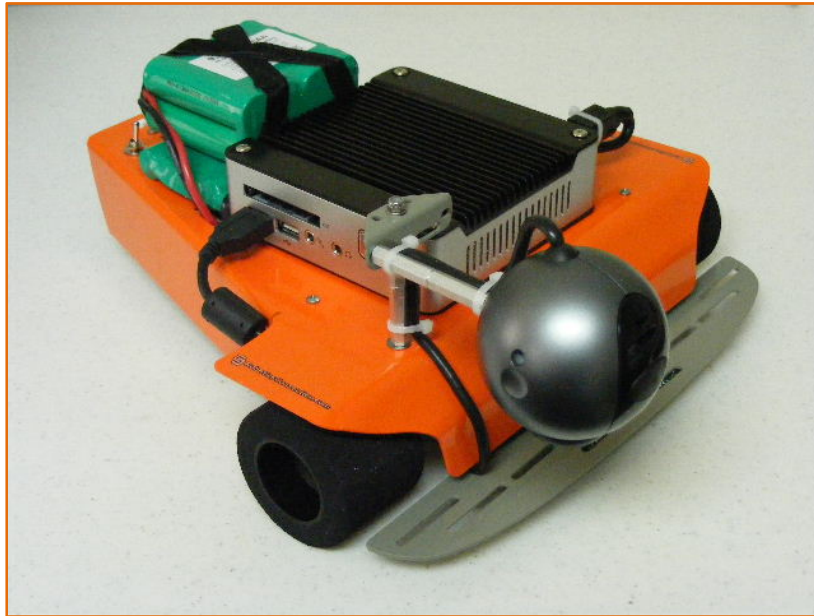




Stinger CE Web Cam Installation



Author: Jason Summerour

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Introduction

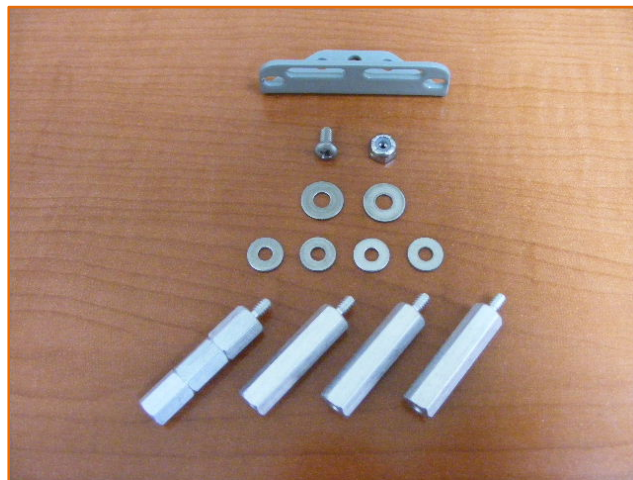
This guide describes how to easily install a Logitech Quickcam Pro 5000 USB Web Cam to the Stinger CE Robotics Kit. Installation requires the use of a Phillips head screw driver.



Parts

The installation kit includes just a few parts:

1. Gray angle bracket
2. Four 4-40 x 1" aluminum hex standoffs
3. Four #6 Flat Washers
4. One 4-40 x 1/4" Pan Head Phillips screw
5. One 4-40 nylon lock nut





Assembly Procedure

1. Start by popping the round web cam body off of the pivot base as shown below:



2. Using a small screw driver, remove the two Flat Head Phillips screws holding the black post on, as shown below. Set the black camera post aside for now.





3. Place the Phillips head screws back into the pivot base, so you won't lose them.



4. Screw two 4-40 x 1" Aluminum Hex Standoffs together as shown below. Repeat for the other two 1" standoffs.

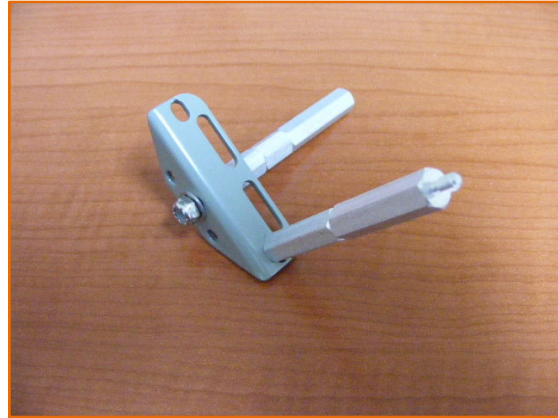


5. Attach one of the two pre-assembled 4-40 x 1" Aluminum hex standoffs from step 4 to the center slot on the gray angle bracket using the 4-40 nylon lock nut and #6 washer as shown below.





6. Attach the other pre-assembled 4-40 x 1" aluminum hex standoff from step 4, to the right side of the gray angle bracket using the 4-40 x 1/4" Pan Head Phillips screw and #6 washer as shown below.



7. Now, **carefully** thread the post onto the male 4-40 threads at the end of the camera mount standoff as shown below. ***You may have to repeat threading it on a short distance, then backing it off, until the post is fully seated on the mount.*** This will basically 'cut' threads into the plastic, and ensure a nice, tight fit. Make sure the notches in the black post are oriented as shown in the right picture below. If not, loosen the 4-40 x 1/4" Phillips head screw attaching the hex standoff to the black angle bracket, reposition, and tighten.

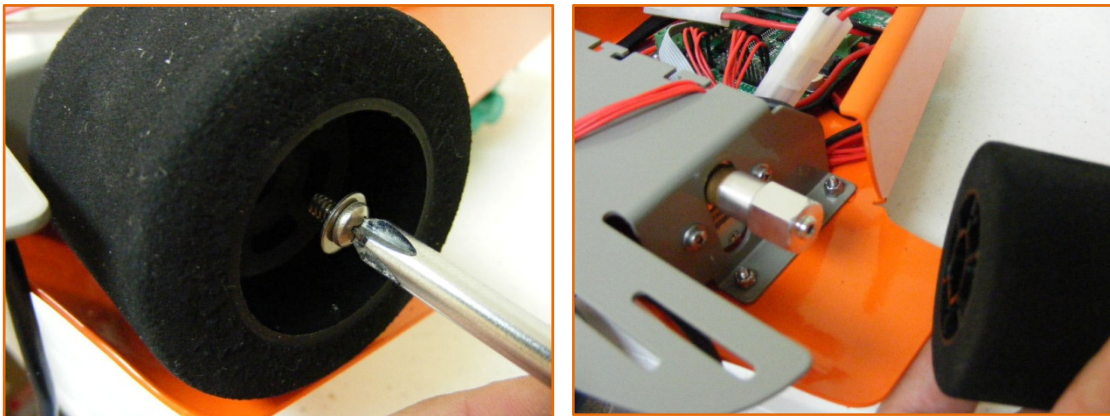




8. Now, snap the camera onto the newly assembled camera mount as shown below.



9. Remove the right drive wheel from the Stinger. This requires the removal of the 6-32 Phillips head screw and washer holding the wheel on as shown below.



10. Remove the front, right 4-40 x 3/8" Phillips head screw that bolts the sub-frame to the chassis. Please note that there is a nylon lock nut on the bottom side which will be removed also.

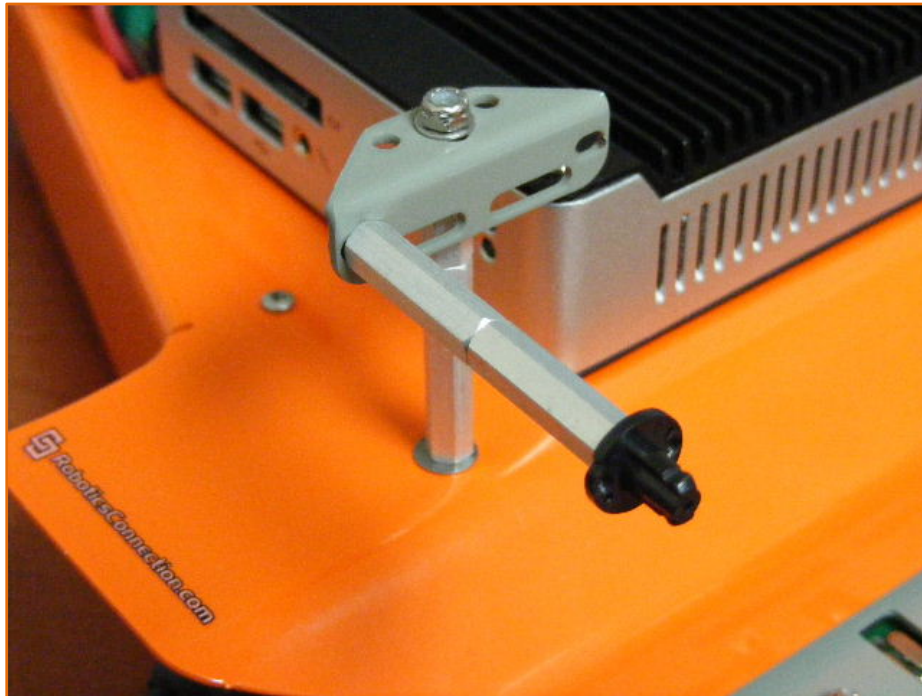




11. Now place the 4-40 x 3/8" screw you removed in step 10, up through the sub-frame, and out the top of the chassis as shown. Place a #6 washer over the bolt as shown.



12. Now thread the web cam mount onto the 4-40 x 3/8" Phillips head bolt as shown. Snug the mount down from underneath using a Phillips Head screw driver. Ensure that the mount is oriented so that the camera post is perpendicular to the front of the robot.





13. Snap the webcam onto the webcam mount so that the camera is looking straight down, as shown below. Also, route the webcam cable through the gap between the front of the Stinger shell and sub-frame.

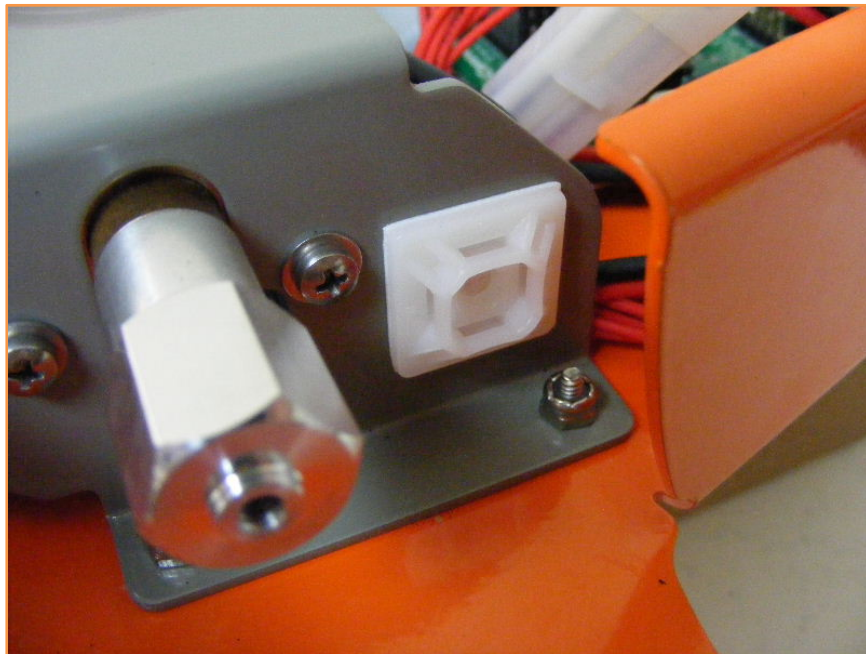


14. Use tie wraps to secure the webcam cable to the webcam mount as shown below.

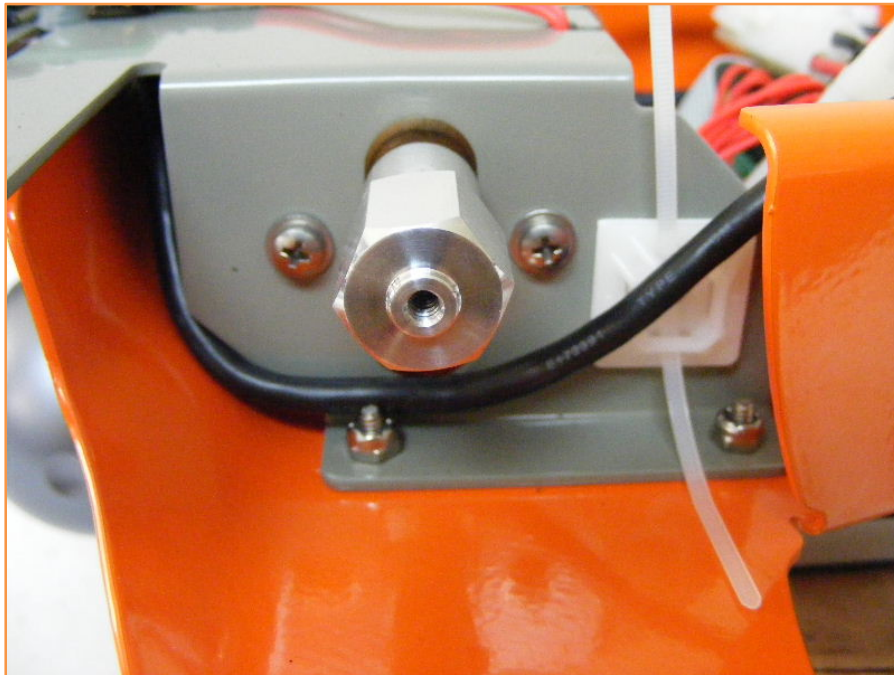




15. Place an adhesive tie wrap square (included in Stinger CE kit) to the side of the sub frame as shown below:



16. Route the cable next to the sub frame as shown, and beside the tie wrap square. Also, place a tie wrap through the tie wrap square as shown. We will use it to secure the cable in a few steps.

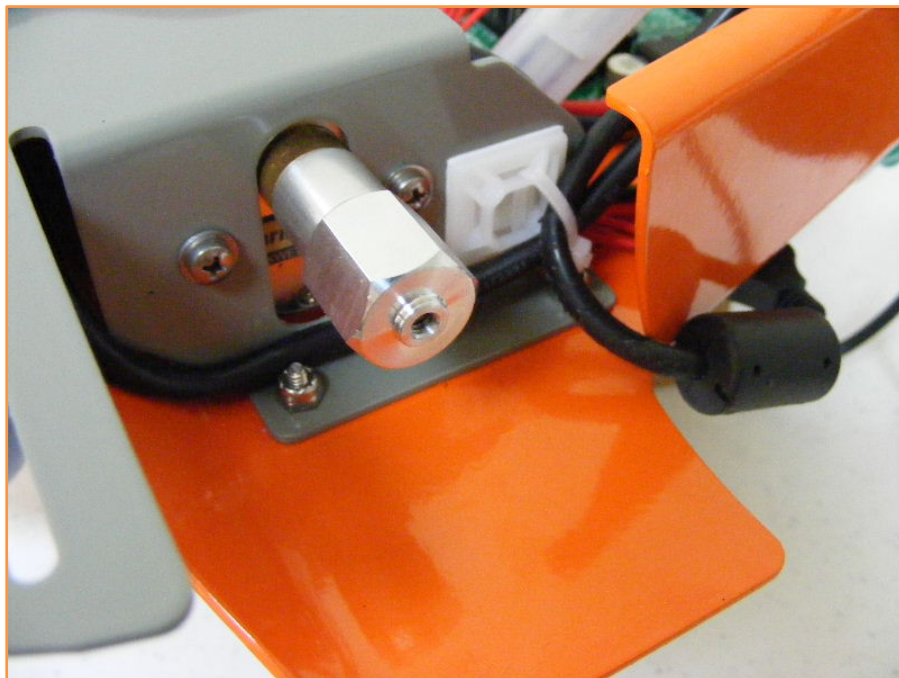




17. Plug the other end of the USB Web Cam cable into the eBox-2300 as shown below.

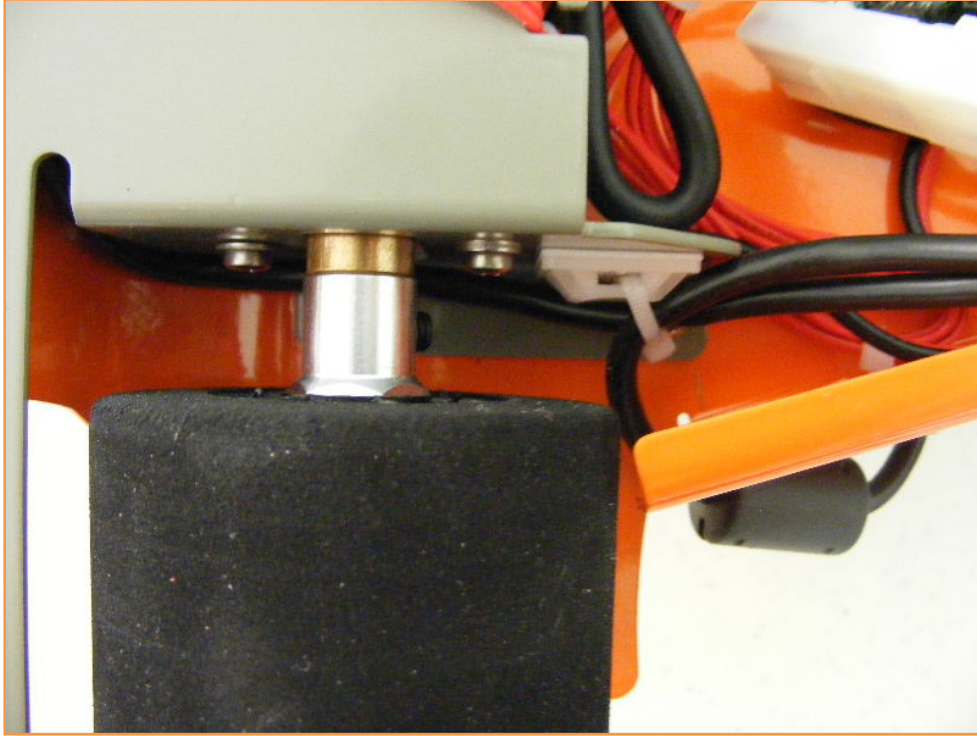


18. Route the cable around the corner of the chassis as shown, and secure it to the adhesive tie wrap square with the tie wrap as shown below.

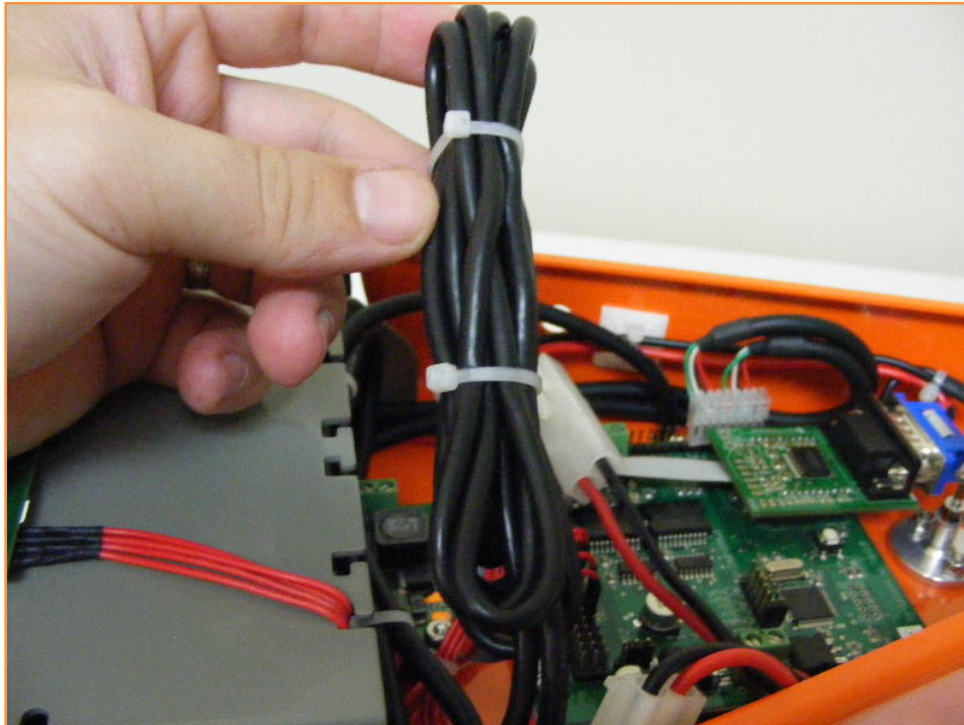




19. Replace the tire, secure with the 6-32 screw & washer, and ensure all wires clear the wheel.

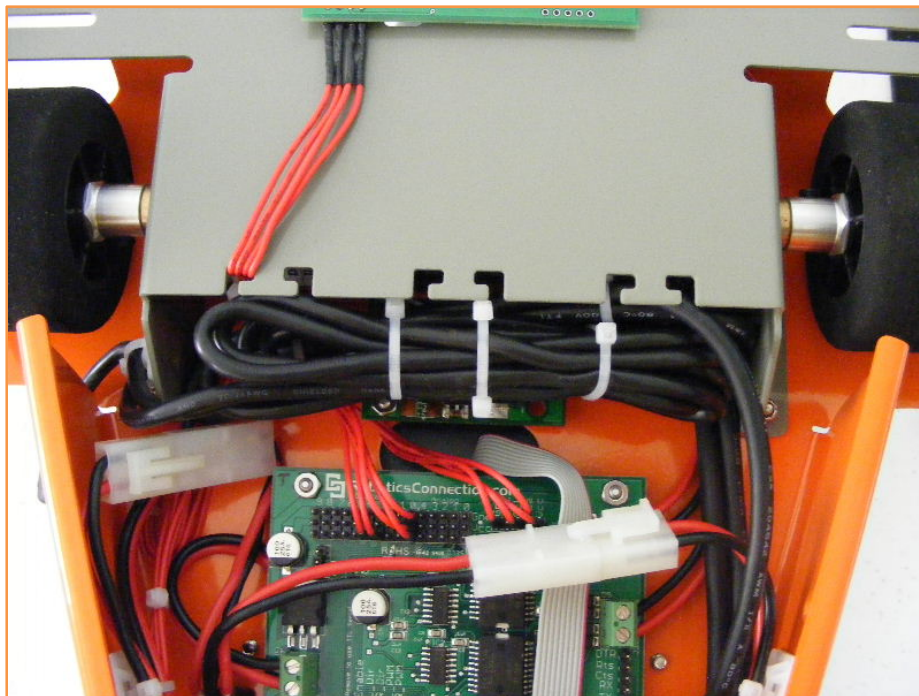


20. Bundle the excess wiring neatly together, and secure using two tie-wraps as shown below.





21. Tuck wire bundle under sub frame lip, and secure to existing wiring using a single tie wrap as show below.



22. The Stinger CE Web Cam installation is now complete!

