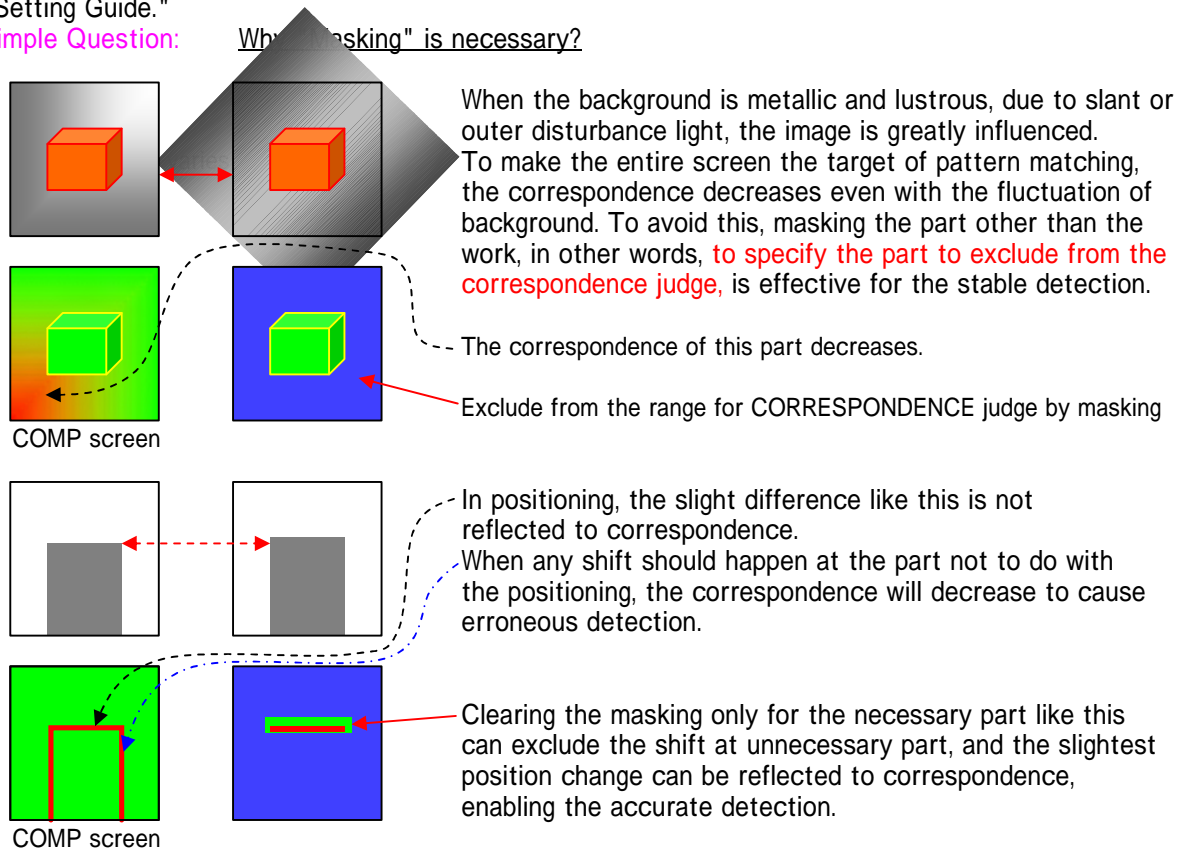


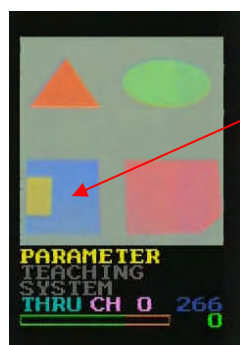
## To be a "Masking Expert"

The feature unique and important to CVS2 is Masking (MASK EDITOR). It might be a little complicated, but learn MASK EDITOR to access masking such as in the "Setting Guide."

**Simple Question:** Why "masking" is necessary?



## PRACITCE Masking practice using the sample works



[Display the sample work image of the Instruction Manual.](#)

Increase **DARK CMP** or **SHUTTER** setting values so that this blue color is brighter. (This is not directly to do with masking, but makes the work as the same with this sample.)

[Register \(write\) the image screen.](#)



Register this screen.

Perform **SAVE PATTERN** (Pattern Registration) in the teaching menu. At this state, press **[SET]** for more than 3 seconds.



During the writing process, the characters **SAVE PATTERN** is displayed red. When this turns to yellow, the process is completed.



The blue part is the masking area.  
(At initial state, the screen surroundings are masked.)

Select the masking (**MASK EDITOR**) and press **[SET]** for more than 3 seconds.



[Set/clear the masking according to the work shape.](#)

First, clear the red triangular shape, at the upper left only.

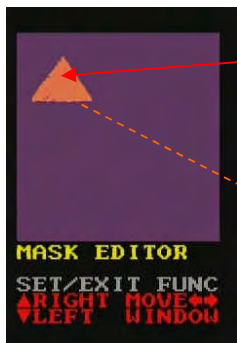
Keep pressing **[UP]** to move the mask window to here.

Currently **[UP][DOWN]** is selecting the function to move the mask window (red semi-transparent) vertically.  
(When the other items are displayed, press **[SET]** or **[EXIT]** to make the display as this.)



Press **[SET]** to switch the function to the one to move the mask window laterally.

Keep pressing **[DOWN]** to move the mask window here.

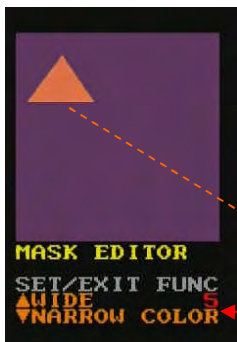


Moving the mask window to the red triangle, makes the display only with the red color, and all the other part will be displayed purple.

Looking more carefully, however, the red triangle is not fully displayed, but a thin purple is left partially.



This is the display example for the case when the color is not fully selected.



To solve the problem, press **[SET]** three times to make the display like this. This is the function to adjust the selected color width.

Pressing **[UP]** widens the color width, whereas pressing **[DOWN]** narrows the color width.

Press **[UP]** to increase the setting value (approx. 5) to allow the red triangle to be displayed clearly.

**Point**

Setting the color width too large selects the colors at unnecessary part.





Press [SET] to make the display like this.  
 This is the function to add/clear the selected color area (displayed as purple) to mask. Press [UP] to add the purple area to the mask, or clear it by [DOWN].



In this example, press [DOWN] to clear the masking under the red triangle. Then, the masking at red triangle (blue semi-transparent part) is cleared.



Press [SET] to make the display like this.  
 This is the function to add/clear the area other than the selected color (displayed as purple) to the masking.  
 Press [UP] to add the purple area to the mask, or clear it by [DOWN].

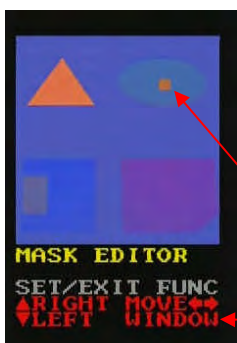


In this example, press [UP] to mask all the part other than the red triangle. Then, the part other than the red triangle, is masked (displayed as blue semi-transparent).

**HELP info:**

Pressing [SET] for three seconds to register the image can restore the image when the mask area is deleted without unsaved.  
 To complete the masking without saving, press [EXIT] for more than three seconds.

Add the area to clear the mask.



Clear the mask according to the green oval shape at the upper right of screen. The red triangle is kept left.

Press [SET] four times to make the display like this.

Move the mask window here.



Moving the mask window to green oval, only the green color area is displayed and all the other part will be displayed purple.

Looking more carefully, however, the color is displayed also at the lower left of screen. The color is displayed as thin green line, mixed with the part including adjacent yellow and blue.

Leave this area so that it is deleted by adding mask later, and now start from mask clearing for the green oval area.



Press [SET] four times to make the display like this.

This is the function to add/clear the selected color area (displayed as purple) to the mask. Press [UP] to add the purple area to the mask, or clear it by [DOWN].



In this example, press [DOWN] to clear the masking at green oval area.

Now the red triangle and green oval are completed with mask clearing.

Yet the lower left part is slightly processed with mask clearing.



[Add the mask to a square part in the mask window.](#)

Apply masking to the thin mask clear part at the lower left of screen, of course, with the red triangle and green oval left as they are.

Press [SET] three times to make the display like this.

Move the mask window here.



Press [SET] to switch to the function to magnify the mask window laterally.

Keep pressing [DOWN] to move the mask window here.



Press [SET] to switch to the function to magnify the mask window vertically.

Keep pressing [UP] to enlarge the mask window up to this size.



Press [SET] to switch to the function to magnify the mask window laterally.

Keep pressing [UP] to enlarge the mask window up to this size.



Press [SET] four times to switch to the function to add/clear the mask to the square part of mask window.

Pressing [UP] adds the mask to the square part of mask window.

Pressing [DOWN] clears the mask to the square part of mask window.

In this example, press [UP] to mask thin strings left after the mask clearing.



Now the area is completed with the masking.

When the masking is OK, press [SET] for more than three seconds to save the result.



In returning to the teaching menu, the masked area is displayed blue.

The masking process introduced here is recommended for:

- Orientation judge
- Detection of color unevenness or color shift on the work surface
- LED lit confirmation



### Masking for positioning

Let us perform the masking for the blue work positioning at the lower left of screen.

Select the masking (**MASK EDITOR**) again, press **[SET]** for more than three seconds, and perform the masking.

Press **[SET]** three times to switch to the function magnifying the mask window laterally.

Keep pressing **[DOWN]** to move the mask window here.



Press **[SET]** to switch to the function magnifying the mask window vertically.

Keep pressing **[UP]** to enlarge the mask window up to this size (up to the blue work height).



Press **[SET]** to switch the function magnifying the mask window horizontally.

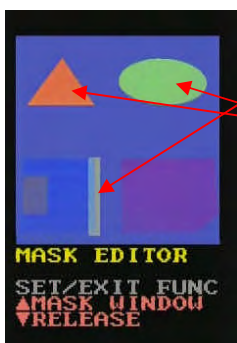
Keep pressing **[DOWN]** to narrow the mask window up to this size.

The narrower the window becomes, the larger the correspondence variation for a shifted position becomes.



Press **[SET]** four times to switch to the mask adding/releasing function applying to square in mask window.

The mask release is applied to the square part of the mask window here; press **[DOWN]**.



The mask is cleared in this way.

The upper part is not necessary for positioning, so the masking is to be added.



Press [SET] to switch to the function to add/clear the mask for the area other than the square in the mask window.

Here the masking is to be added to the area other than the square in the mask window. To perform this, press [UP].



The mask is added in this way.

Now only this area becomes the target of comparison.

When the masked area is OK as this, save the setting by pressing [SET] for more than 3 seconds.



In the teaching menu, the masked area is displayed in blue.





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