Circle Hough Transform

- Find circles of fixed radius $r$

- Equivalent to convolution (template matching) with a circle
Circle Hough Transform for unknown radius

- 3-d Hough transform for parameters \((x_0, y_0, r)\)
- 2-d Hough transform aided by edge orientation \(\Rightarrow\) “spokes” in parameter space

![Diagram of Circle Hough Transform](image_url)
Example: circle detection by Hough transform

Original coins image

Prewitt edge detection

Detected circles