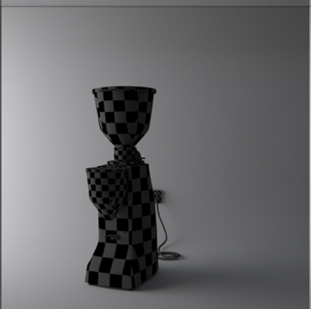Weight: 1.000
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Fresnel affects Diffuse: off

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Backlighting: 0.000
Fresnel affects Diffuse: off

Weight: 0.700
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Backlighting: 0.000
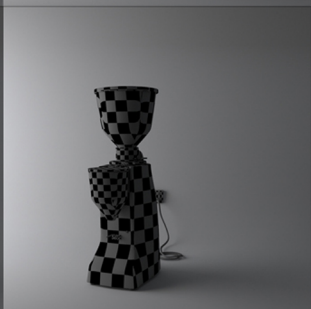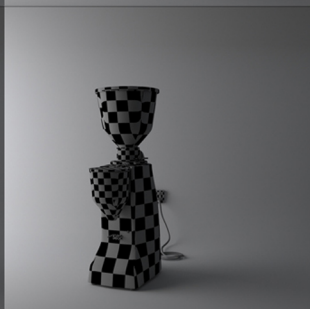Fresnel affects Diffuse: off

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Fresnel affects Diffuse: off

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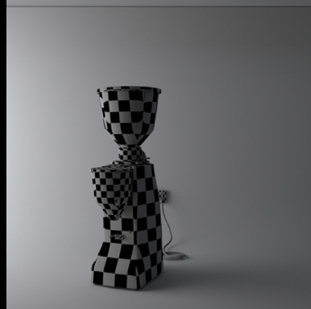Fresnel affects Diffuse: off

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Fresnel affects Diffuse: off

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Fresnel affects Diffuse: off

Weight: 0.000
Roughness: 0.000
Backlighting: 0.000
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.000
Backlighting: 0.000
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.200
Backlighting: 0.000
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.300
Backlighting: 0.000
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.400
Backlighting: 0.000
Fresnel affects Diffuse: off

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Backlighting: 0.000
Fresnel affects Diffuse: off

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Roughness: 0.600
Backlighting: 0.000
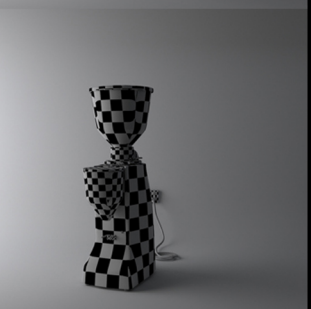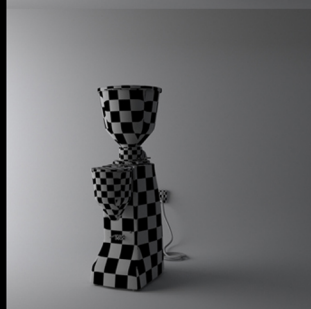Fresnel affects Diffuse: off

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Fresnel affects Diffuse: off

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Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.900
Backlighting: 0.000
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 1.000
Backlighting: 0.000
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.000
Backlighting: 0.000
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.000
Backlighting: 0.200
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.000
Backlighting: 0.300
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.000
Backlighting: 0.400
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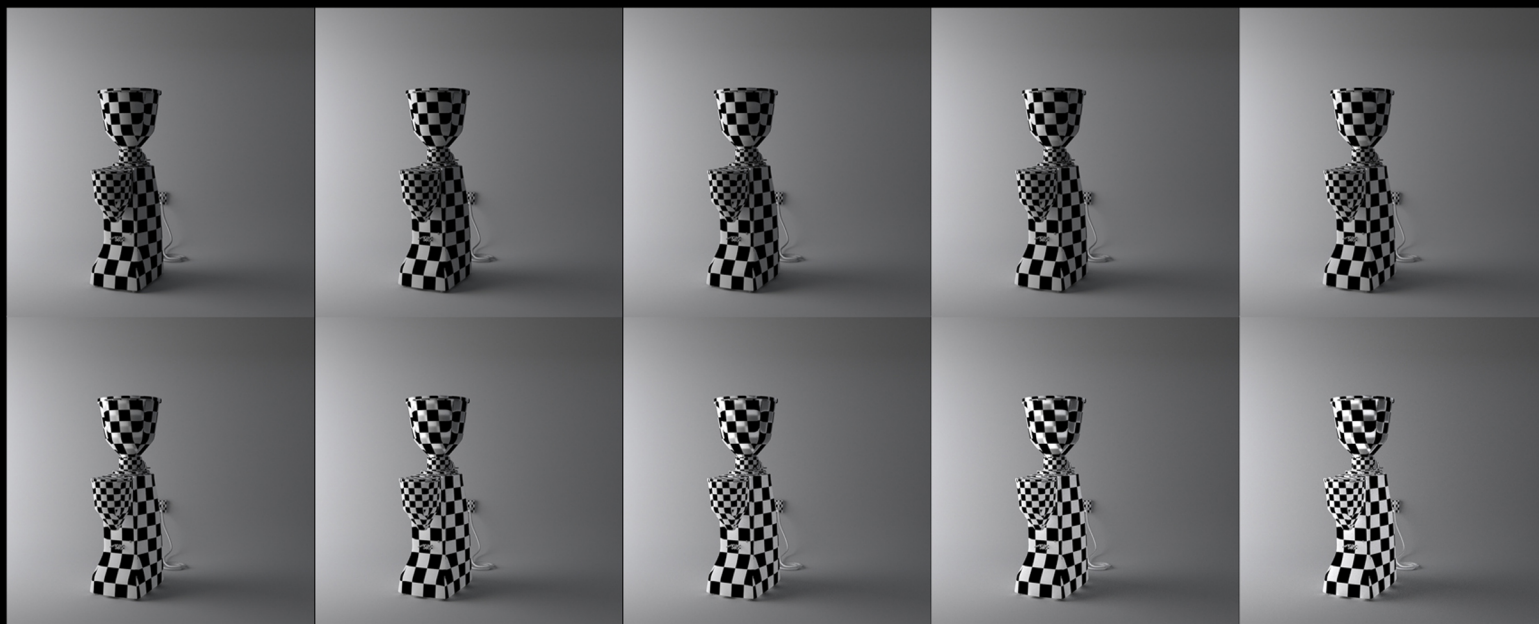Backlighting: 0.600
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Weight: 1.000
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Fresnel affects Diffuse: off

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Fresnel affects Diffuse: off

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Roughness: 0.000
Backlighting: 0.900
Fresnel affects Diffuse: off

Weight: 1.000
Roughness: 0.000
Backlighting: 1.000
Fresnel affects Diffuse: off

$$L_o = L_e + \int_\Omega L_i \cdot f_r \cdot \cos\theta \cdot d\omega$$

Study results:

Weight:

Weight appeared to be the main contributor of substance to the diffuse aspect of this shader. It primarily effects what is seen in terms of the diffuse of a material in any given render, Studying this attribute via a series of test renders I've noticed that the main decreasing the weight factor by 0.100 in 10 iterations led to a shadeless, black outline of my object.
This example is using a 3 point studio lighting set-up in maya 2013.

Roughness:

This attribute apears to govern the amount of light that passes over an object. From what I have seen in my studies via these test renders, When raising the roughness in iterations of 0.100 I have observed a substantial drop in the lights gradient over the object less apparent, giving the object a 'flatter' less realistic feel to it, which I personally do not like.
This example is using a 3 point studio lighting set-up in maya 2013.

BackLighting:

The Back lighting attribute seemed to effect areas of the object with a higher amount of shadow, brightening these less well lit areas, making them easier to see. I raised the back lighting attribute in iterations of 0.100 each time and found that the darker areas of an object will because more lit, as the attribute suggests. I think it's pretty useful when rendering but it must be used subtly. Although this attribute does however cause issues with objects with multiple faces when taken to an extreme. I noticed this occuring in the hopper at the top of the coffee grinder,
This example is using a 3 point studio lighting set-up in maya 2013.