

Video Catch-pole With Extensions



Purpose:

To rescue small animals that are outside the normal capture reach of existing catch-poles. This allows for the rescue of animals in wells or down sewer pipes.

Abstract:

Many animal rescues have failed because of the limitations of commercial capture-poles; usually limited to maximum distances of 12 – 20 feet. In 2004, I assisted in the rescue of a small puppy that had fallen 35 to 40 feet down a hole the size of a telephone pole hole. We could barely see the puppy at the bottom of the hole. We rescued the puppy by lashing a capture pole to a sewer camera. By watching the camera video monitor, we were able to position the capture pole into position.

Animal Control Officers cannot always have sewer cameras available, so I decided to build a similar device that could be constructed within the budget of a small animal control agency from parts available at most hardware stores.

Details:

I selected a waterproof infrared camera and monitor that operates on a 12 volt power supply. The camera cable is 50 feet, which I believe is the maximum distance that you can adequately use this capture device. The camera is sold as an underwater camera to view fish from a boat.



I mounted the camera in a plastic utility junction box that is mounted on the end of 1 inch PVC pipe. The camera was aligned with the hole at the other end of the junction box.



The camera is oriented so that the capture-pole is at the top of the monitor.

The infrared LEDs allow use of the camera in areas that are completely dark. The infrared LEDs illuminate the area within the field of the camera.



The capture-pole is lashed to the camera pole with the use of hose clamps. It is critical that the capture-pole is securely connects because it will be bearing the weight of the rescued animal.



Although the PVC extension poles can sufficiently carry the weight of the animal, I have added a rope to carry the weight so that the pole will be easier to manipulate when attempting to place the capture-pole's noose around the animal.

The capture-pole's cable is of insufficient length to accommodate a long reach. This cable is necessary for closing the noose around the animal. Cable ties can allow you to make a loop on the cable and a light rope can be added to extend the length of the cable.



If you accidentally close the noose prior to positioning the animal within the noose, you will either have to pull the entire device out of the hole to pull the release or you can add another rope to the release. I selected red cord so as to warn the user to not pull the cord except to reopen the noose. You do not want to have the animal pulled half way out of the hole, only to accidentally pull the release and cause the animal to drop back again.

With all of the ropes and video cable, it is important to line up the cords so they don't interfere with one another's operation.



To keep the video cable out of the way, you can use cable ties to secure the cable to the pole every four feet (the length of one piece of extension tubing).



I selected the four foot length so that all of the equipment could be broken down to fit in the trunk of an automobile.



Unit with monitor, four-foot extension, capture pole and camera pole.

The PVC pipe can be difficult to thread. I found that using Plumber's Grease made assembly and dis-assembly easier.

I was remarkably impressed with the quality of the video. The scan rate of the video monitor made it difficult to adequately capture the images from the monitor.



I used a four-foot extension capture-pole, so if you want to place the noose further out in front of the camera, you can simply extend the capture-pole.

You should recharge the 12 volt battery on a regular basis so that the equipment is already ready for use.