the rear computer speaker port.

33. Read through the Fitness Golf user manual to learn how to set-up and use the software. The first time you use the software you will need to make the following setting adjustments: On the home screen click “Options” then “Screen Settings”. Make sure “Full Screen” is checked and “Aspect Ratio” is at “4:3”. Now change the “Screen Resolution” to “1600 x 1200”. Go back to the home screen and select the “Graphics” button. Make sure the “Quick Select” is set to “Maximum”. Change the “Brightness” to .79 and “Contrast” to 2.00
1. If you will be using the exercise modes, make sure that both you and your doctor feel you are healthy enough to participate in this. Make sure to drink plenty of water and to use a fan or fans to help control your body temperature.

2. Before using the Fitness Golf software, all players should first slowly swing a driver to make sure they have enough club clearance from the hitting cage top and side poles, as well as the fitness equipment behind them. If not, the SkyTrak unit and hitting mat may need to be moved as well as the fitness equipment. Some very tall players, or players with abnormal swings, may not be able to use the longer clubs.

3. Always make sure the golf grips are in good enough shape to allow for a full golf swing without losing control of the club.

4. If using the fitness modes, a player needs to use a towel to frequently wipe the sweat off of their hands and the golf grips before swinging.

5. Never swing when someone is within the hitting cage or within a swing distance behind you.

6. Errant shots can occasionally rebound back towards you so always be aware of this. If a player is frequently missing the impact screen and getting rebound shots, they should consider the use of limited flight golf balls.

7. The lower rubber protective strip should always cover the rear lower pipe and the position of this may need to be adjusted periodically.

8. The protective carpet strip needs to always stay in front of the right rear vertical pipe. If this is hit frequently, the zipties may need to be replaced or a new carpet strip installed.

9. Repetitive hitting of the golf ball and/or hitting mat can lead to strain and other injuries of the hands, shoulders, and back. If any pain is felt by a player, the golf session should be stopped and medical attention sought if needed.

10. All forms of exercise contain inherent risks. A player agrees that in using the Fitness Golf software, they assume all risks of injury and will not hold Fitness Golf LLC responsible for any such injuries.

Congratulations- You did it!!!