

# PROJECTORS

Technology Directorate, Monta Vista FBLA

## SETTING UP A PROJECTOR WITH YOUR COMPUTER

The projector is connected to your computer via a **VGA** cable.

Plug one end of the VGA cable into the matching input of your projector – this will be labeled either **Video In**, **VGA In**, **Computer In**, **Input 1**, or **Computer 1**.



Plug the other end of the cable into the matching output of your computer – this will be labeled either **Video Out** or **VGA out**, although sometimes there may be no label.



If no image is showing up, verify that the projector is turned on, and that it is set to the proper input (if you are plugged into **Computer 1**, make sure the projector is set to **Computer 1**). If the image still does not display, push the appropriate FN combination on your computer. The proper button to press would be labeled with a video output icon (see figure on right).



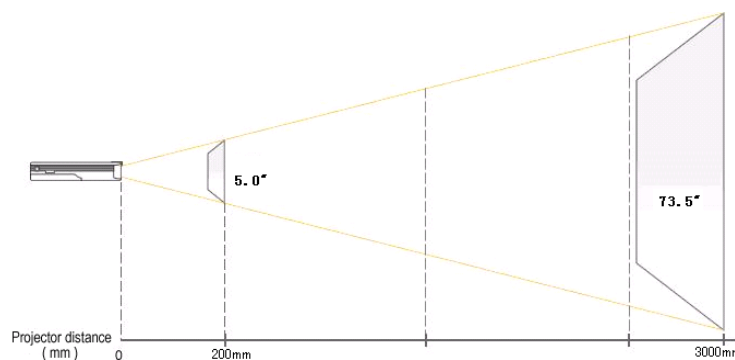
If the image still does not display, you may now contact tech support.

## OPERATING A PROJECTOR

Operating a projector is a very straightforward process. By now you should have an image (or a stream of photons at least) coming out of the lens of your projector. The first step is to make sure that the image is of the proper size and focus.

### ADJUSTING IMAGE SIZE

Most projectors will have two dials on the lens – one of these will adjust the size, and the other will adjust focus. Find which one will adjust size and you may now adjust it.



If you find that your projector's dial does not adjust the image to a satisfactory size, moving the projector may rectify the problem. The closer a projector is to the viewing surface, the smaller the image will appear, and vice-versa.

### ADJUSTING IMAGE FOCUS

The focus will determine whether your image is blurry or not. The focus is determined by the bending of light on a spherical or parabolic lens – if you want to know how focus works, consult a physics textbook.

The dial that does not control size will control focus. Adjust the focus until the image displayed is the most crisp and sharp that it can be. Some projectors may not display a “perfect” image so choose the best setting.

## THE LIGHT COMING OUT OF THE LENS

Don't look into it.

### TILT

Sometimes the image projected onto the viewing surface may not be a perfect rectangle. To rectify this issue, you may use a book or other similar object to prop the back end of the projector up.

By propping the back of the projector up, you will be modifying the way the image strikes the viewing surface. The image comes out of the lens as a perfect rectangle – it is desirable for

the image to hit the viewing surface at a 90 degree angle such that the viewing surface is perpendicular to the photons that come out of the lens. An angle greater than 90 degrees will result in distortion of the image so that the images “bends in” as it approaches the bottom of the screen.

