

Concept Question 10-7: What is the general concept behind edge detection?

Applying localized highpass 2-D filters (differences in the horizontal direction and then the vertical direction) and thresholding the square root of the sum of squares of the results creates an image of edges. This is the Sobel edge detector; the Canny edge detector includes the Sobel edge detector, but adds additional features. See Section 10-6.3.