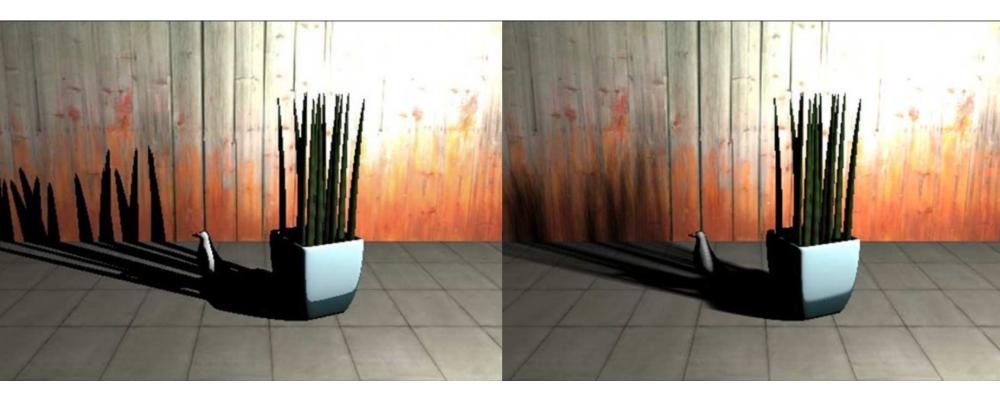
"Hard" Shadows

Basic ray tracers use single light-point sources
These can produce naive and unrealistic results...



Soft Shadows

Previously we assumed lights were a single point The problem is that real lights have "size" and so cast rays from multiple points

ShadowCaster

Some parts of the shadow get no light at all Other parts get a few rays (so are in semi-shadow) How might we implement this ?

Soft Shadows: Multiple Light-points

Model the light as a cluster of single light-points When shading a pixel for shadow...

Shoot "shadow rays" towards each light point

Combine the results when deciding how dark the shadow should be

Clearly this will be costly!