

HOW TO DO A PROJECTION ACTION

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**A how to guide by
Students for a FREE TIBET**

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STUDENTS FOR A FREE TIBET**

Projection actions are a creative and effective method to get people to see and think about your message. This guide will instruct you on how to use a 3500 lumen (or bigger) digital projector, with a car battery as its power source. There are other ways to supply power to a projector and we hope that you can use this guide to adapt this system to your specific situation.

If you read this guide and still need help or have questions about the projection system, feel free to contact:
Info@StudentsforaFreeTibet.org



Students for a Free Tibet, 2008
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Special thanks to Nathan Freitas

Step One: Materials List

You will need:

- One 3000 lumen projector (or bigger)
- One Car Battery
- One 600 watt AC/DC Power Inverter that has jumper cables on one end, and standard T-plug on the other.
- One Laptop or mini DVD player
- One VGA cable



Part: Projector

Note: 3500 lumens or more are recommended. The more lumens you have the brighter your projections will be. Lumens = the total power of light emitted.
Average rental cost: \$115

Part: DC to AC Power Inverter

Size: 650W - 1000W

Note: Power inverters come in a range of sizes. The more powerful your projector the more watts you will need from your inverter. Generally a 650 watt inverter can be used for a 3500 lumen projector. Power inverters can be purchased online or at auto part stores such as PepBoys.

Average Cost: \$65 - \$85

Part: Car Battery

Note: Any 12 volt car battery will power your projector. The best type of battery to use is a 12 Volt 100 Amp Deep Cycle Marine Battery however these batteries are harder to come by and are more expensive so we recommend you use a regular car battery. Car Batteries can be taken to any auto store to be recharged (usually for free). You can also charge the battery from a car. Alternitivaly you can use a gas powered generator.

Average Cost 60-\$100

Part: VGA Cable

You can get a VGA cable at any electronics store (ask for a male to male). Most projectors will come with them.

Average Cost: \$5

Part: Laptop or Mini DVD player

Note: Any laptop or mini DVD player that you can plug into your projector will work. If you're planning on using a laptop or a mini DVD player, make sure your battery is fully powered. Powering a digital projector and a laptop or mini DVD player at the same time will drain your car battery much faster. Most mini DVD players will have to be adapted with a standard RCA cable (the cable you use for a regular DVD player and a TV) to connect with your projector as they typically don't have VGA ports.

Step 2: PREPARE CONTENT

CONTENT:

If you have reached this point, you probably have a good idea of what you'd like to project on to your targeted surface. Be creative! Pictures and video are not the only images you can project. But, make sure you've considered all the variables such as amplified sound (requires a permit), weather, ambient light, etc. Whatever you project just make sure your message is short and sweet.

If you need high-resolution SFT images contact Nick@StudentsforaFreeTibet.org

CONSIDERATIONS & SUGGESTIONS:

Go Full Screen:

There is nothing hardcore or attractive about seeing part of your Windows or Mac operating systems when you're projecting. Launch your files in full screen so that your image is the only thing people see. Only remove the lens cap of the projector when your content is ready to go.



Hide Edges:

Whenever possible use a black background so that the edges your images of will blend unnoticeably into the surface you're projecting on. If you're projecting from a far distance and there is a chance that your image will be obscured by the detail on the building or surface you're projecting on, use a white background instead.

High Contrast:

Colors and grey tones often get lost in the ambient light that is common in most outdoor projection situations. To help overcome this challenge, use true white and black values (or the most basic colors) in your content as much as possible. The higher contrast your colors are the clearer they will be projected. Turning up the color saturation on your images will help their visibility also. Black and white images show up the best.

Slide Shows and Video:

A good program to use to project a slide show of images is Microsoft Power Point. We recommend any video player that will hide its logo and command options during the projection.

The Most Important Thing!

Test out your projection system and slideshow/video before you do your projection action.

Step 3: Scouting

Distance:

How far you are away from your targeted projection surface has a lot to do with how big you can get your image. At a certain distance, however, you will start to lose brightness. It's a tradeoff but usually brighter and smaller is more noticeable than big and washed out. Depending on the lighting conditions and the color of the projection surface try to position the projector between 2 - 5 traffic lanes away from your target.

Low Ambient Light:

Street lights, spotlights, illuminated advertisements; these are your enemy. Search for surfaces that are as far from light sources as possible. But in general fighting ambient light is a losing battle. Don't even bother scouting for spots in the day time as you will end up getting your heart broken when you come back at night and find that your perfect spot is ruined by a single street light.

Match Surroundings:

Good projections always fit with the building or surface they are projected on. It is important to scout the location and the surface you're using for your action before you go ahead with the projection. Keep in mind any lines, edges and curves on your surface that might obstruct your image from being clearly projected. Also keep in mind that light goes through windows; no matter how bright your projector, your image will not show on glass. It helps to design images and video that will fit on your surface. For example if you are projecting on a short and wide building make your images short and wide. Finally, make sure you have a spot to project from.

Bright Surface Color:

White surfaces will reflect much more light than dark ones. White stone, white tile and painted white walls are ideal projection surfaces. It is possible to project on darker surfaces like brick but you will need to get the projector closer to the wall and hence not be able to get your imagery as big.

Weather Conditions:

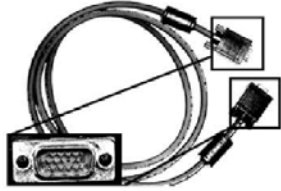
Suffice it to say the success of a projection action depends heavily on the weather conditions. Trying to project in the rain or fog is a bad idea. The ideal weather conditions for a projection action are a clear, warm, spring night. Most projectors need their lamps to stay sufficiently heated in order to work. Although projectors were not designed for outdoor use there are several things you can do to combat the cold. Covering the body of your projector (and other equipment) in a bag or attaching hand warmers to it will work but make sure there is enough insulation because projectors can also overheat.



Step 4 EQUIPMENT SET UP

Projector:

First, connect the VGA Cable to the laptop and the projector.



VGA Cable



Laptop



Projector

Inverter:

Second, plug the projector's power cable into the inverter.



Car Battery:

Third, clasp the jumper cables from the inverter onto the car battery's terminals.



FINISHED SYSTEM:

Lastly, test your system out and you're good to go!



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Legal Stuff

Because projection actions are a relatively new thing, there aren't really any clear laws prohibiting or allowing projections. Legal issues involved in projection actions vary from state to state. Usual police concerns about projection actions have to do with "harassing" the people inside the buildings which are being projected on. Therefore always try to avoid projecting into windows or other clear surfaces.



Regardless of which state (or country) you may be in, there is one universal legal consideration that projectionists should keep in mind. Consider the consequences of projecting near a major roadway or highway. The potential for traffic accidents increases dramatically when you are projecting a moving image and you can get hit with a proactive or reactive offense. Nothing need happen for highway patrol to make a big deal out of it.

The information provided here is for information purposes only and should not be relied on in determining the legality of your action. We recommend you consult legal counsel in your state and/or city to determine the potential legal consequences of any and all proposed action(s). A lot will depend on what state you live in and the specific location of your projection (private versus public property for example).

MAKE SURE TO

Send photos of your projection actions to Info@StudentsforaFreeTibet.org

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GOOD LUCK!