

# Video Acquisition Guide

Hey there! This guide is part of the Kross project, which relies on video collected of traffic intersections to be used with traffic analysis software. It will walk you through the process of acquiring video by building your own collection setup. This guide has two parts, one describing the setup we created and how to make it yourself, the other outlining the minimum required features to build your own unique collection platform.

## *Our Hardware*

Our hardware system was designed to sit on a flat roof and record an intersection from above. It was designed to operate under battery power for 12-14 hours and be reasonably weatherproofed. The components are as follows

- 5 ft. of 1 ½ inch thick PVC pipe  
<https://www.amazon.com/FORMUFIT-P112FGP-WH-5-Schedule-Furniture-Grade/dp/B00MNIXQGW/>
- DLink Weatherproof Camera  
<https://www.amazon.com/D-Link-Outdoor-Wi-Fi-Camera-DCS-2330L/dp/B00ISE2PB2/>
- 32Gb SD Card  
<https://www.amazon.com/Samsung-Select-Memory-MB-ME32DA-AM/dp/B01DOB6Y5Q/>
- Fillable umbrella base  
<https://www.amazon.com/EasyGo-Round-Umbrella-Base-Weight/dp/B01HAVHPUO/>
- ChargeTech Portable Battery  
<https://www.amazon.com/ChargeTech-Portable-27000mAh-Approved-External/dp/B0116BX968/>

The following will also be needed to assemble the setup:

- 10 inch zip ties  
<https://www.amazon.com/Ties-Strong-Tensile-Strength-Resistant/dp/B00VGYZRWK/>
- Gallon Ziploc Bags
- 1.5 inch drywall screw

A computer design of our completed model can be seen below:

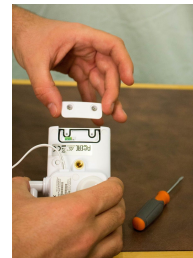
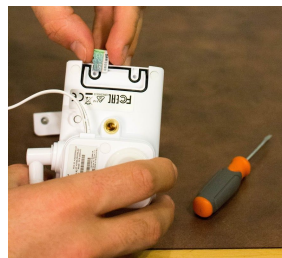


The steps for assembling the hardware setup are described below:

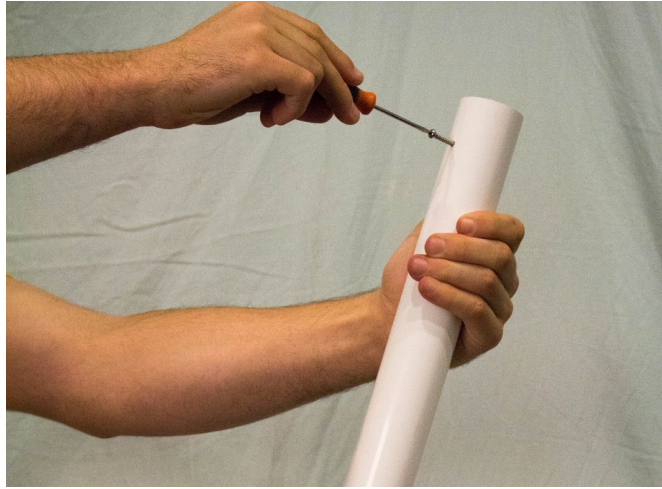
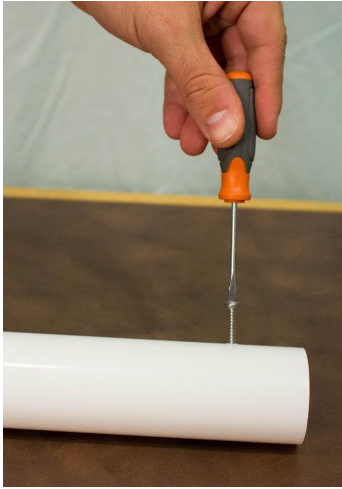
1. Charge the portable battery



2. Open the waterproof cover for the microSD card slot and insert the microSD card.



3. Using a 1.5 inch drywall screw, mount the screw 2-6 inches from the top of the PVC pipe.



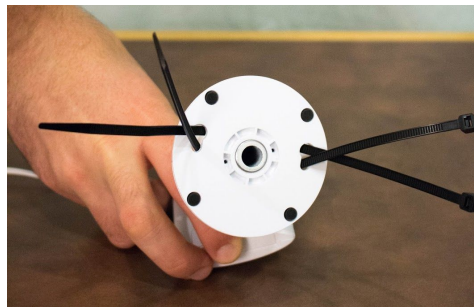
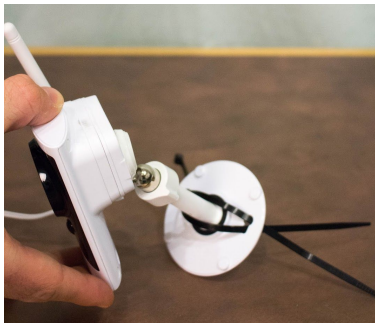
4. Ensure the screw has grabbed and will not slip out of the PVC. The screw should be mostly exposed and will be used to anchor the camera



5. Place the camera base such that the top of the screw slides inside of the opening in the base



6. Use two zip ties to fasten the camera securely to the PVC pipe



7. Place the pipe inside the base and secure to the umbrella stand using the knob



8. Setup the DLink camera to record locally using the instructions included with the camera.
9. Under settings, disable audio as it is unneeded, and enable a scheduled recording. This recording can be continuous or for certain hours of the day.



10. Plug the camera into the portable battery.



11. All ready to go! Setup the camera at the desired location and begin recording
12. After completion, take the setup down and remove the SD card.

13. Place the SD card in a computer and copy the videos on to the computer. The videos are now ready to be analyzed in SantosGUI