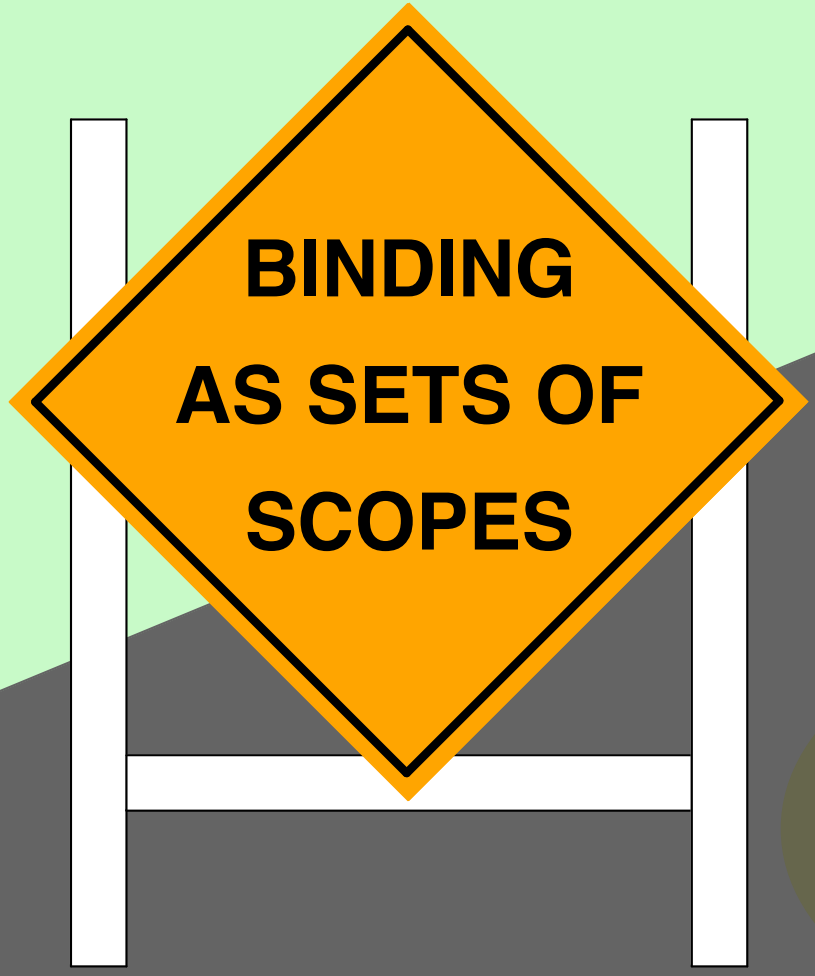
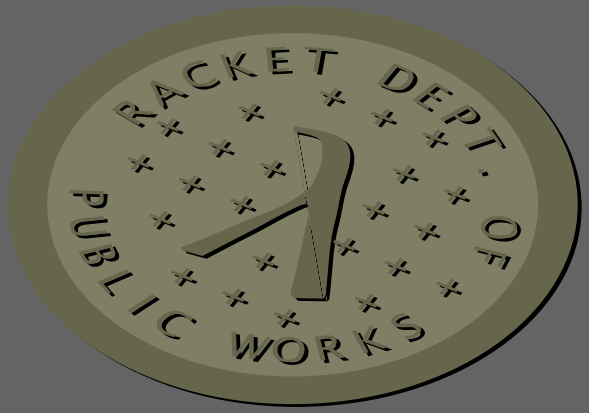
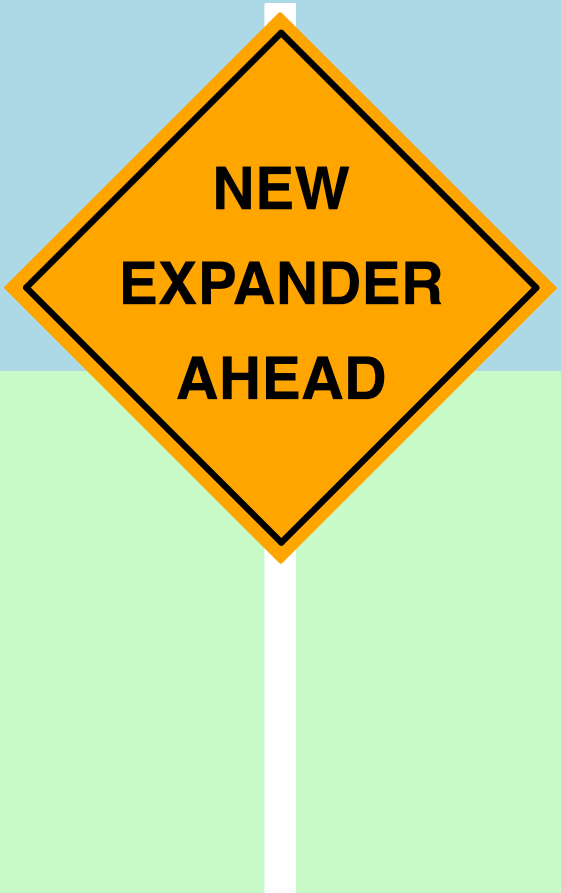


# BINDING AS SETS OF SCOPES




NEW
EXPANDER
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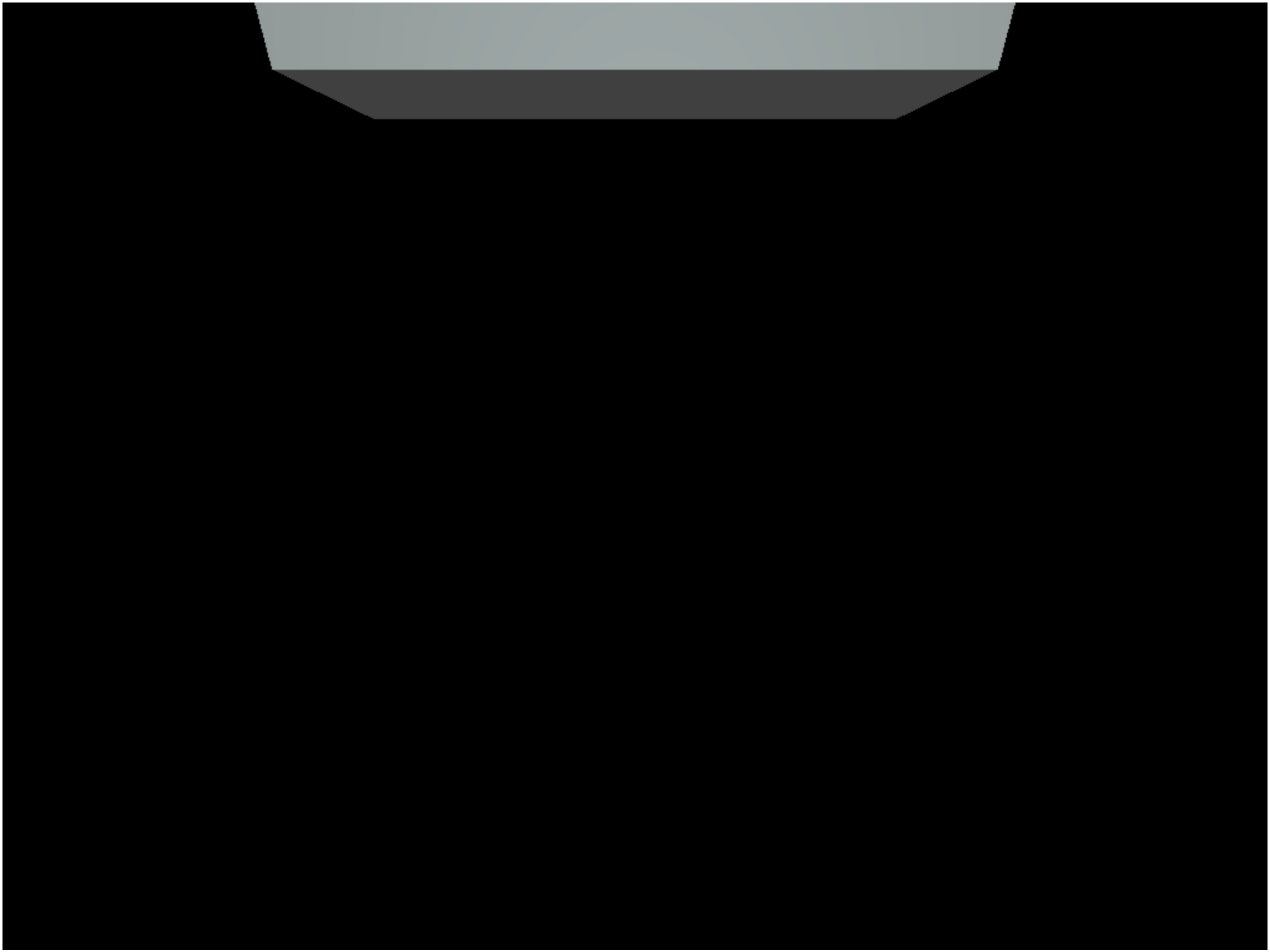

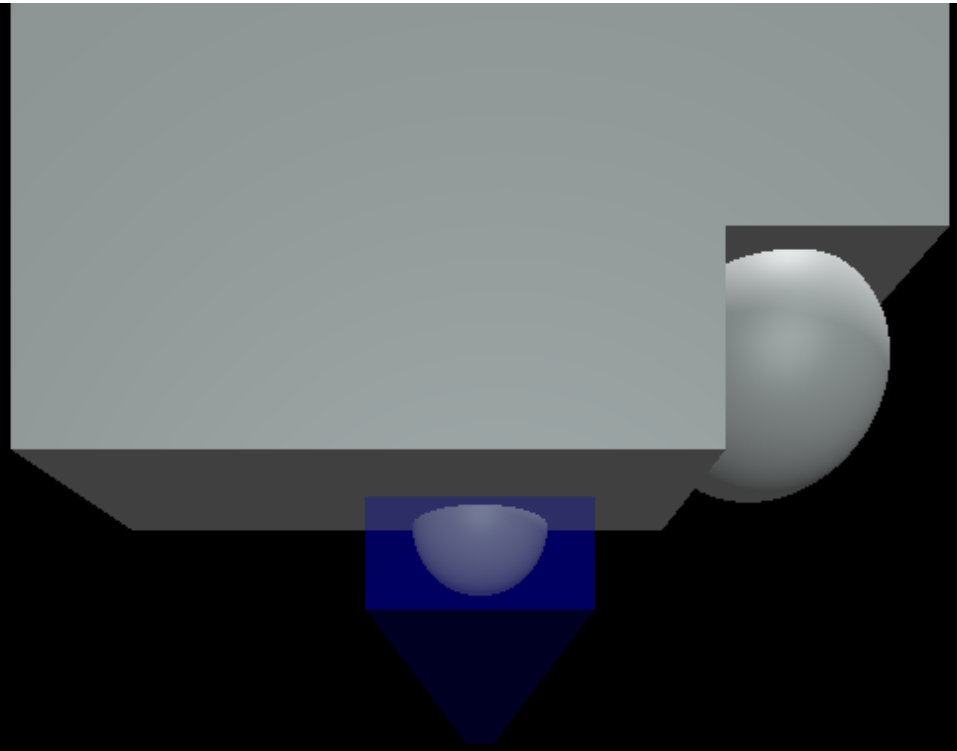

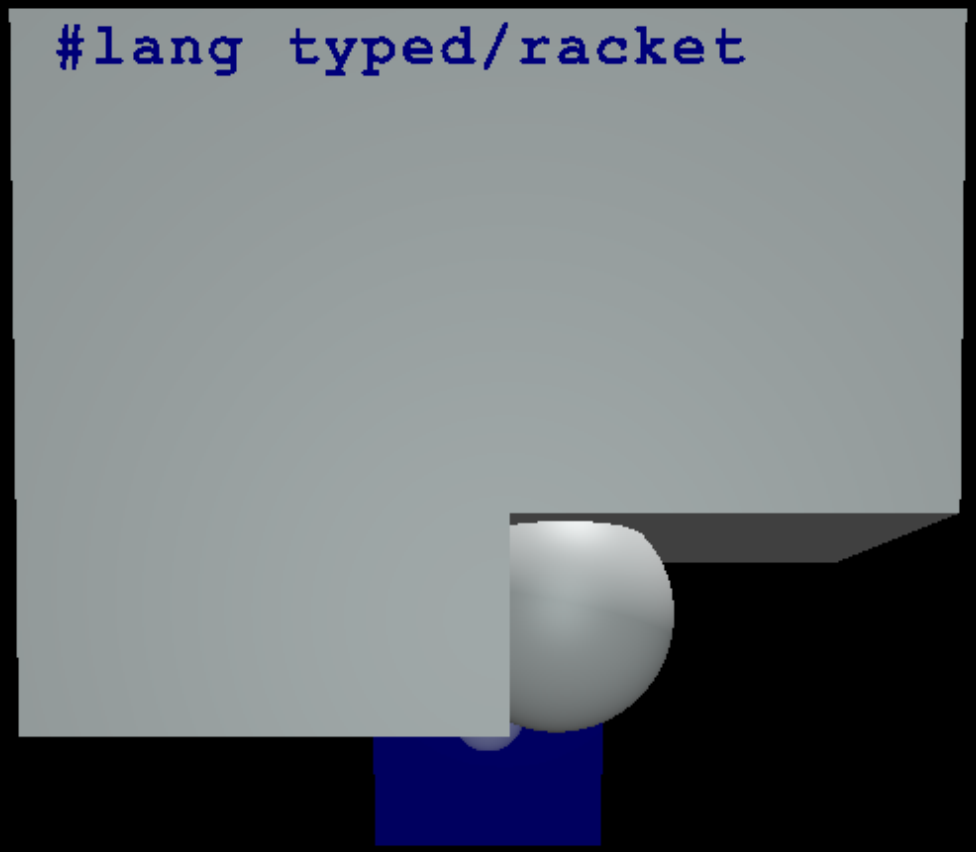
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#lang typed/racket
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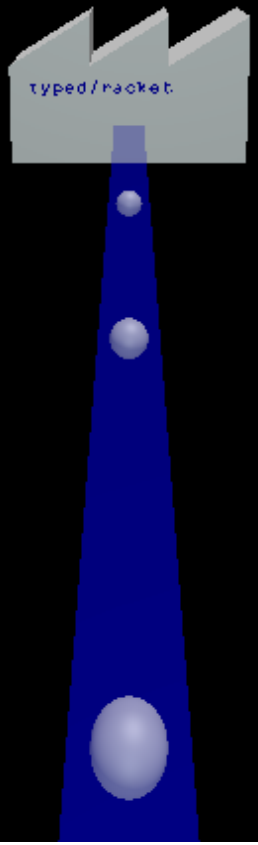
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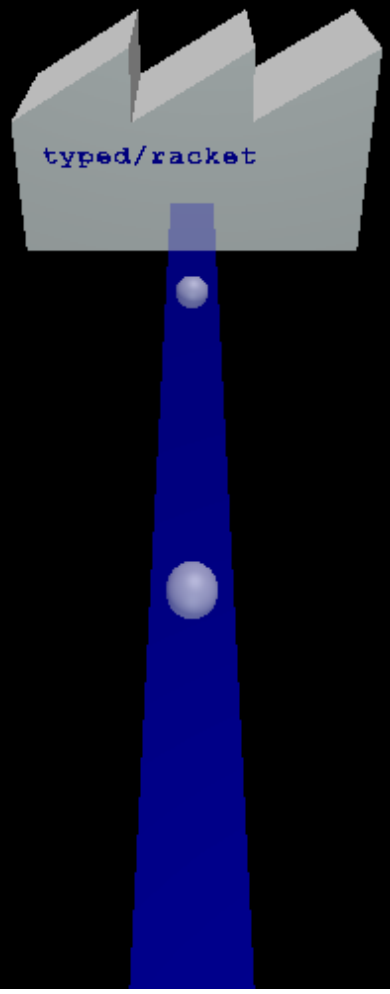
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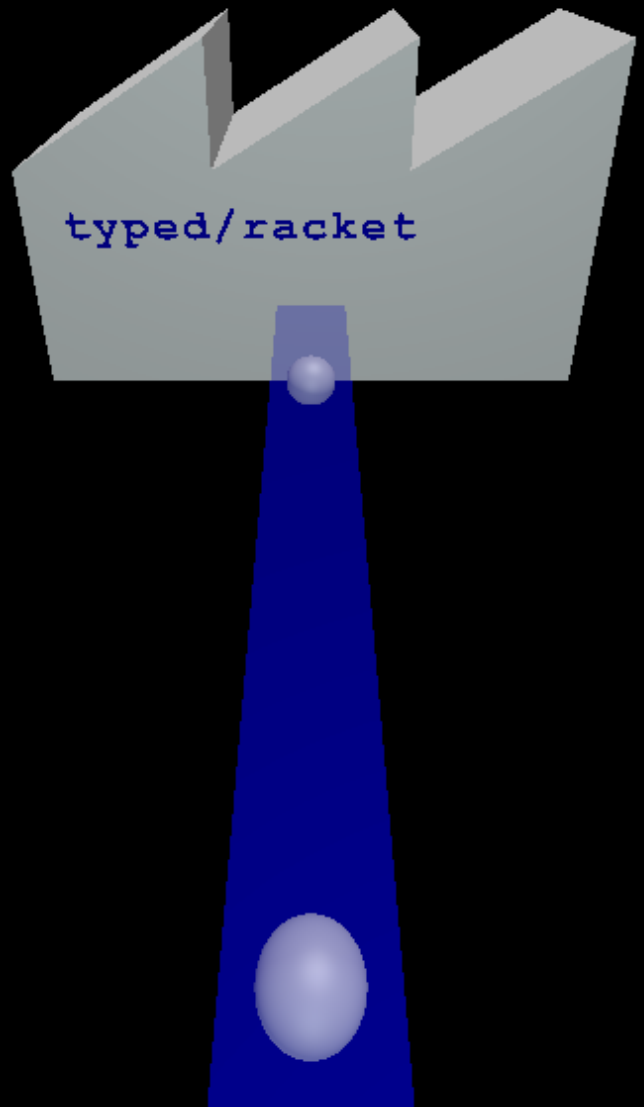
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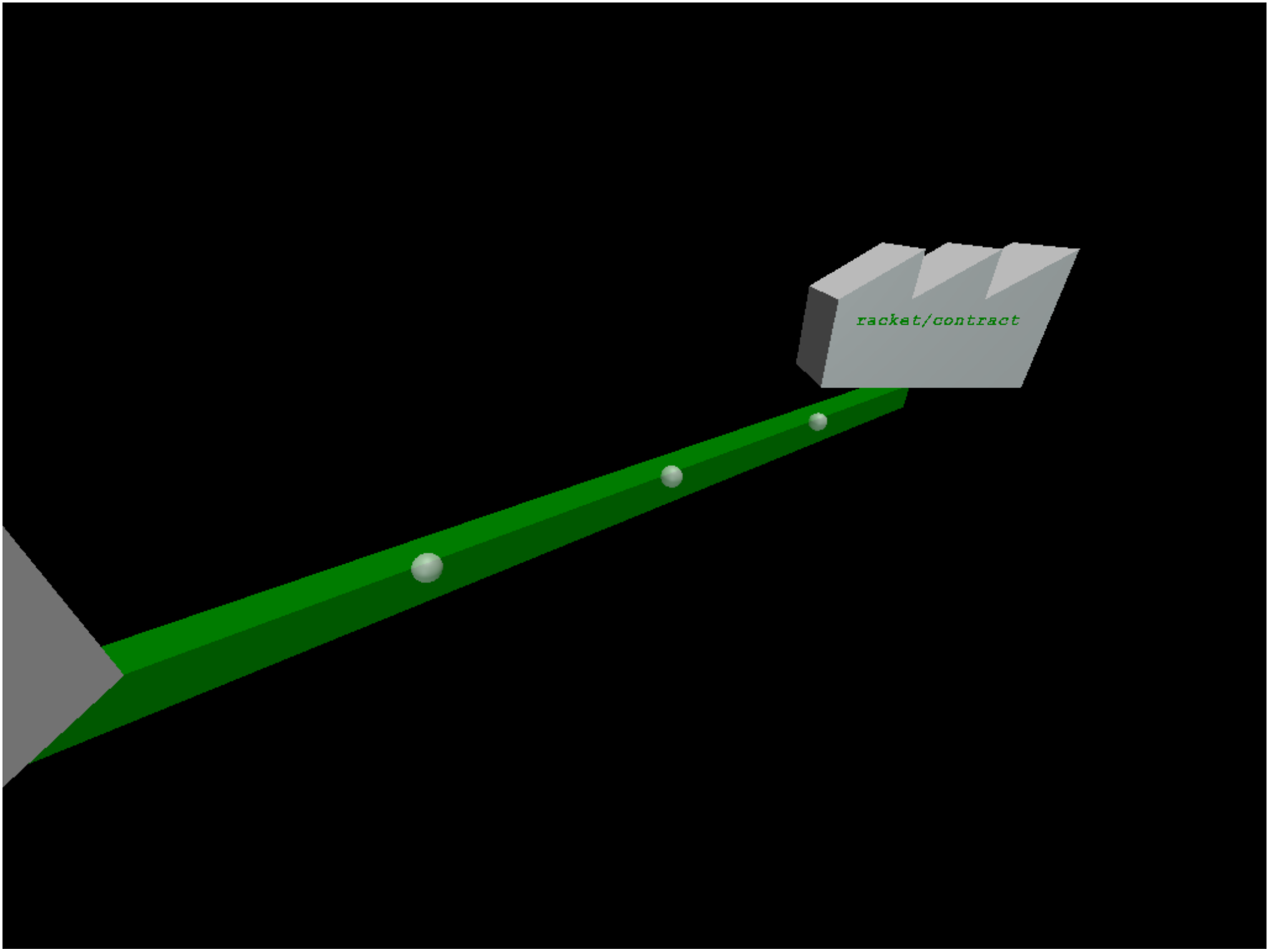
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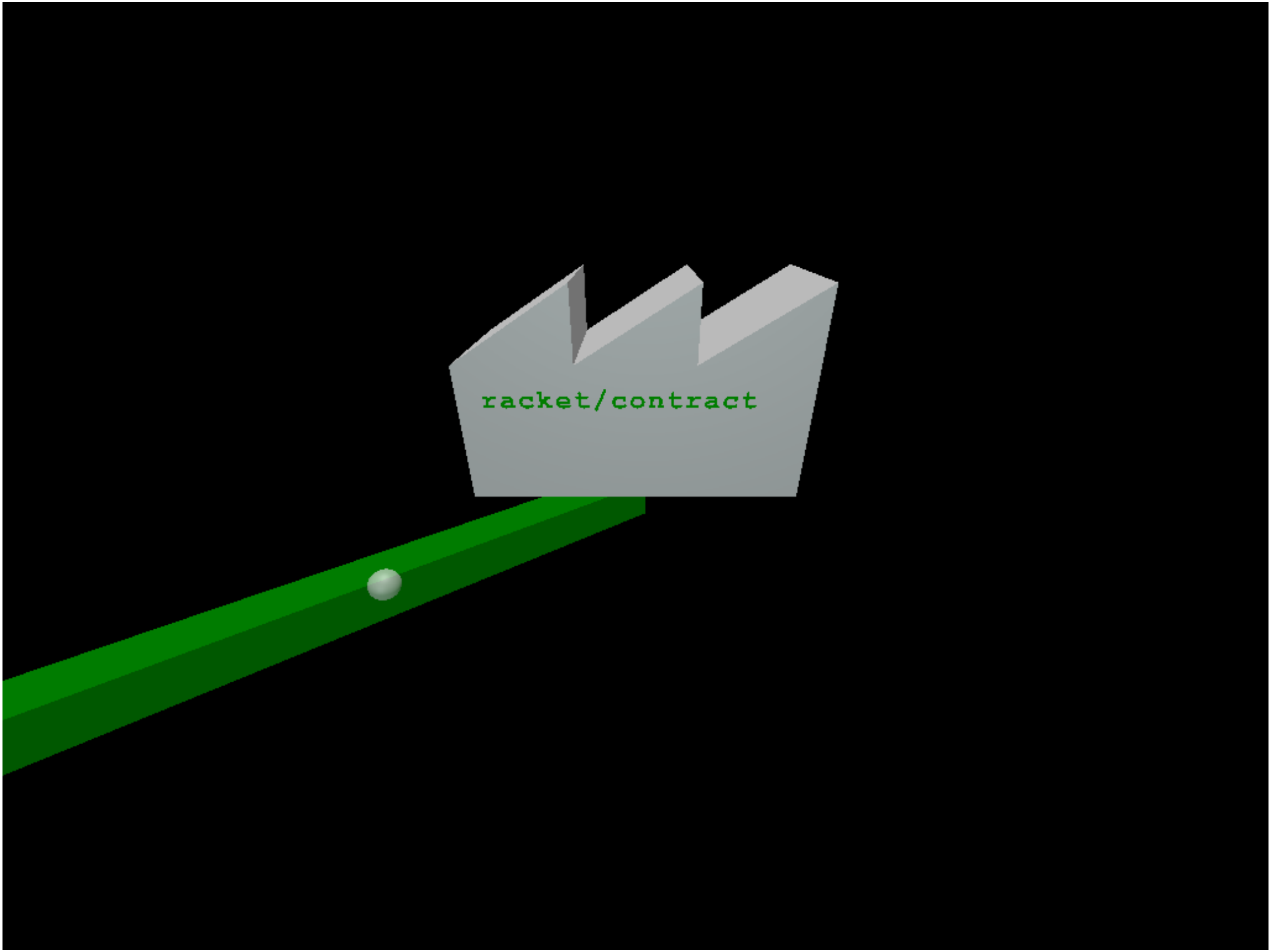
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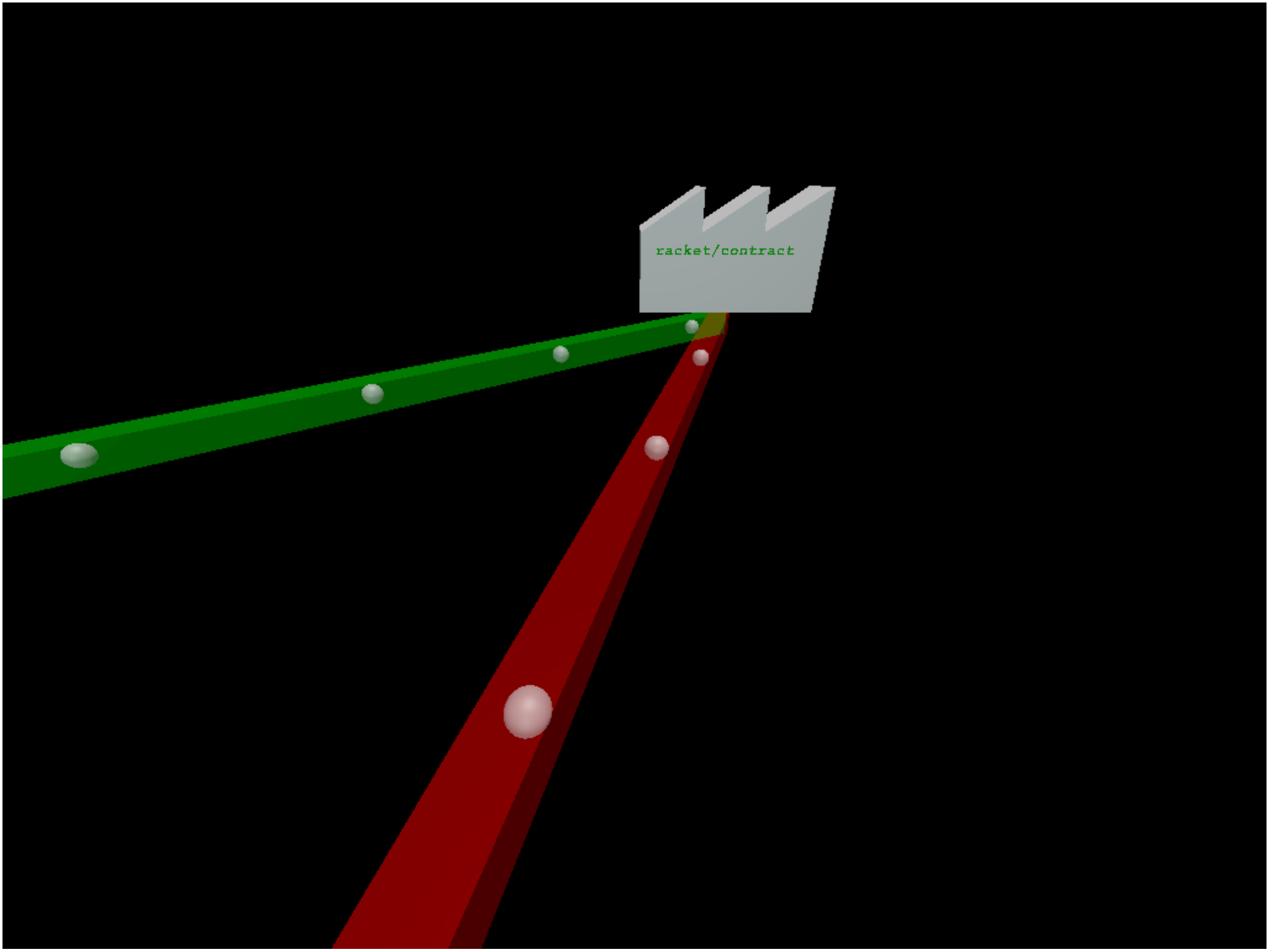
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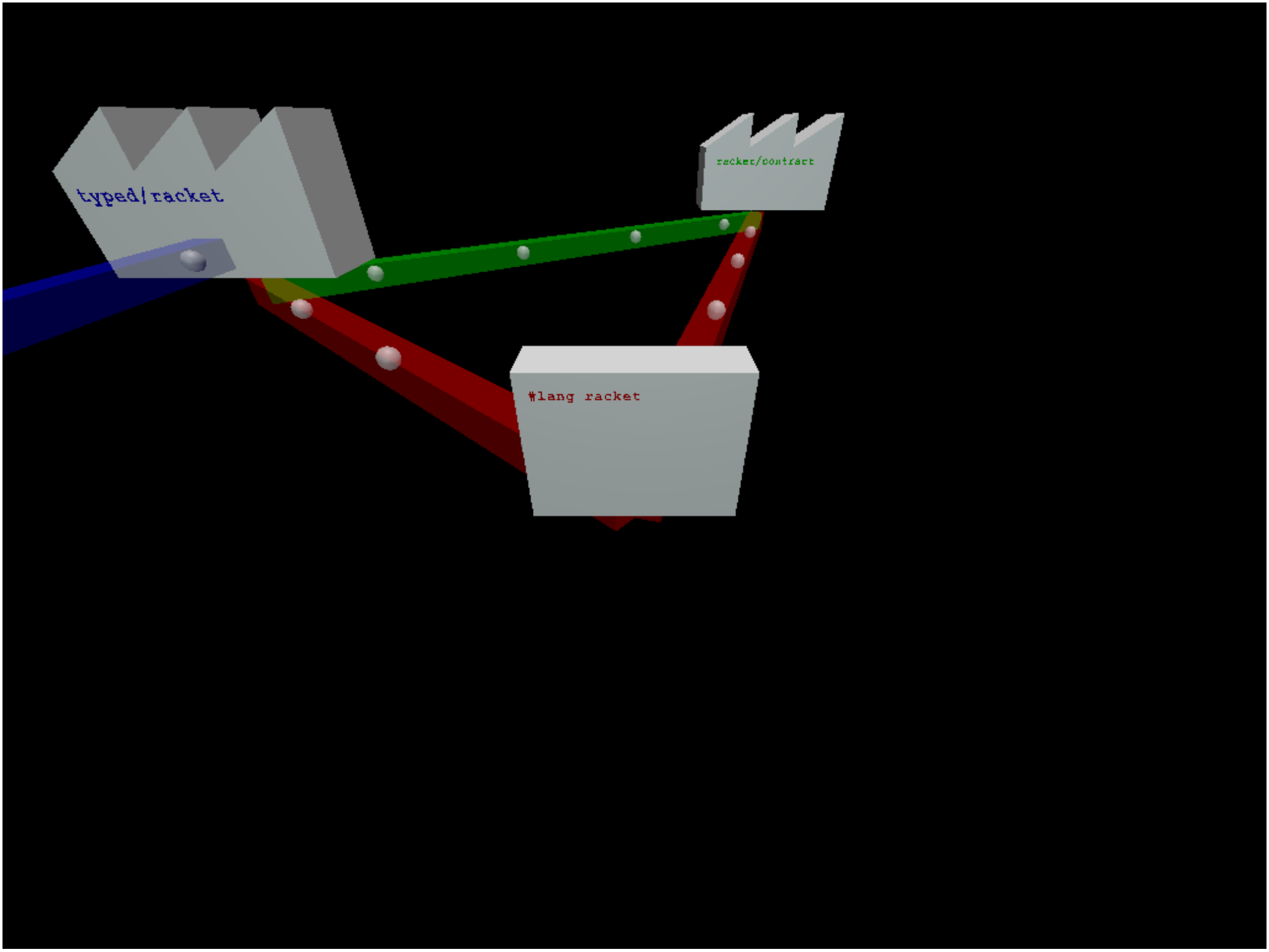
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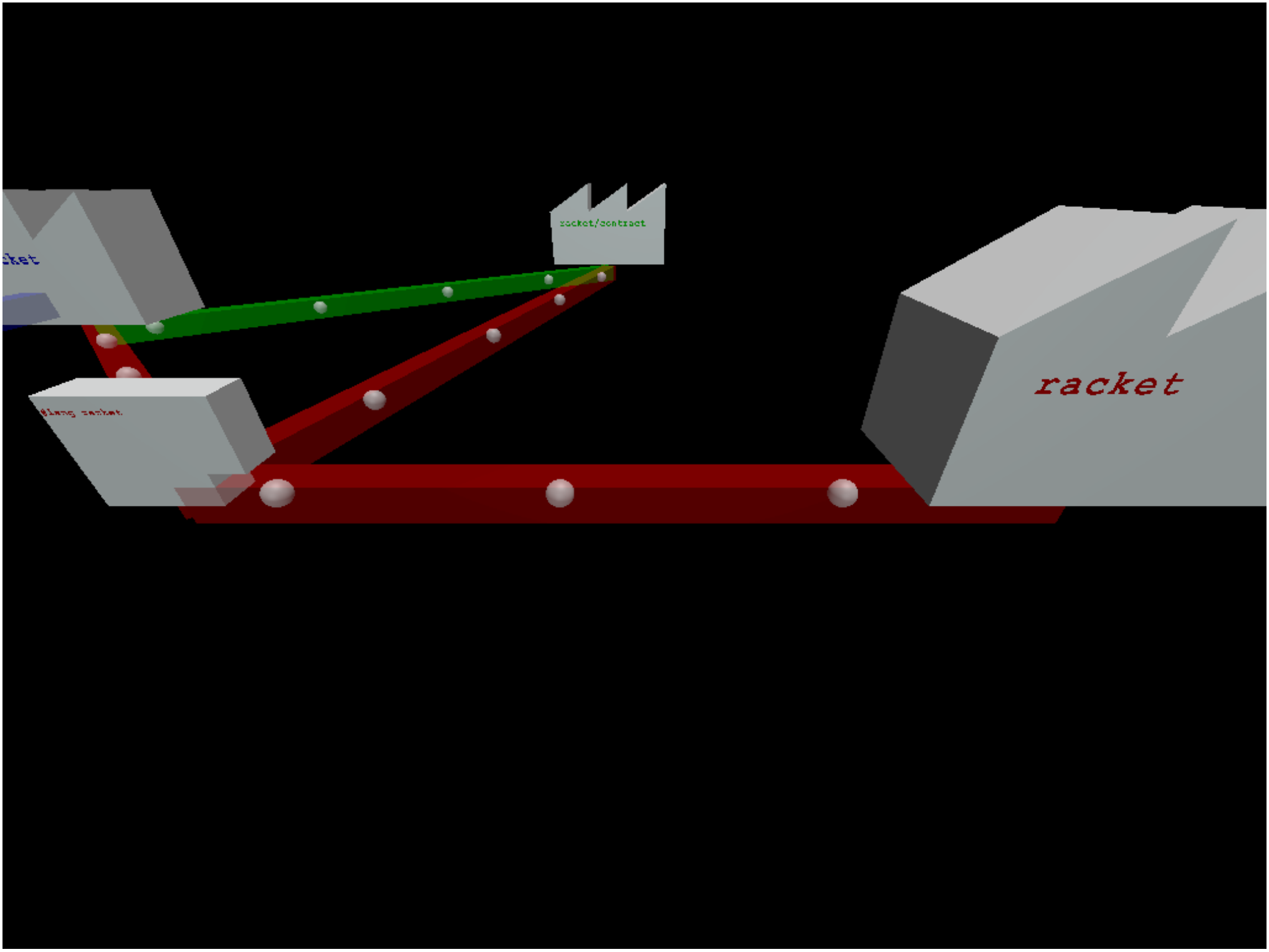
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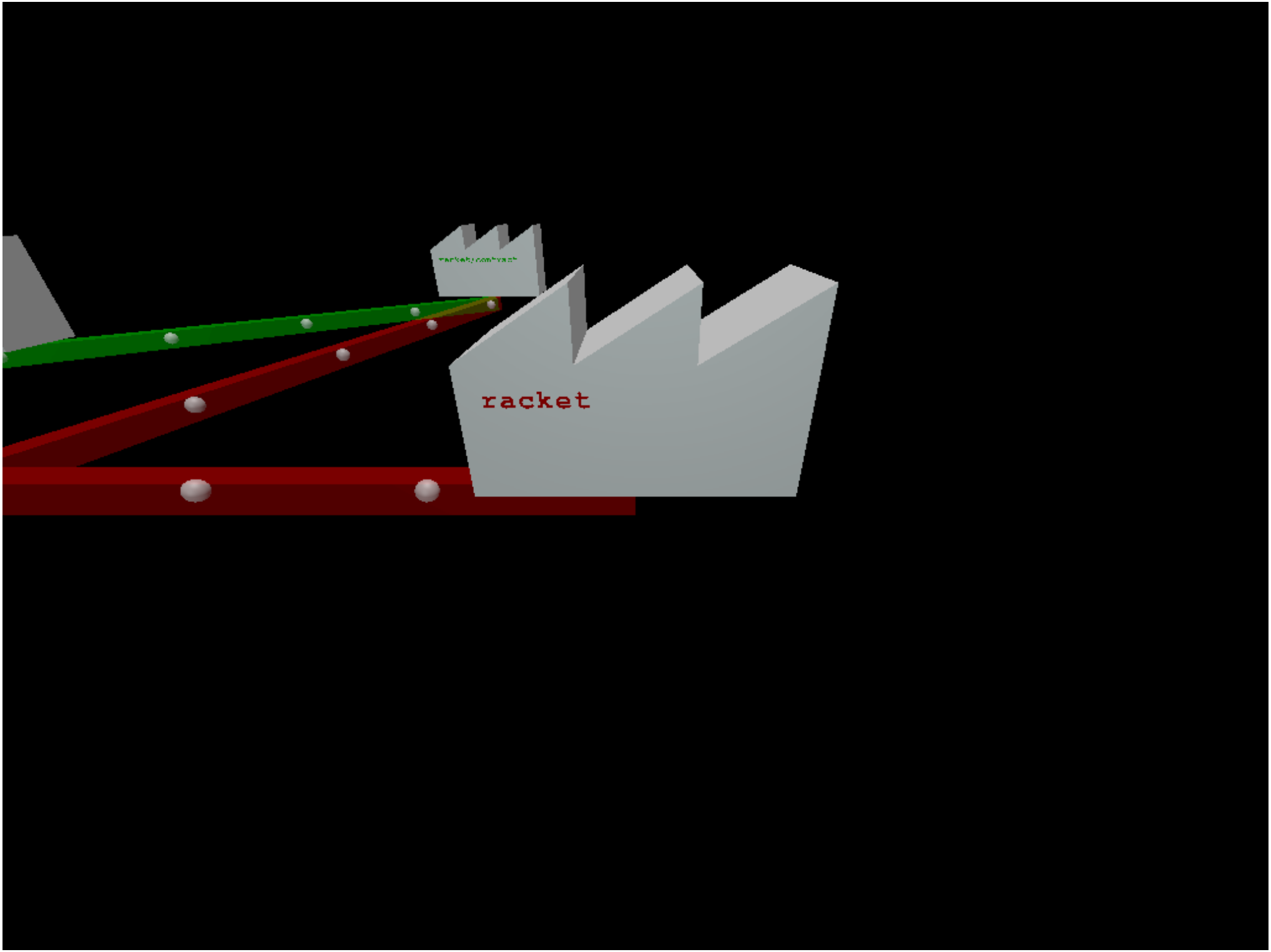
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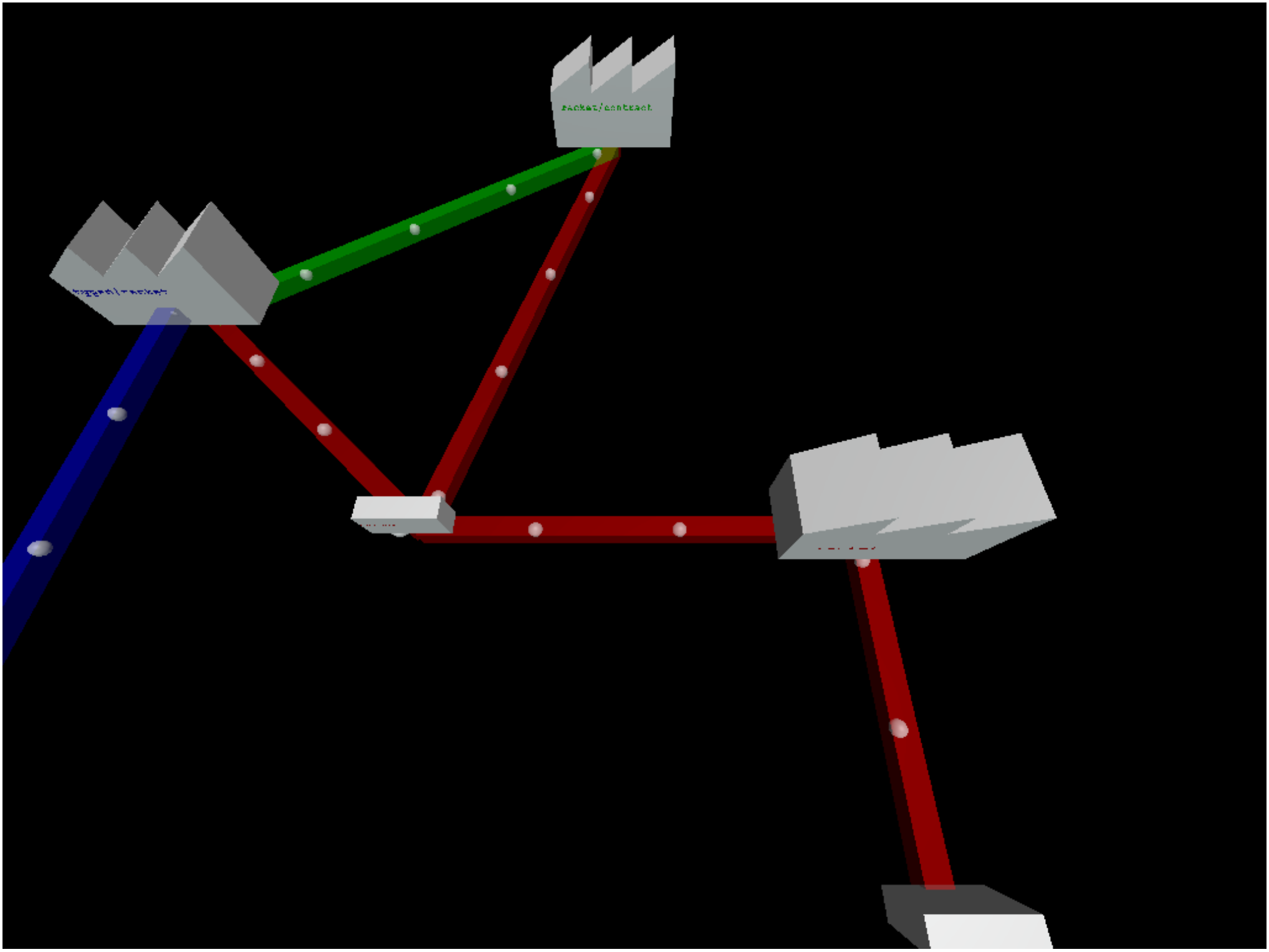
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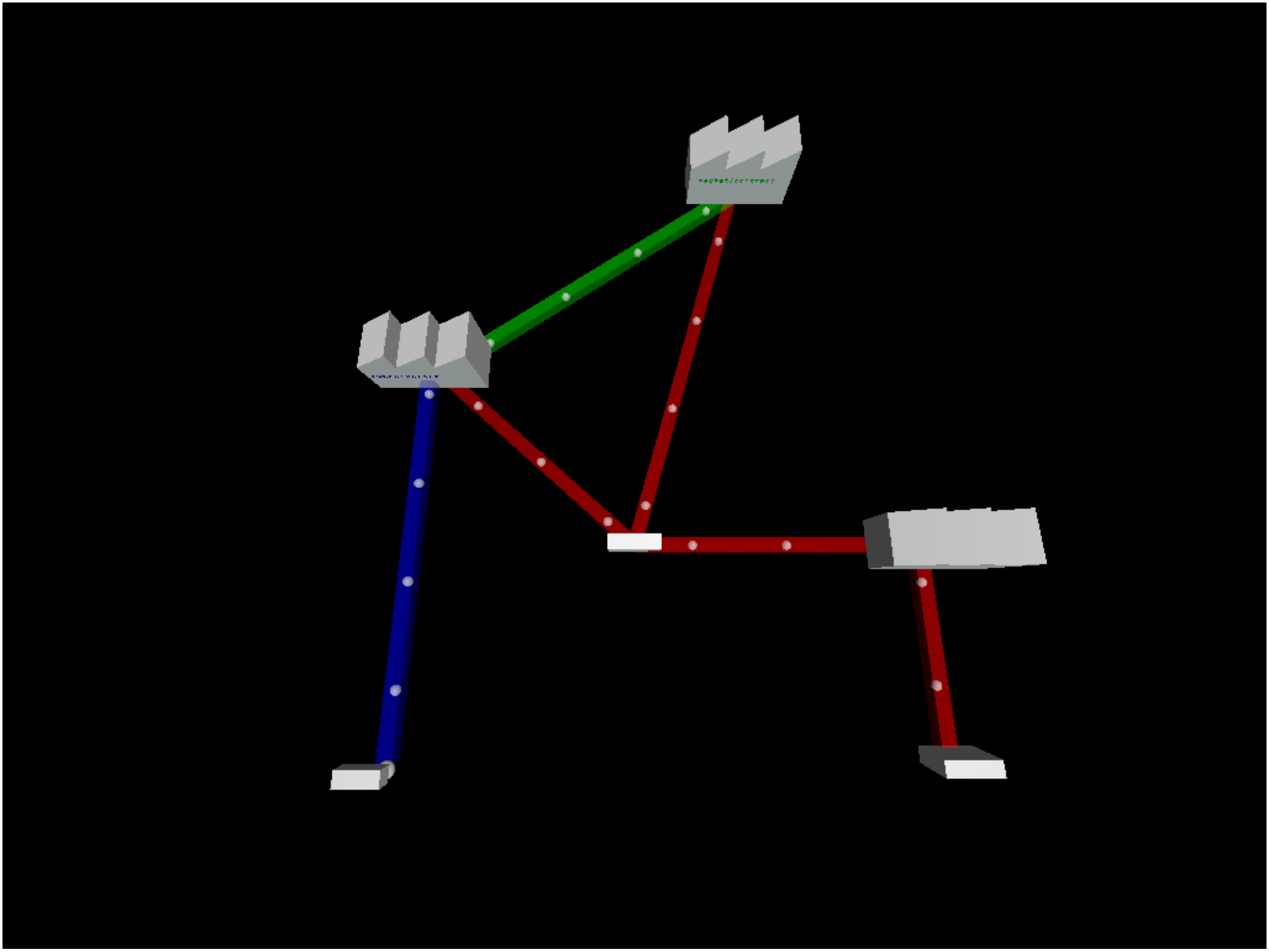

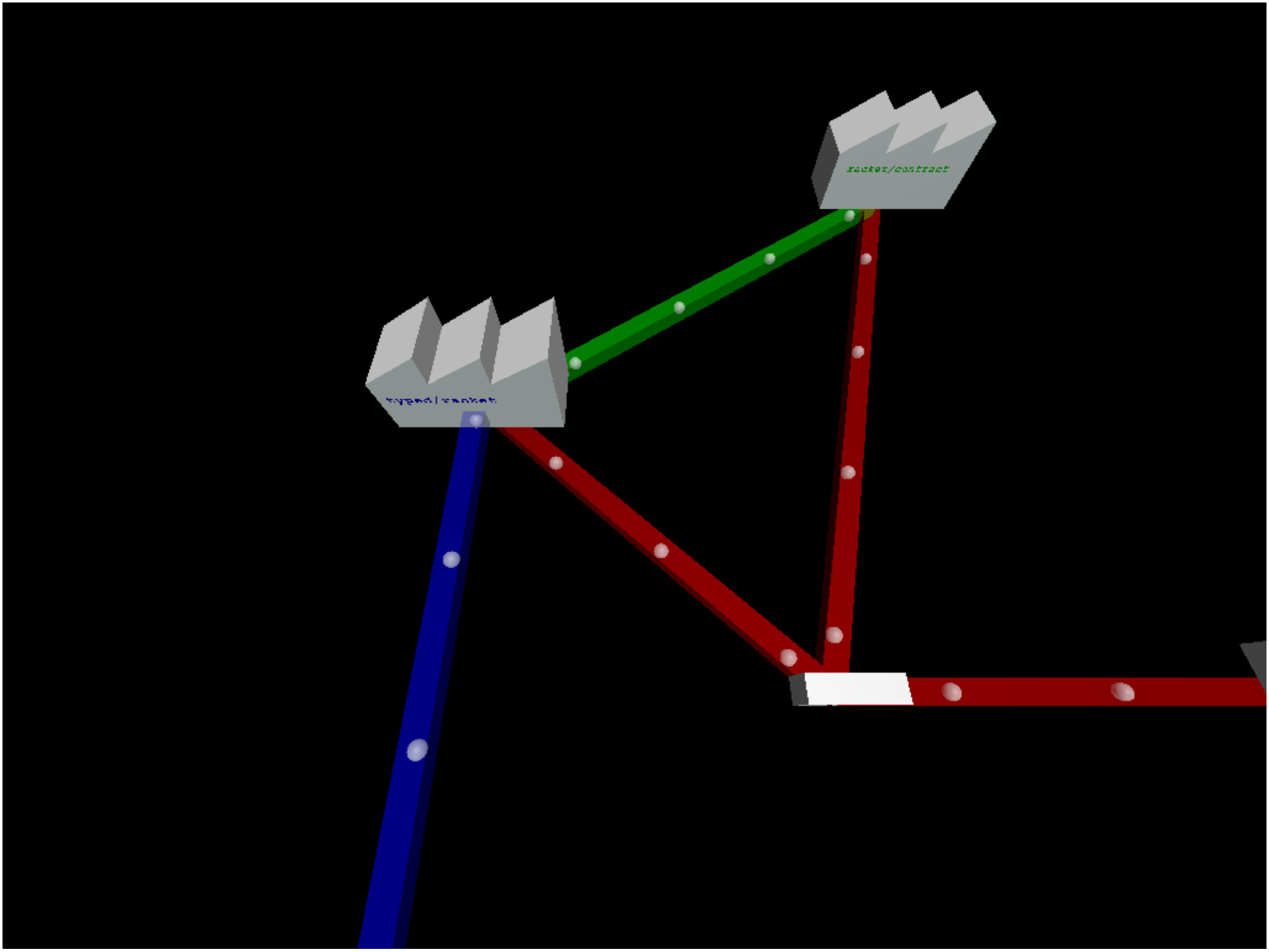
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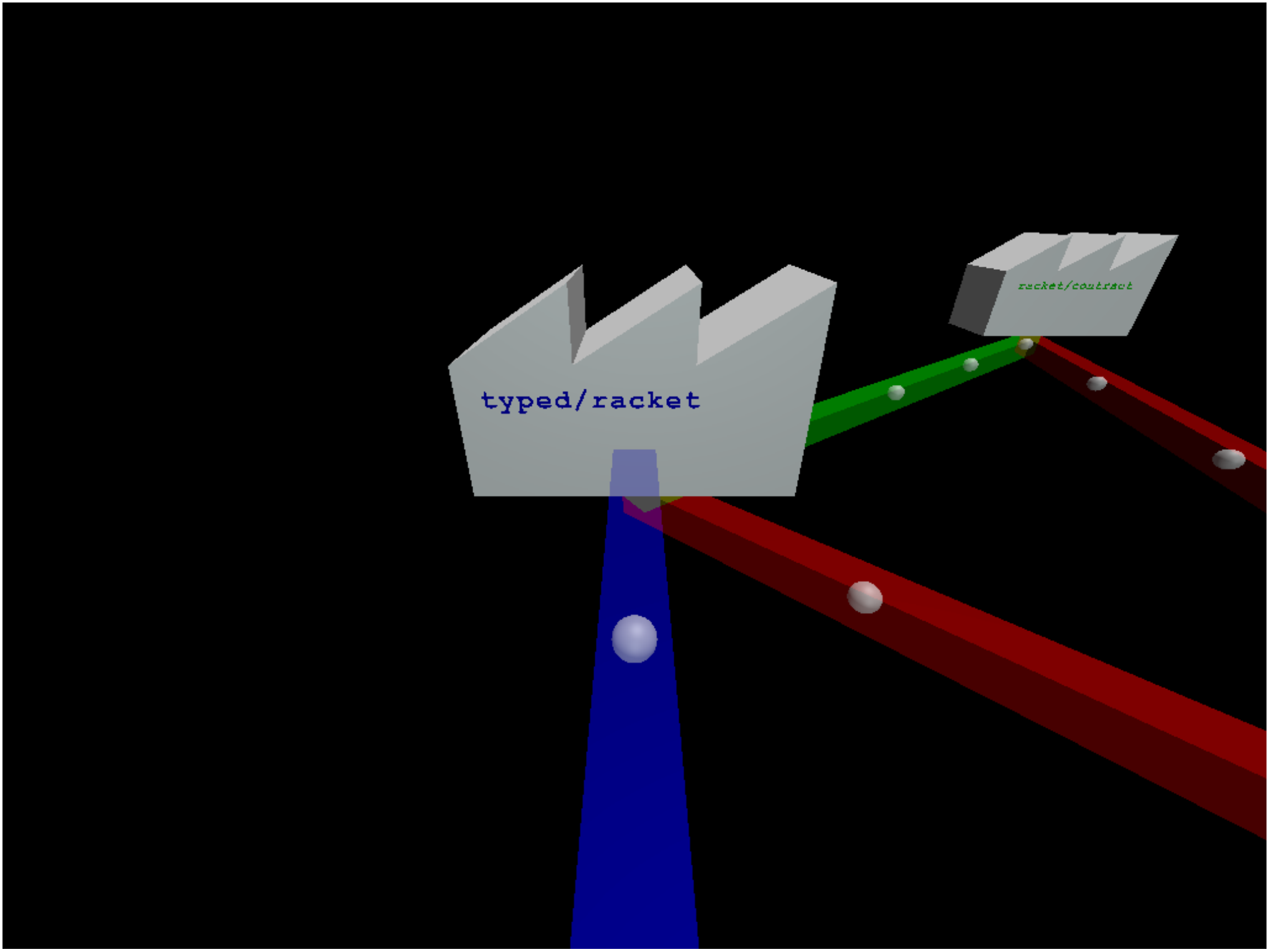
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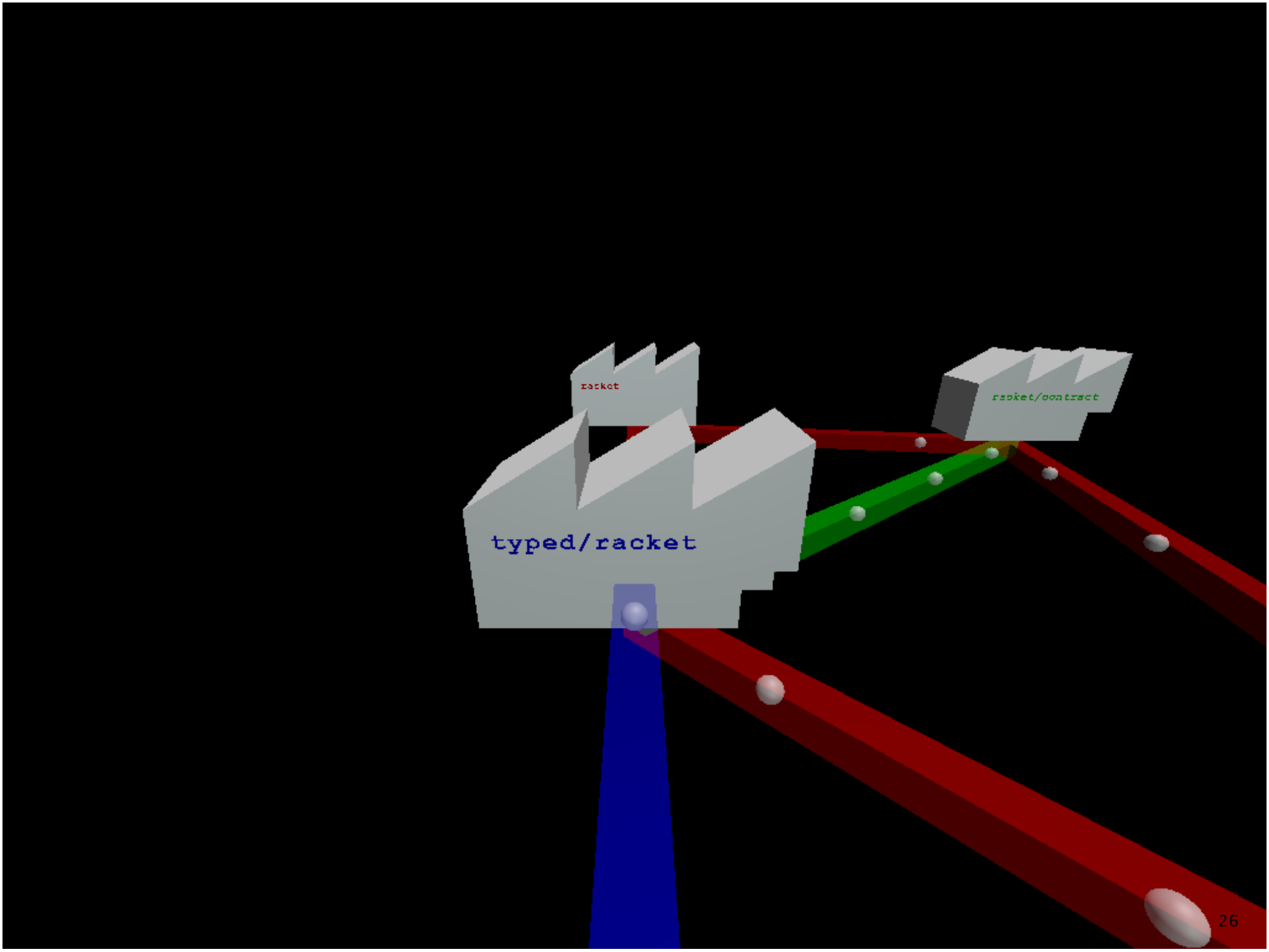
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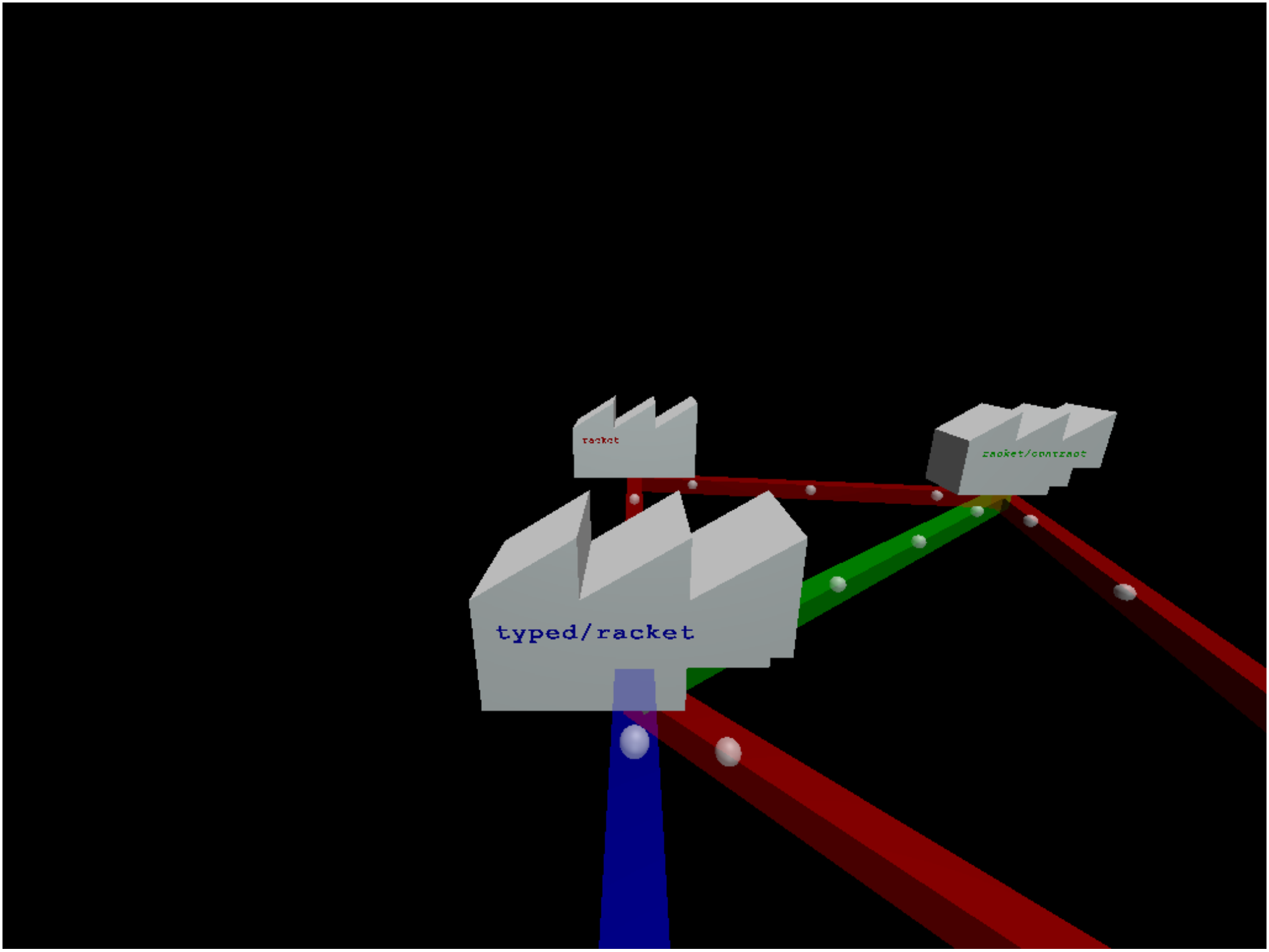
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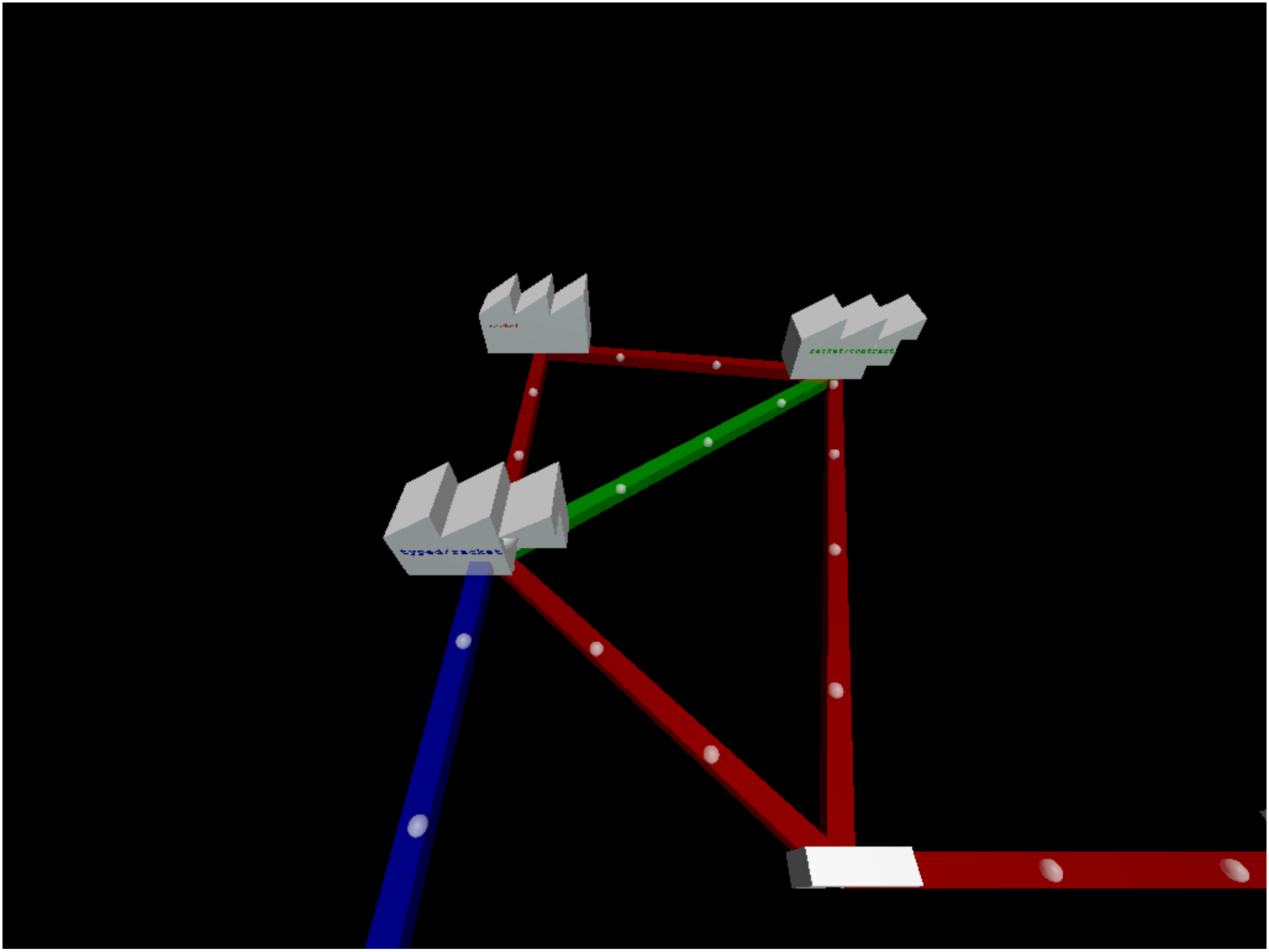
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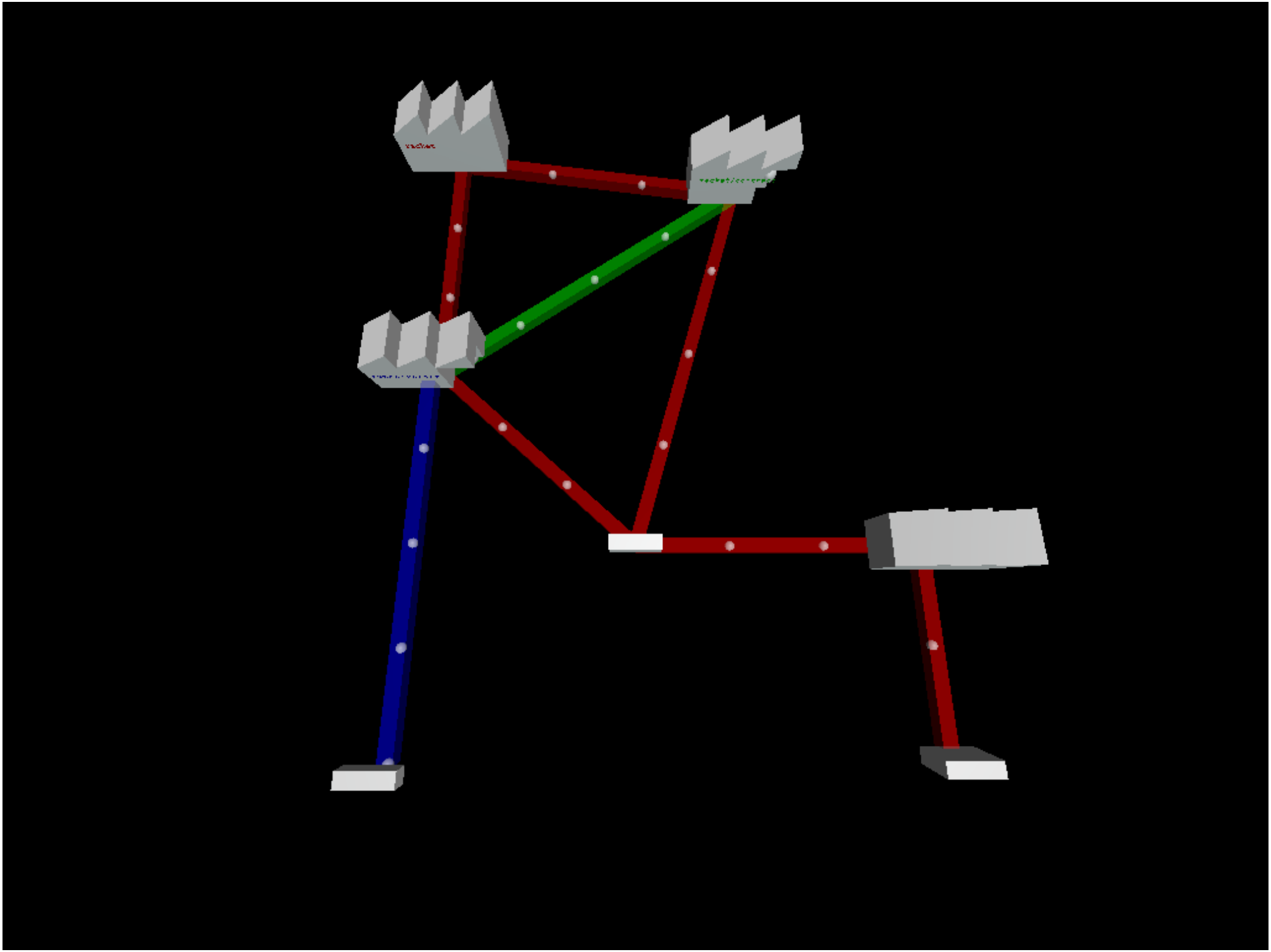

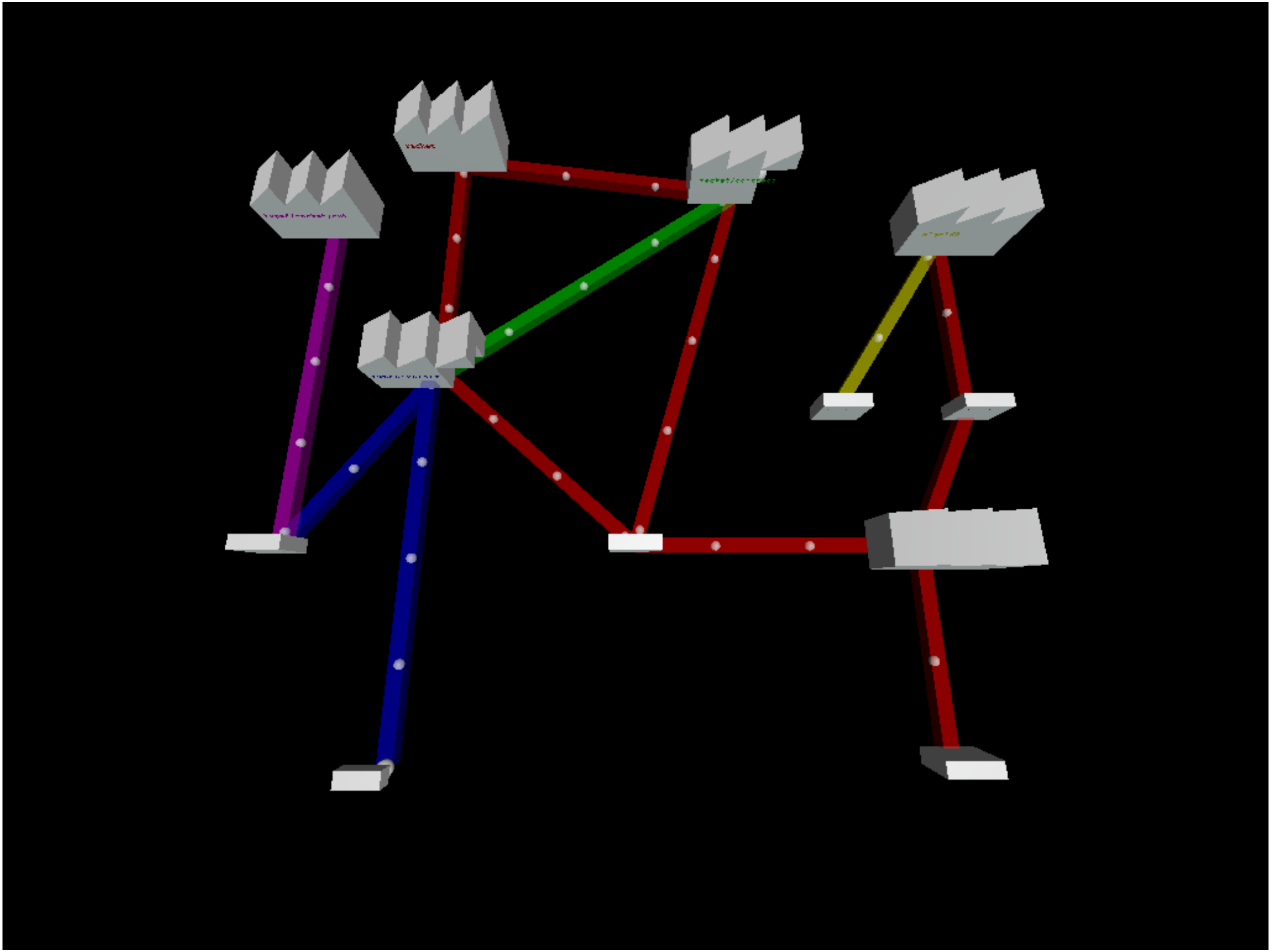

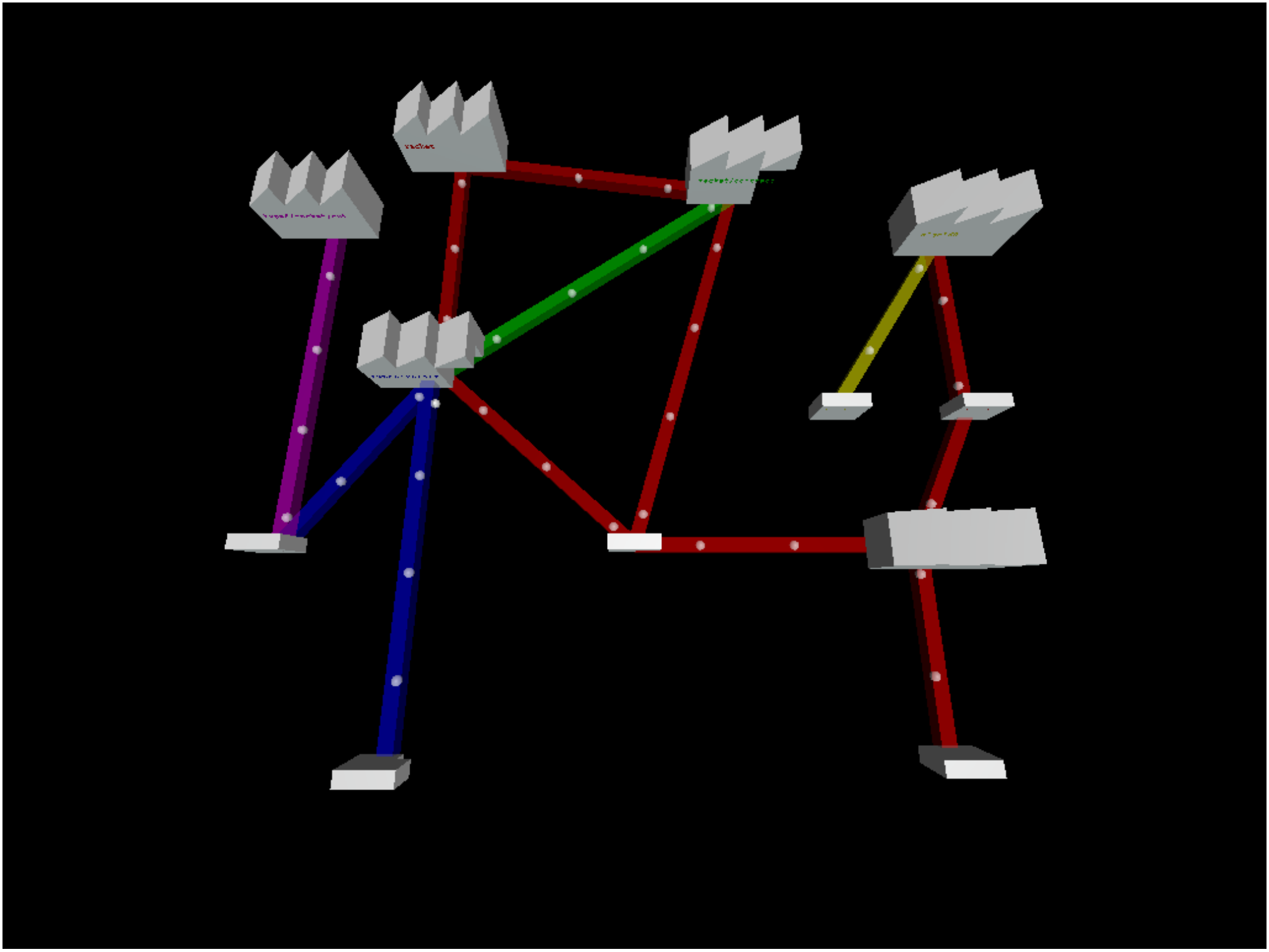

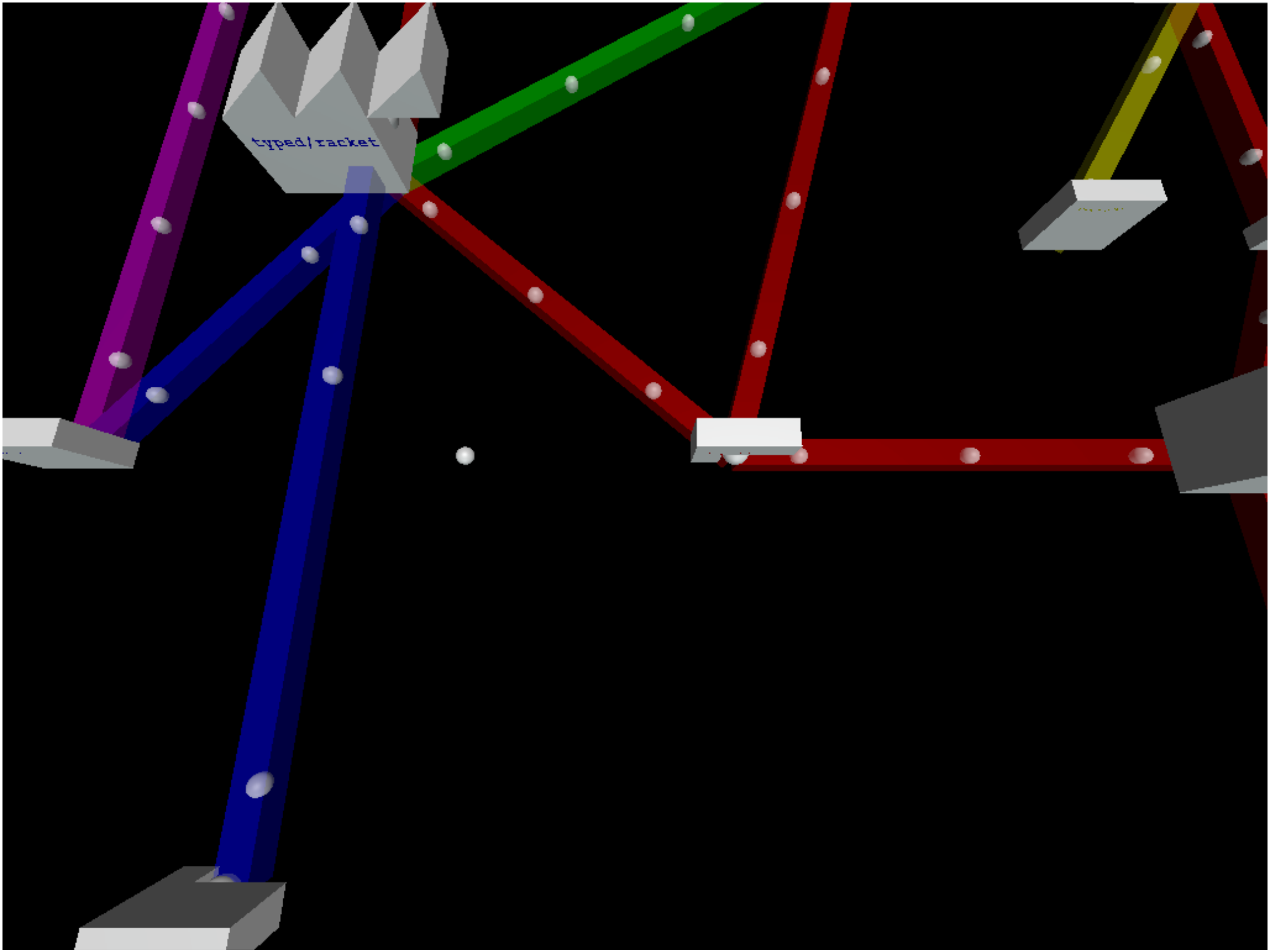
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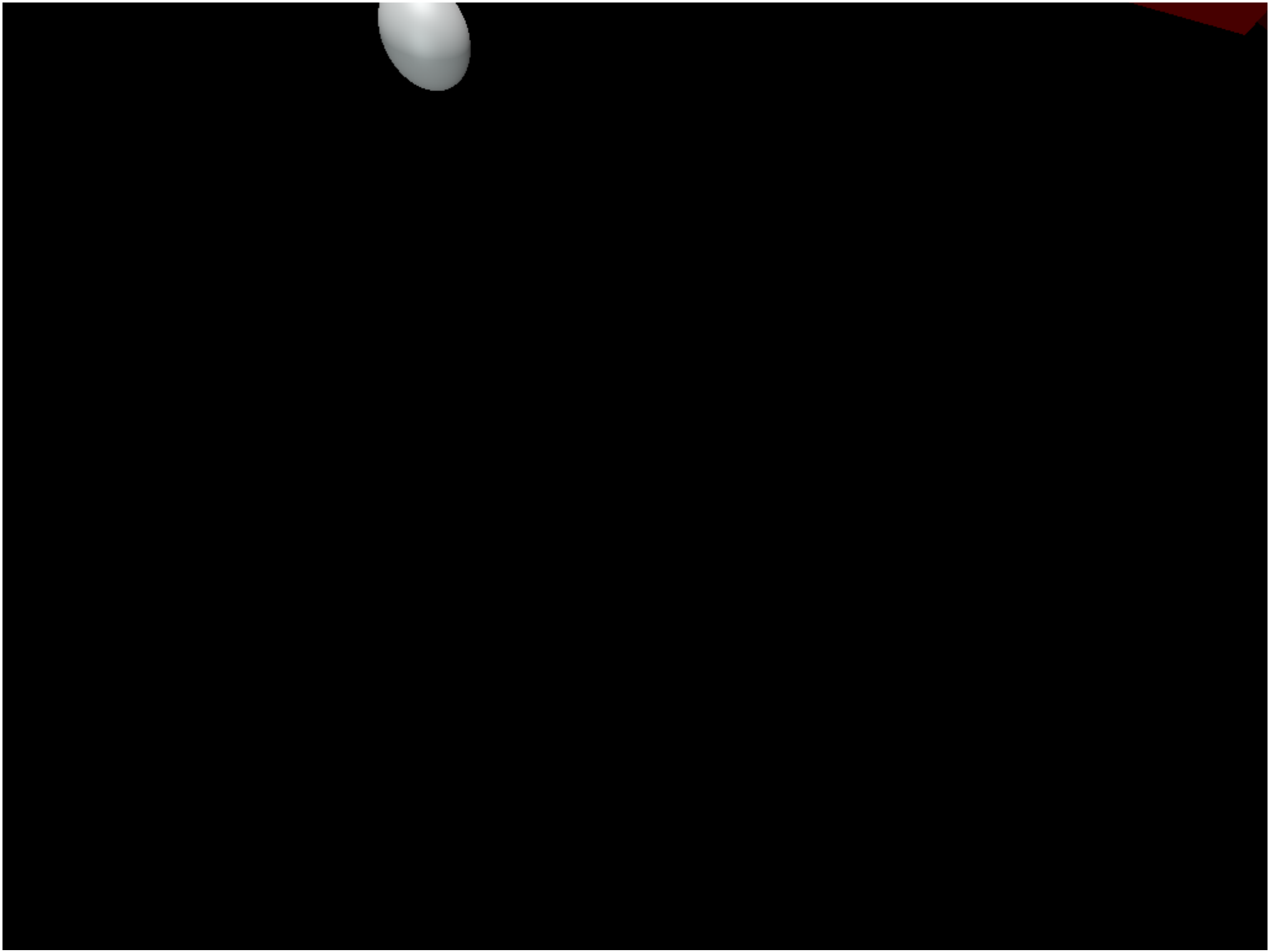

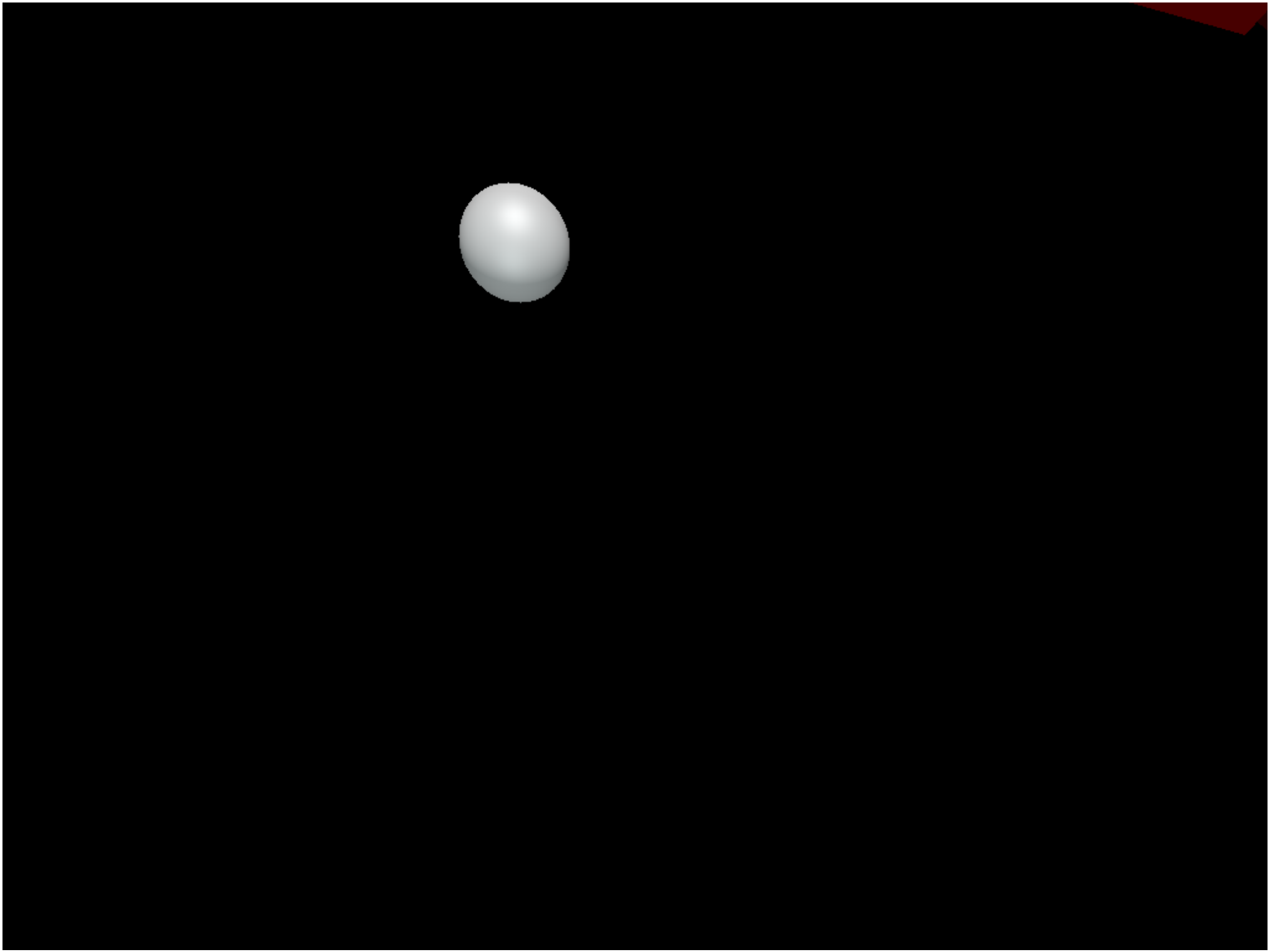

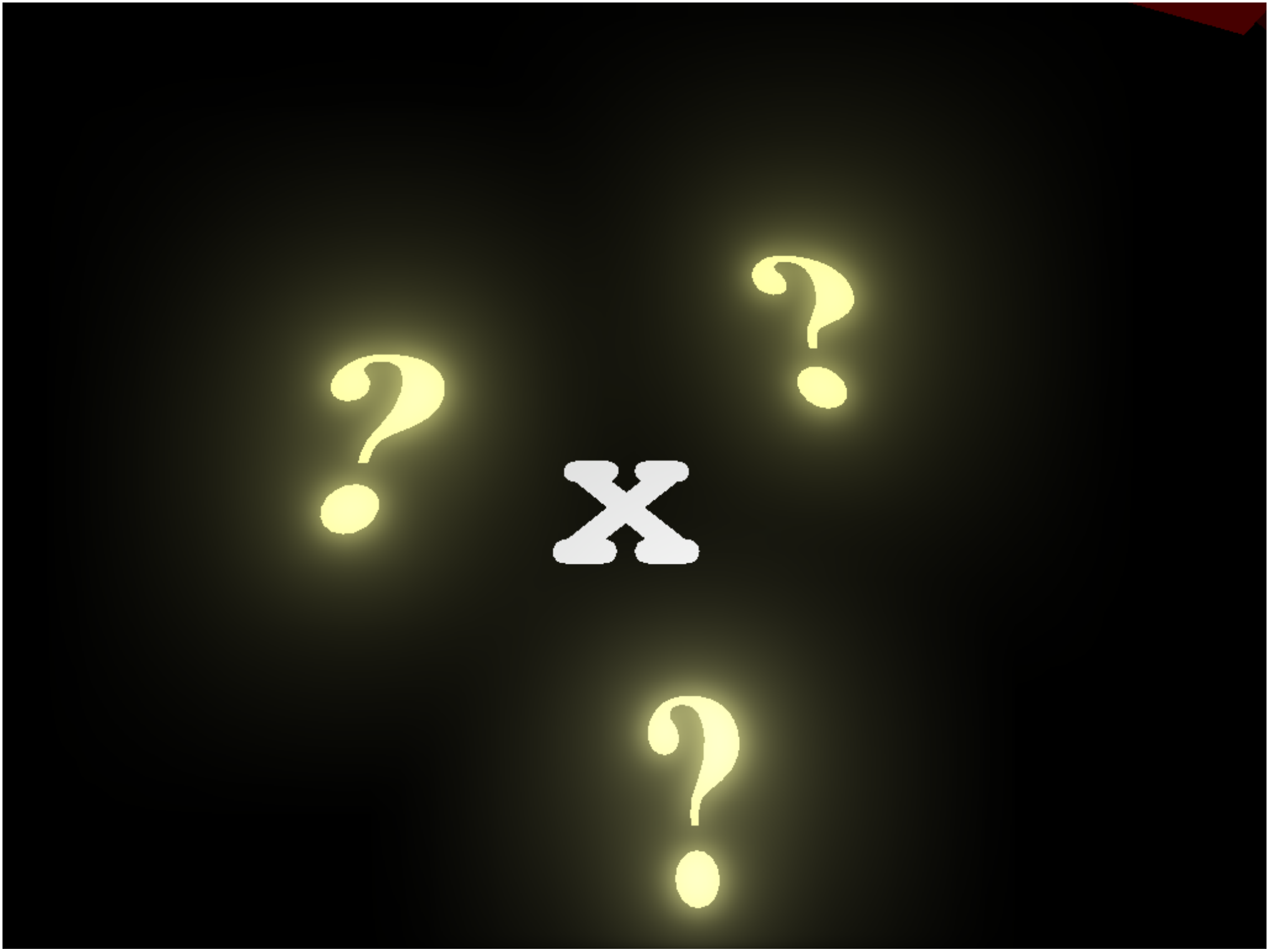
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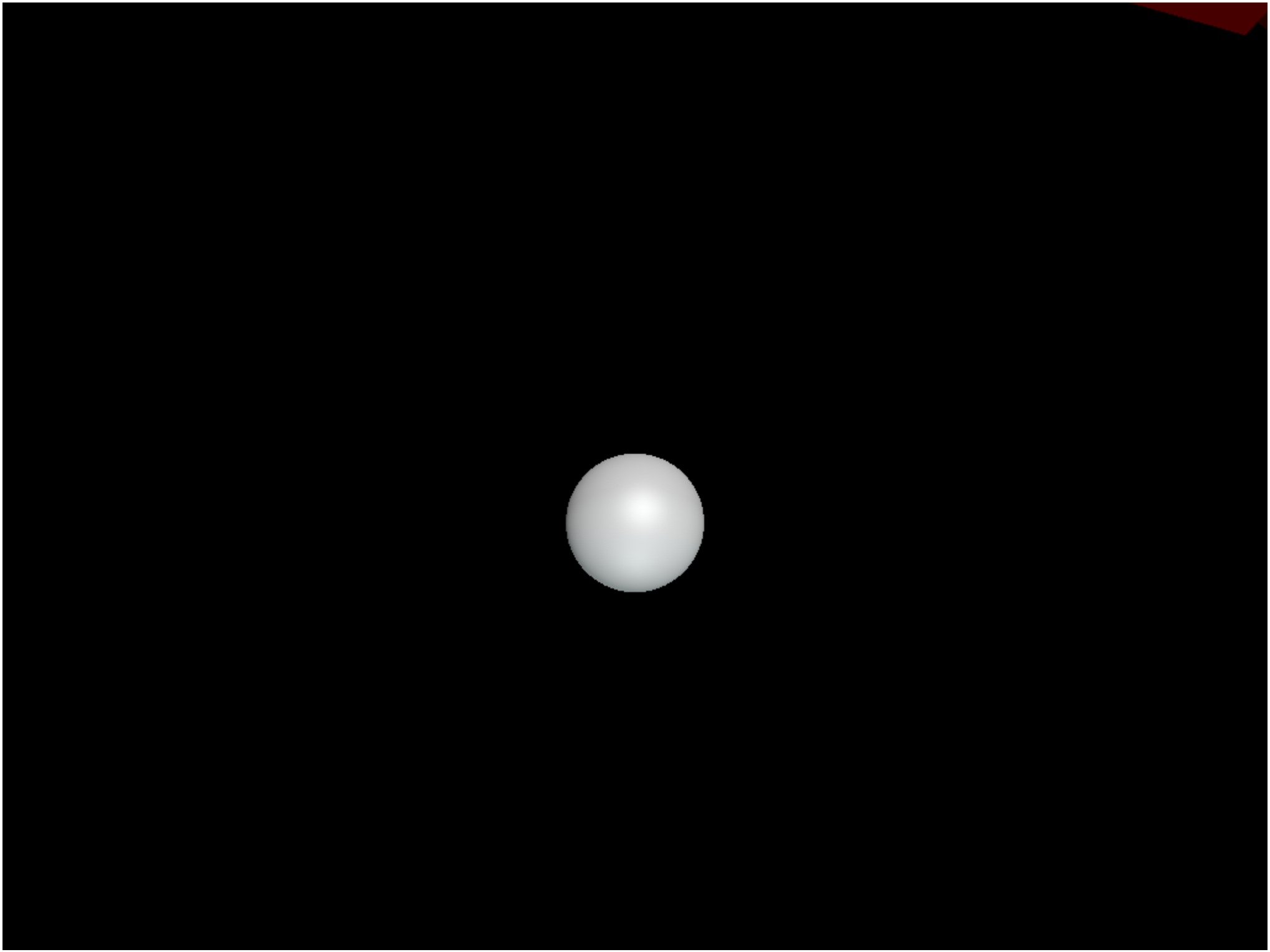
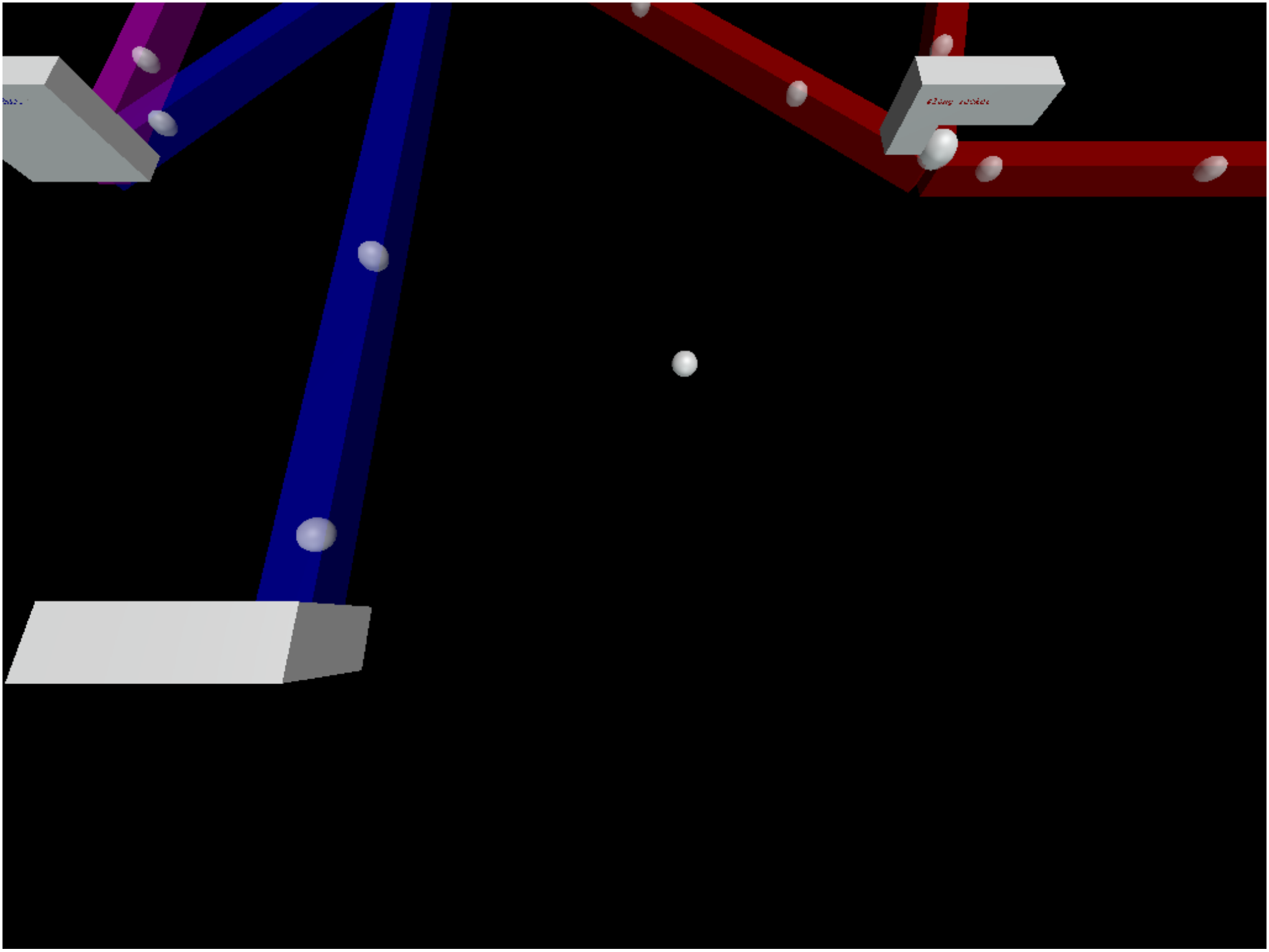
?

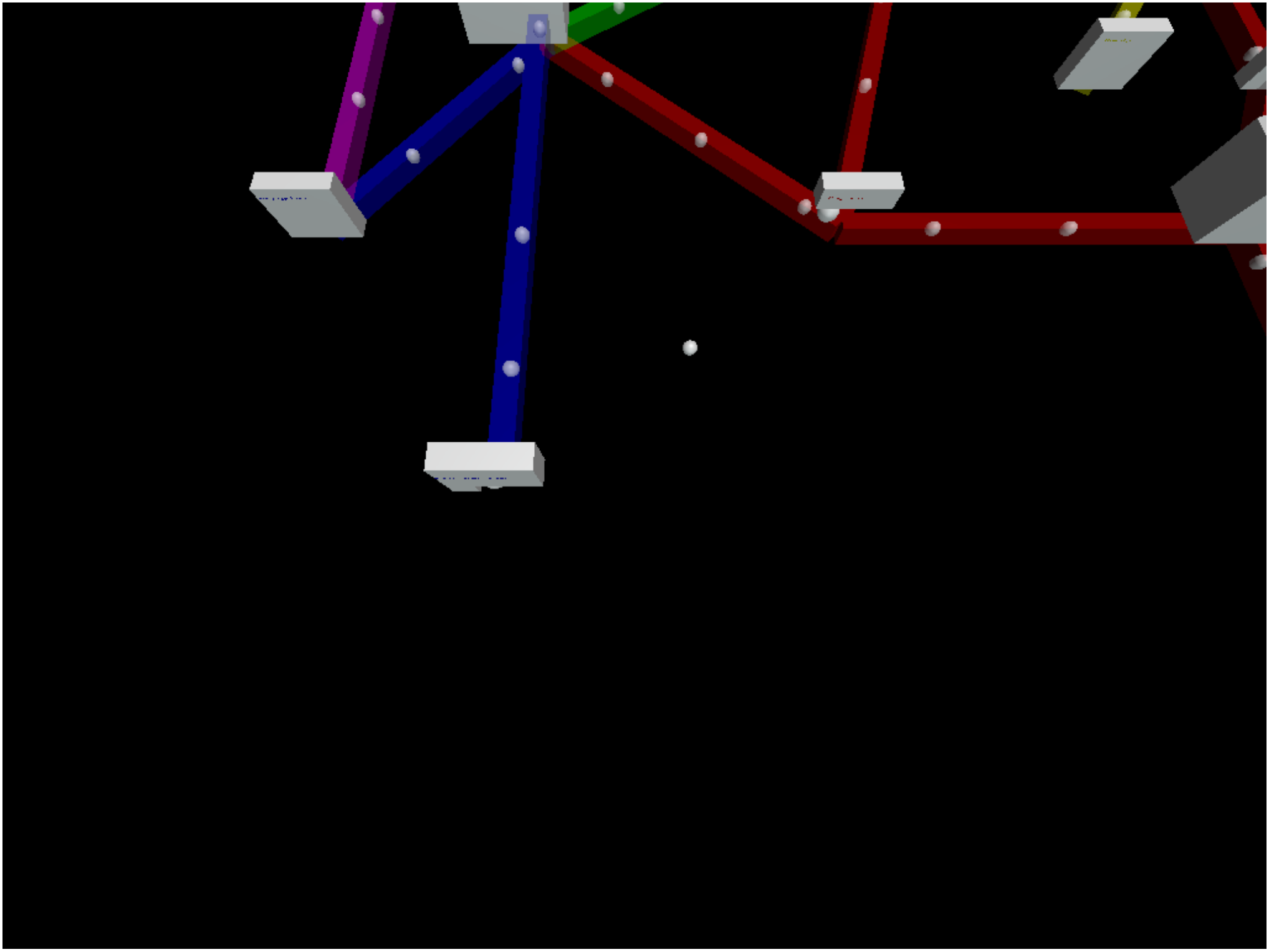
X

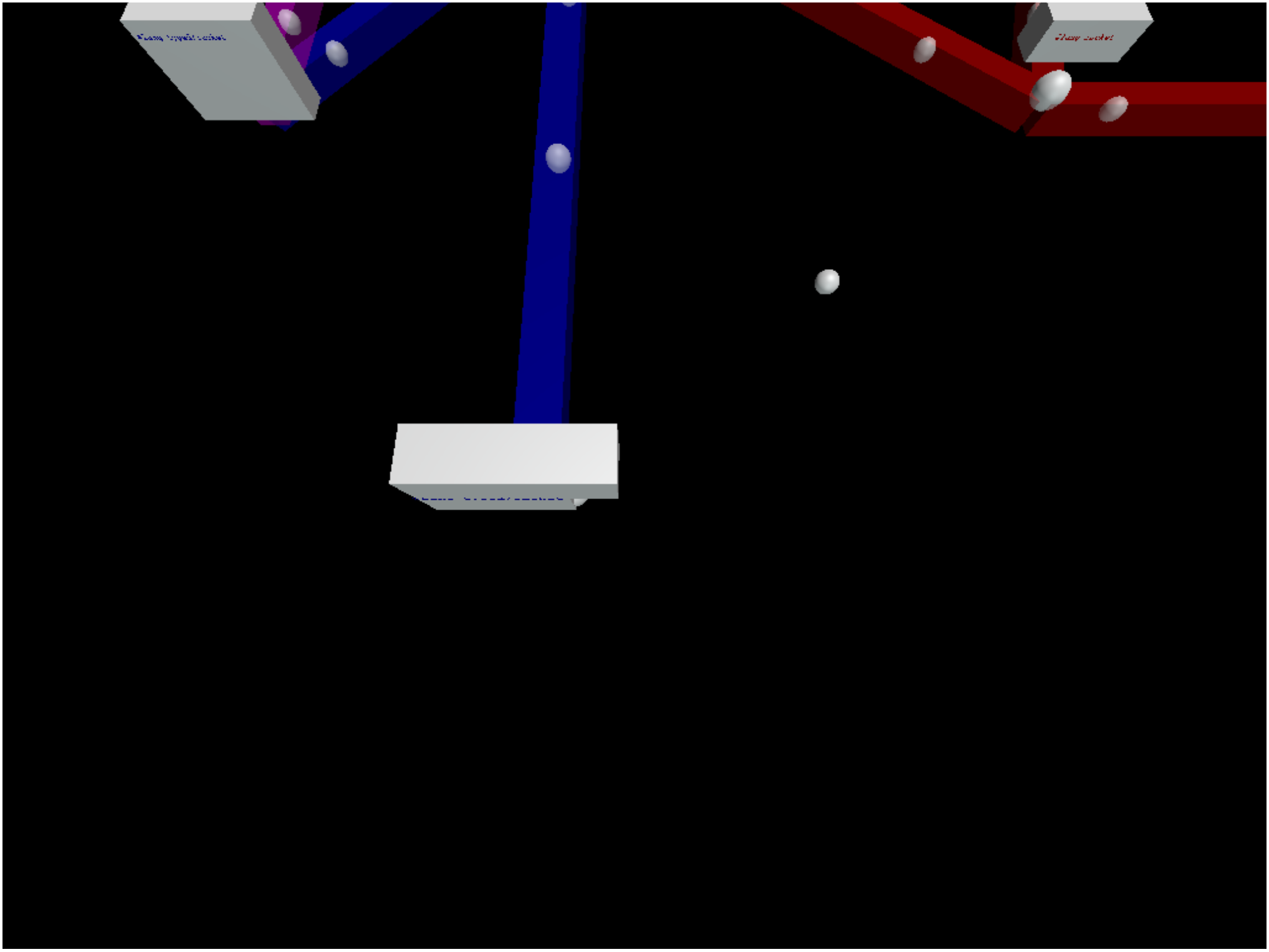
X

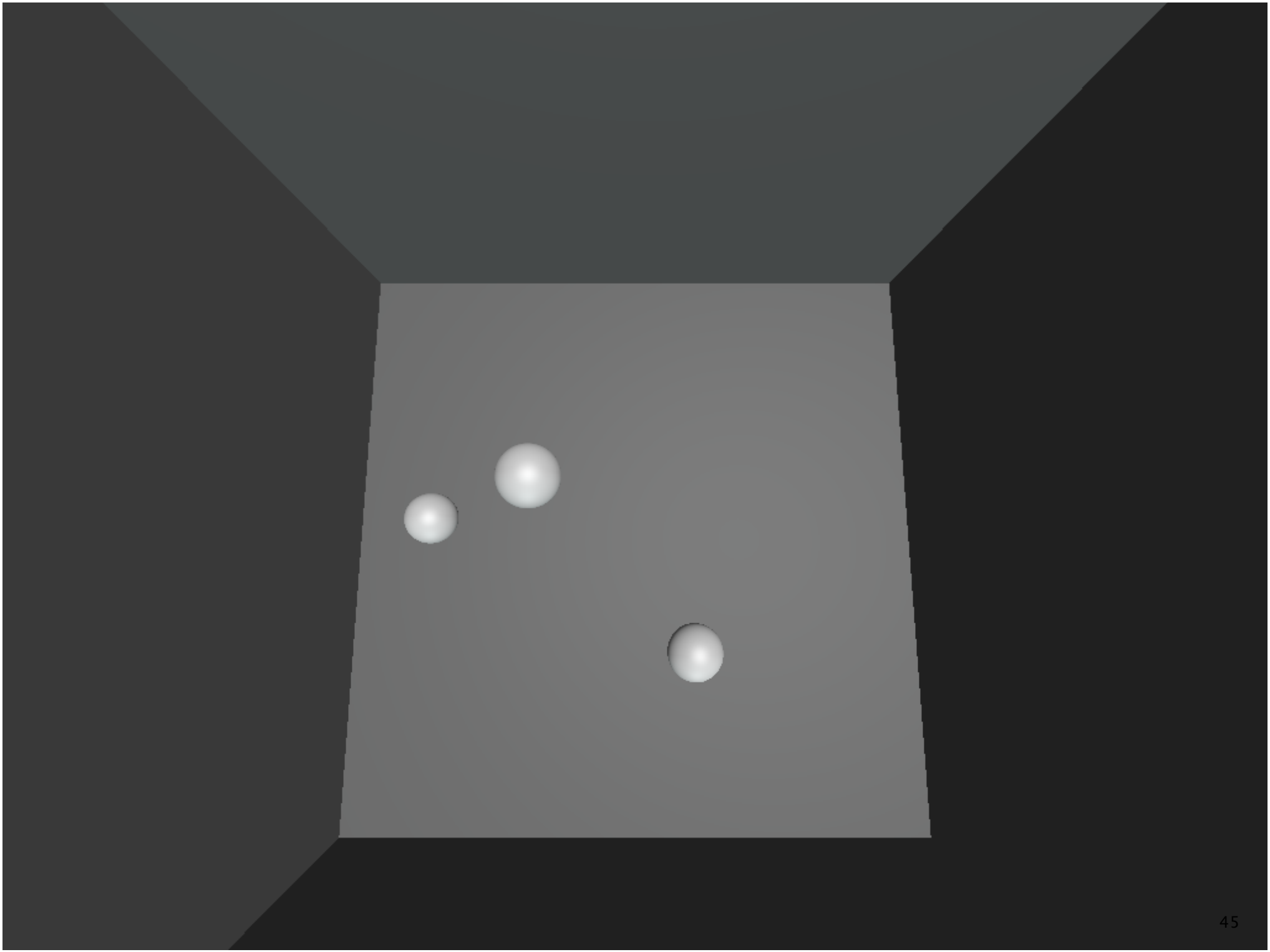
y











```
(define x ....)
```

```
; maybe value for “premade”:
(define x ....)
```

```
; maybe value for “premade”:
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))
```

```
; maybe value for “premade”:
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (premade-or (x)))
```

```
; maybe value for "premade":
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
     ....    ) ; was (premade-or (x))
```

```
; maybe value for "premade":
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

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     ....    ) ; was (premade-or (x))
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; maybe value for "premade":
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  (or x e))

(let ([x ....])
  (      (x))) ; was (premade-or (x))
```

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; maybe value for "premade":
(define x ....)

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  (or x e))

(let ([x ....])
  (or x (x))) ; was (premade-or (x))
```

```
; maybe value for "premade":
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (or x (x)))
```

```
(define x ....)

(define (f x)
  (define x ....)

  (define-syntax-rule (premade-or e)
    (or x e))

  (let ([x ....])
    (or x (x)))
  ....)

(define y ....)
```

```
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (or x (x)))
```

```
(define-syntax-rule (or a b)
  (let ([x a])
    (if x x b)))

(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (or x (x)))
```

```
(define-syntax-rule (or a b)
  (let ([x a])
    (if x x b)))

(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (let ([x x])
    (if x x (x))))
```

```
(define-syntax-rule (or a b)
  (let ([x a])
    (if x x b)))

(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (let ([x x])
    (if x x (x))))
```

```
(define-syntax-rule (or a b)
  (let ([x a])
    (if x x b)))
(define x ....)
(define-syntax-rule (premade-or e)
  (or x e))
(let ([x ....])
  x
    x   )
(let ([x   ])
  (if x x ( )))
```

```
(define-syntax-rule (or a b)
  (let ([x a])
    (if x x b)))

(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (let ([x x])
    (if x x (x))))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (or y x)))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (or y x)))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (or y x)))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (or y x)))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (or y x)))
```

```
(define x 1)

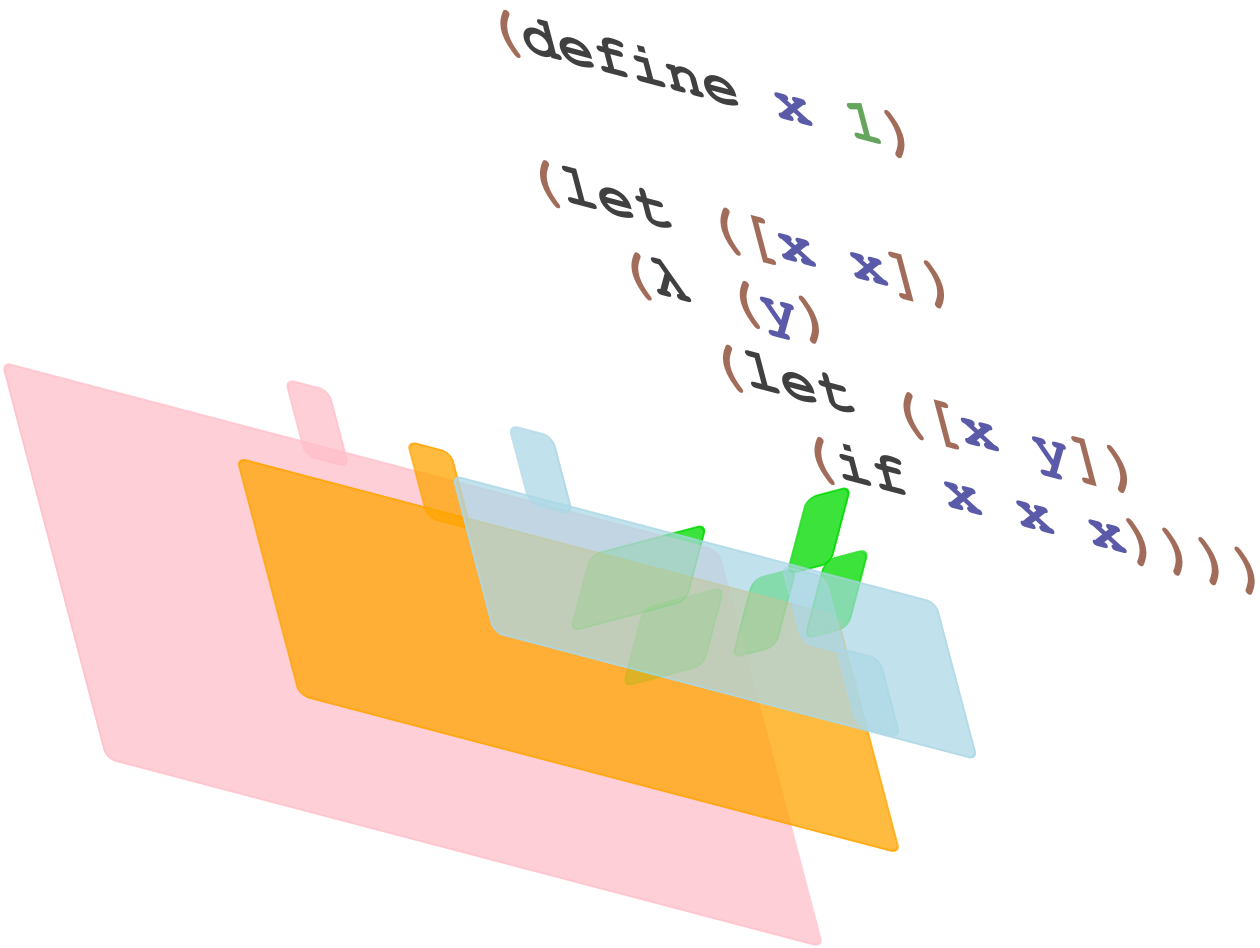
(let ([x x])
  (λ (y)
    (or y x)))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (let ([x y])
      (if x x x))))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (let ([x y])
      (if x x x))))
```


(define x 1)
(let ([x x])
(λ (y)
(let ([x y])
(if x x x))))

```
(define x 1)

(let ([x x])
  (λ (y)
    (let ([x y])
      (if x x x))))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (let ([x y])
      (if x x x))))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (let ([x y])
      (if x x x))))
```

```
(define x 1)

(let ([x x])
  (λ (y)
    (let ([x y])
      (if x x x))))
```

```
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (premade-or (x)))
```

```
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (premade-or (x)))
```

```
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
     ....    )  ; was (premade-or (x))
```

```
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
     ....    ) ; was (premade-or (x))
```

```
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (      (x))) ; was (premade-or (x))
```

```
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (or x (x))) ; was (premade-or (x))
```

```
(define x ....)

(define-syntax-rule (premade-or e)
  (or x e))

(let ([x ....])
  (or x (x)))
```

= scope

= scope

= scope set

= scope

= scope set

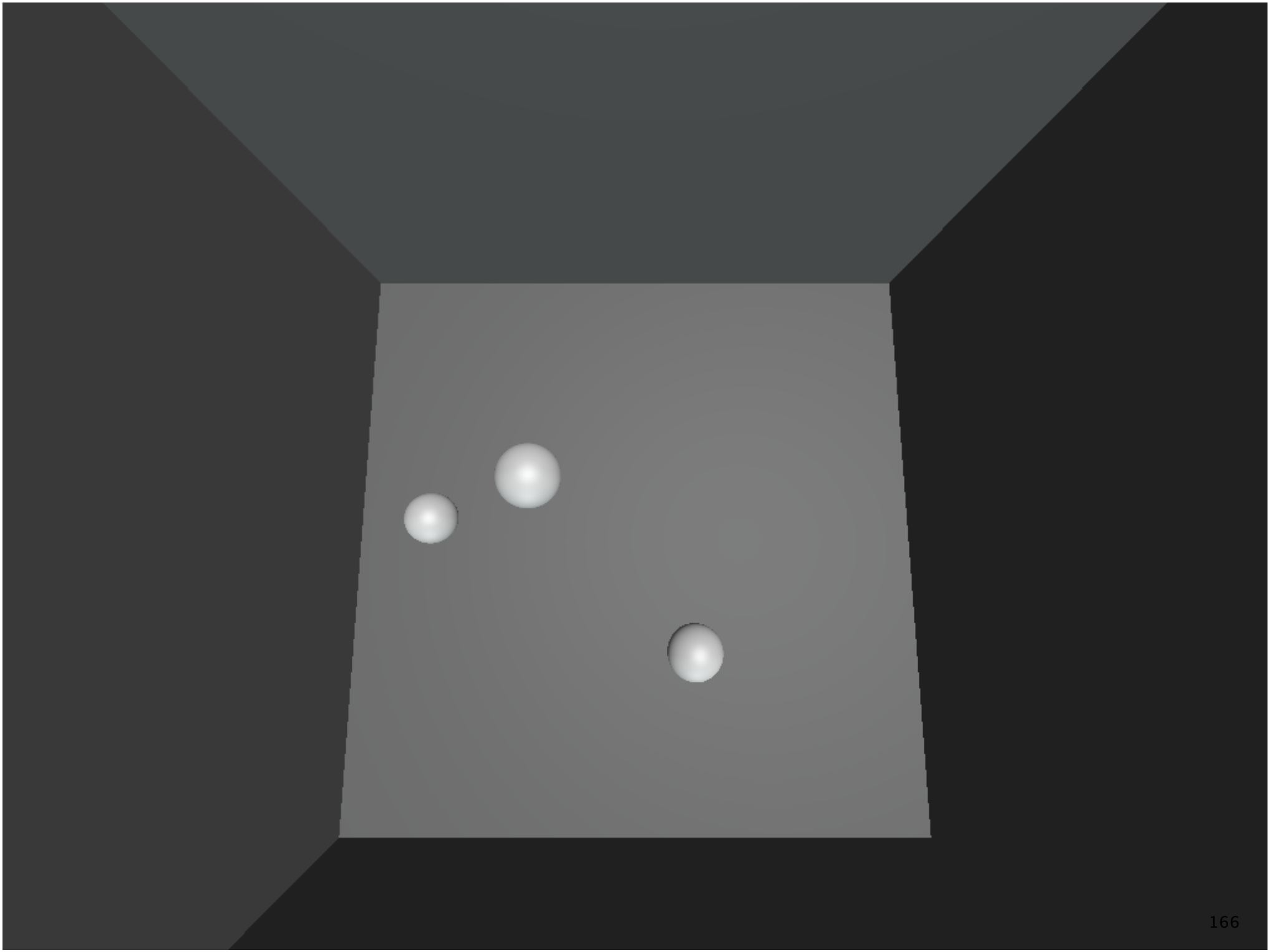
= syntax object

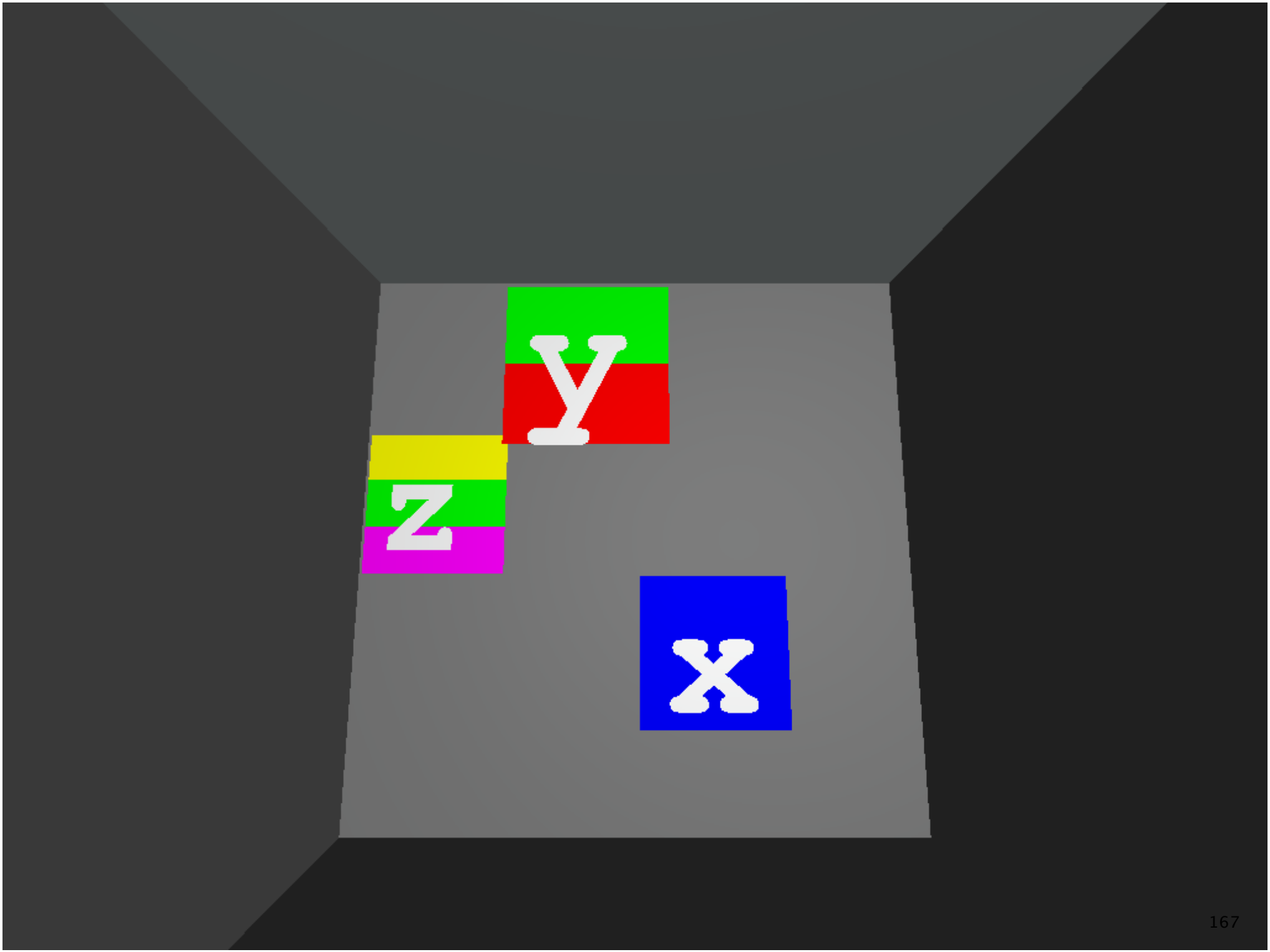
= scope

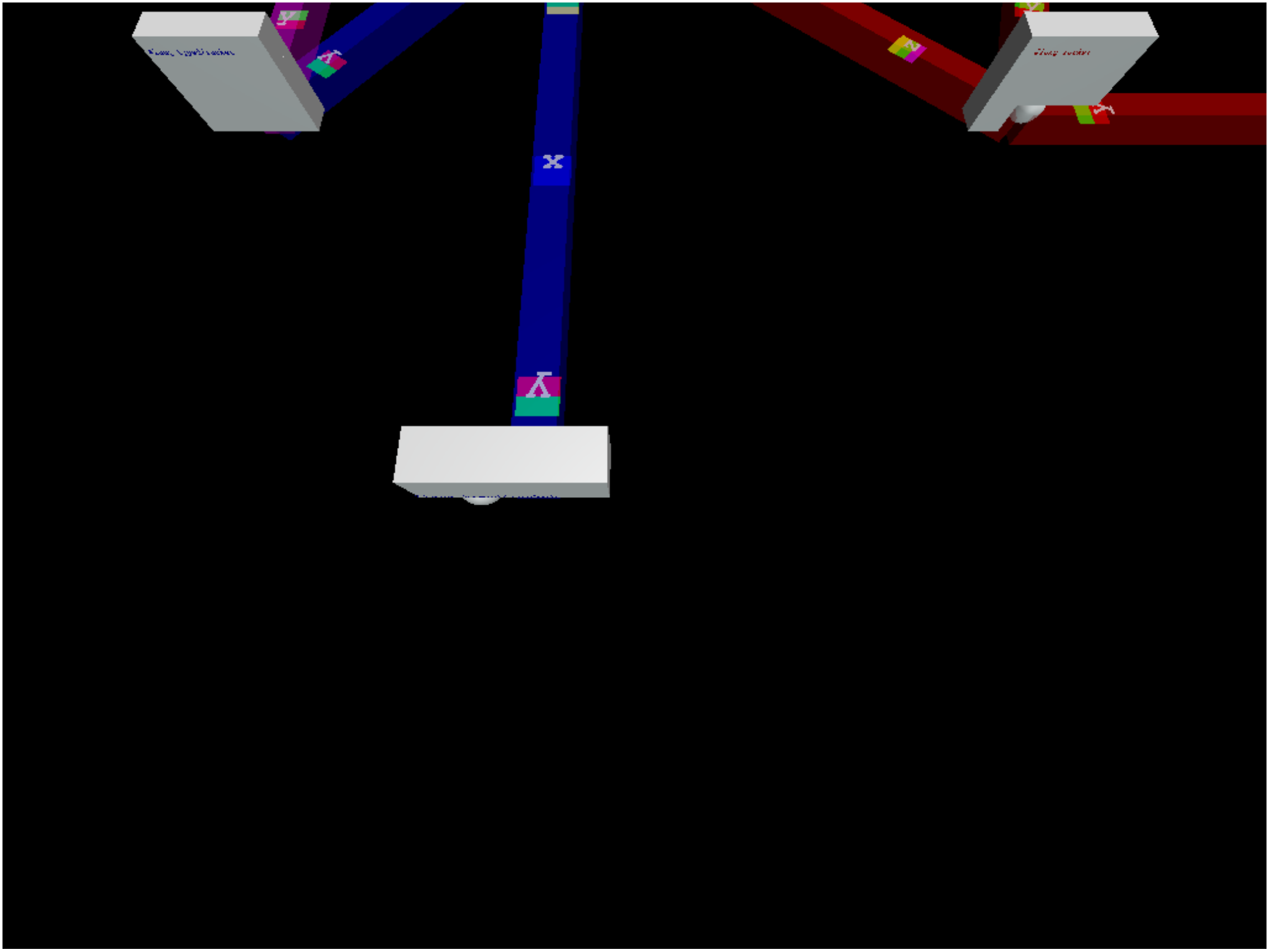
= scope set

= syntax object

**http://www.cs.utah.edu/~mflatt/scope-sets-5/**




y
z
x


x
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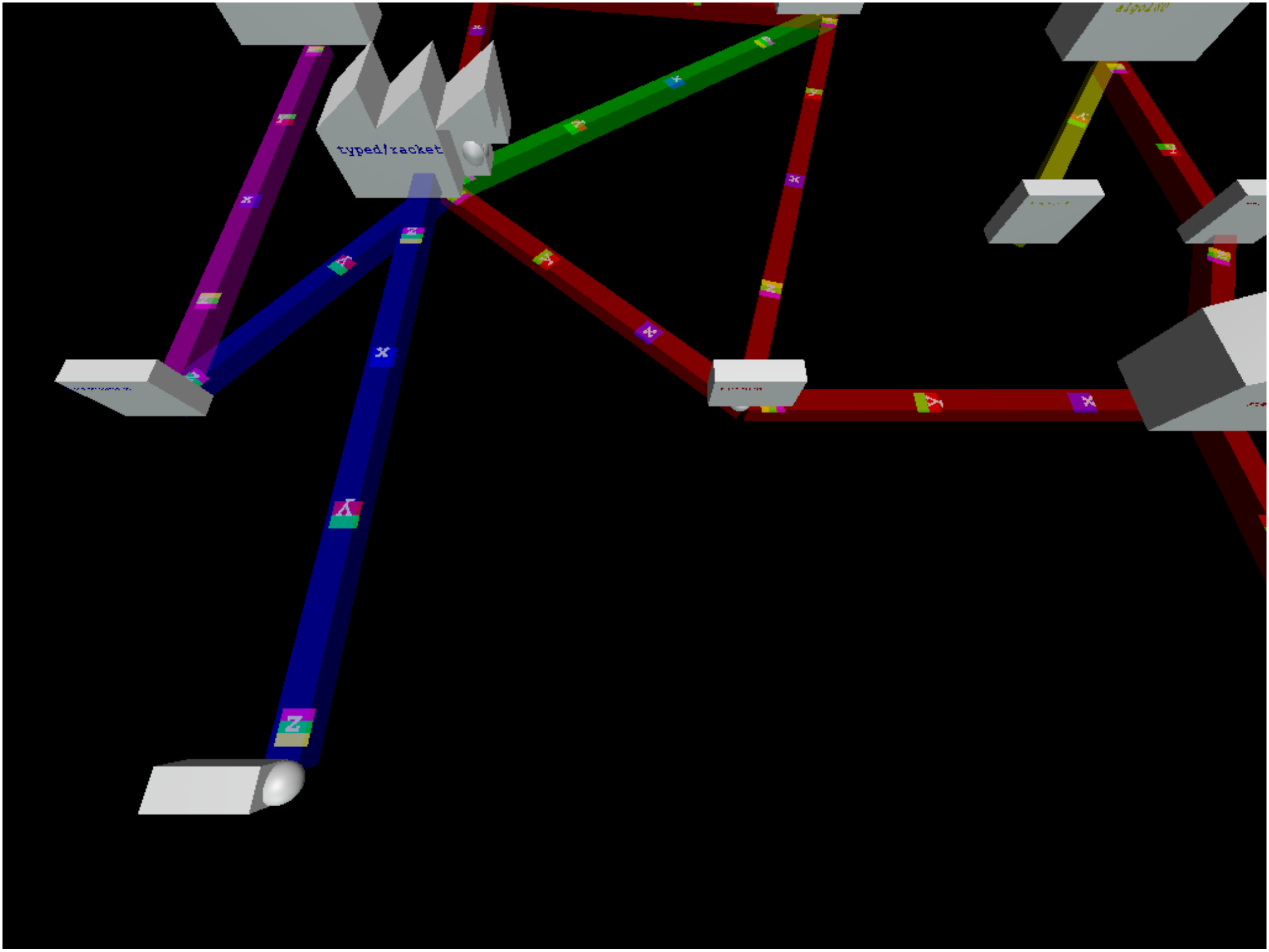
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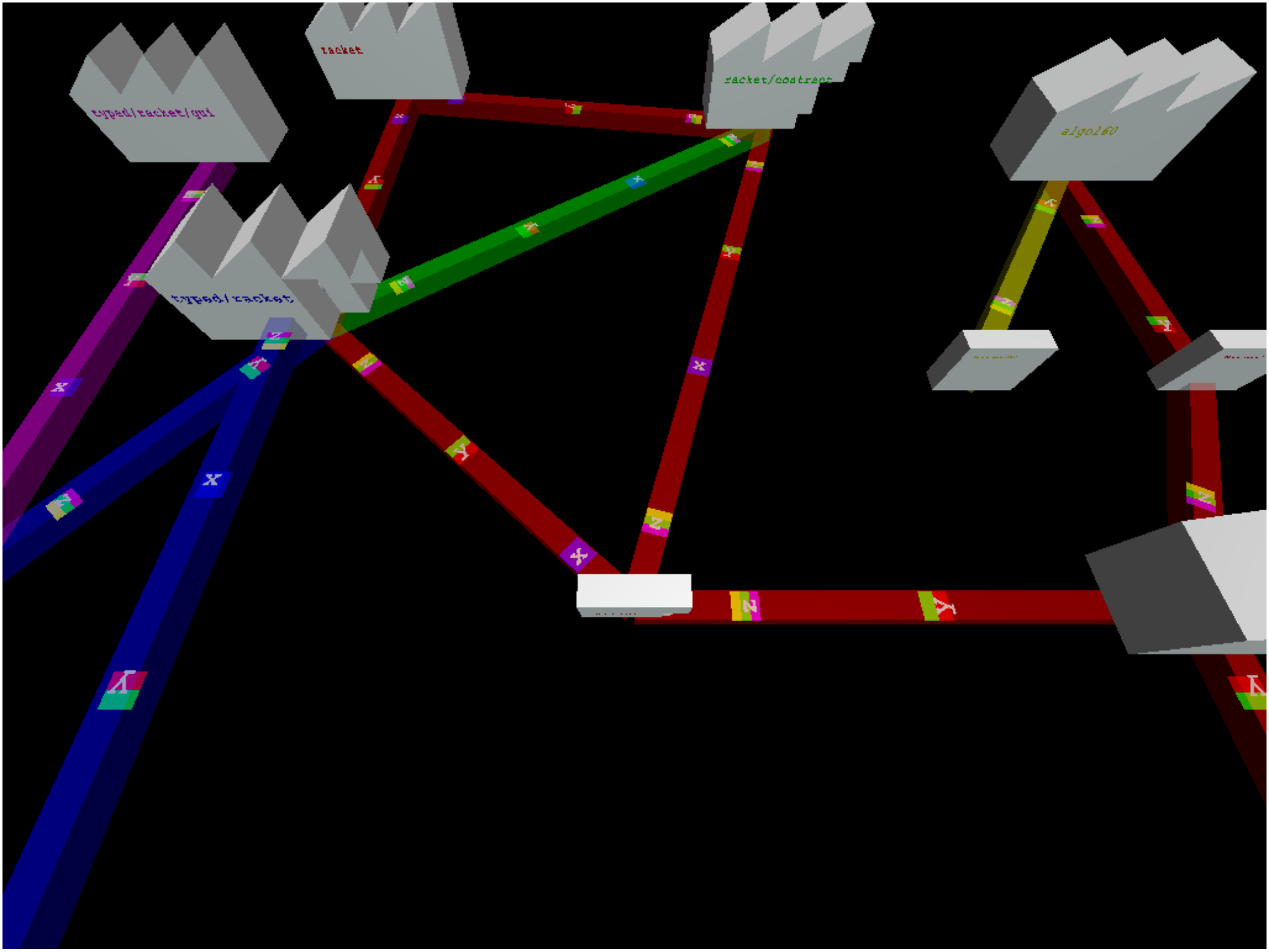
typed/racket/gui
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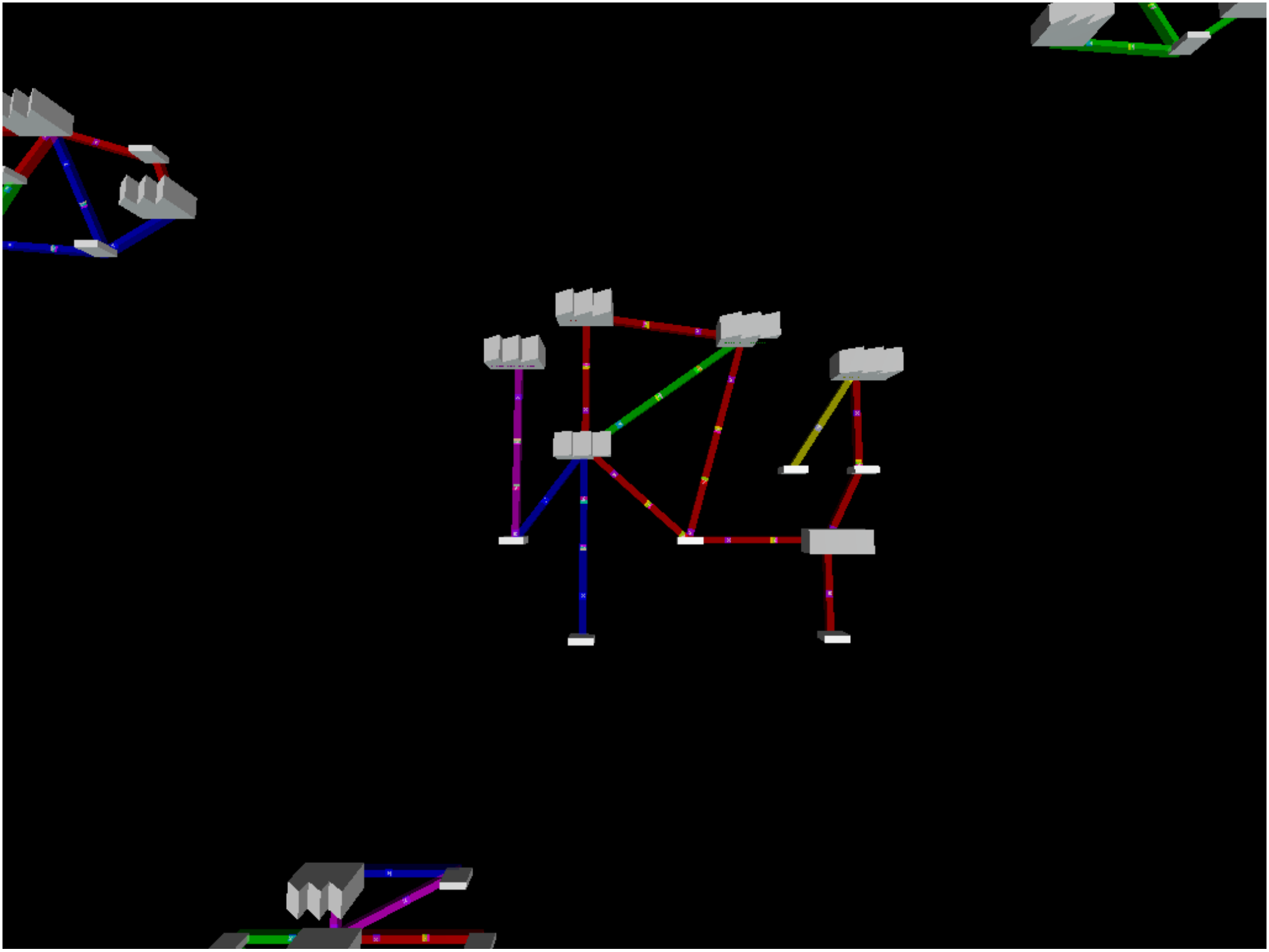
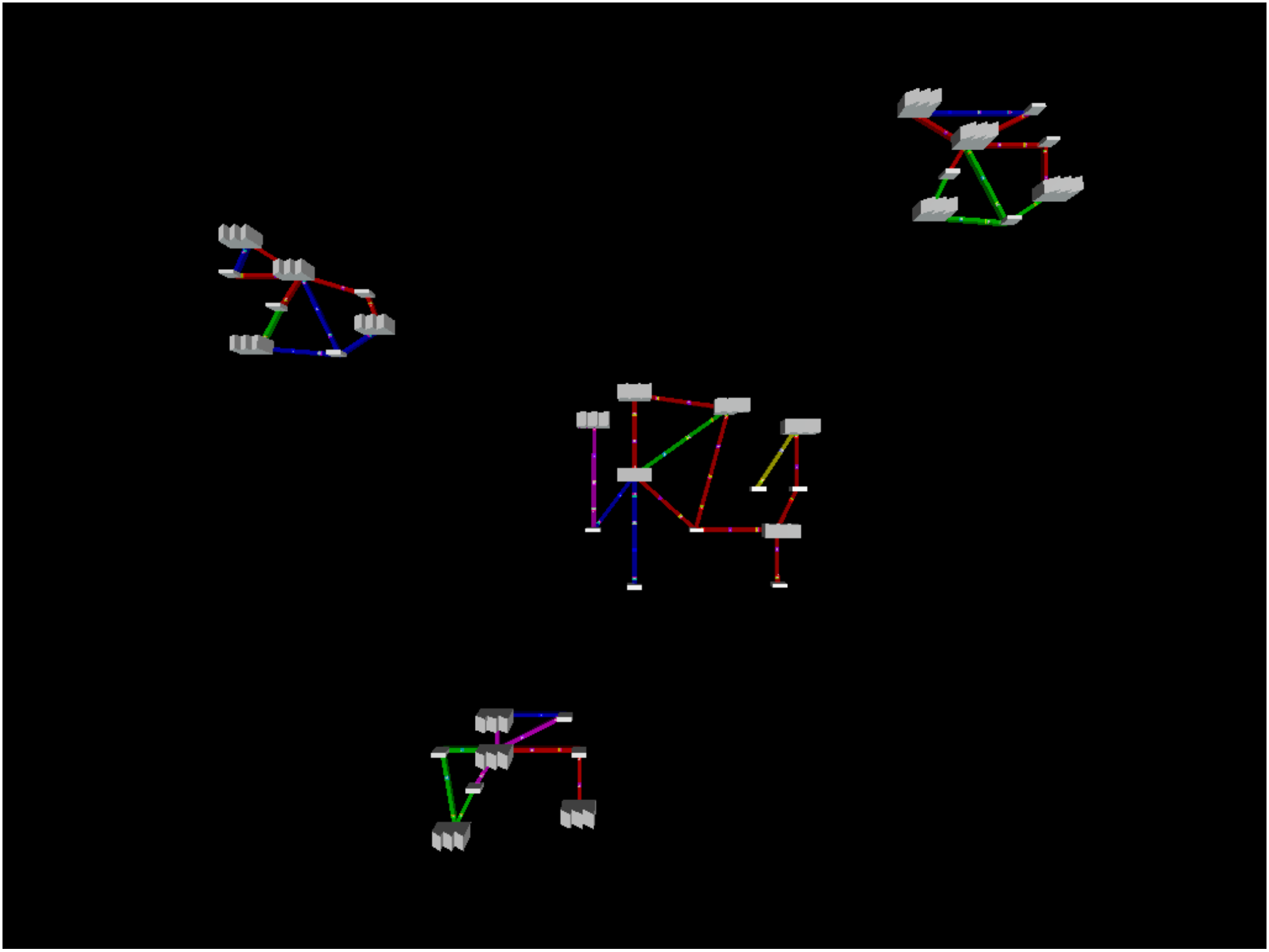
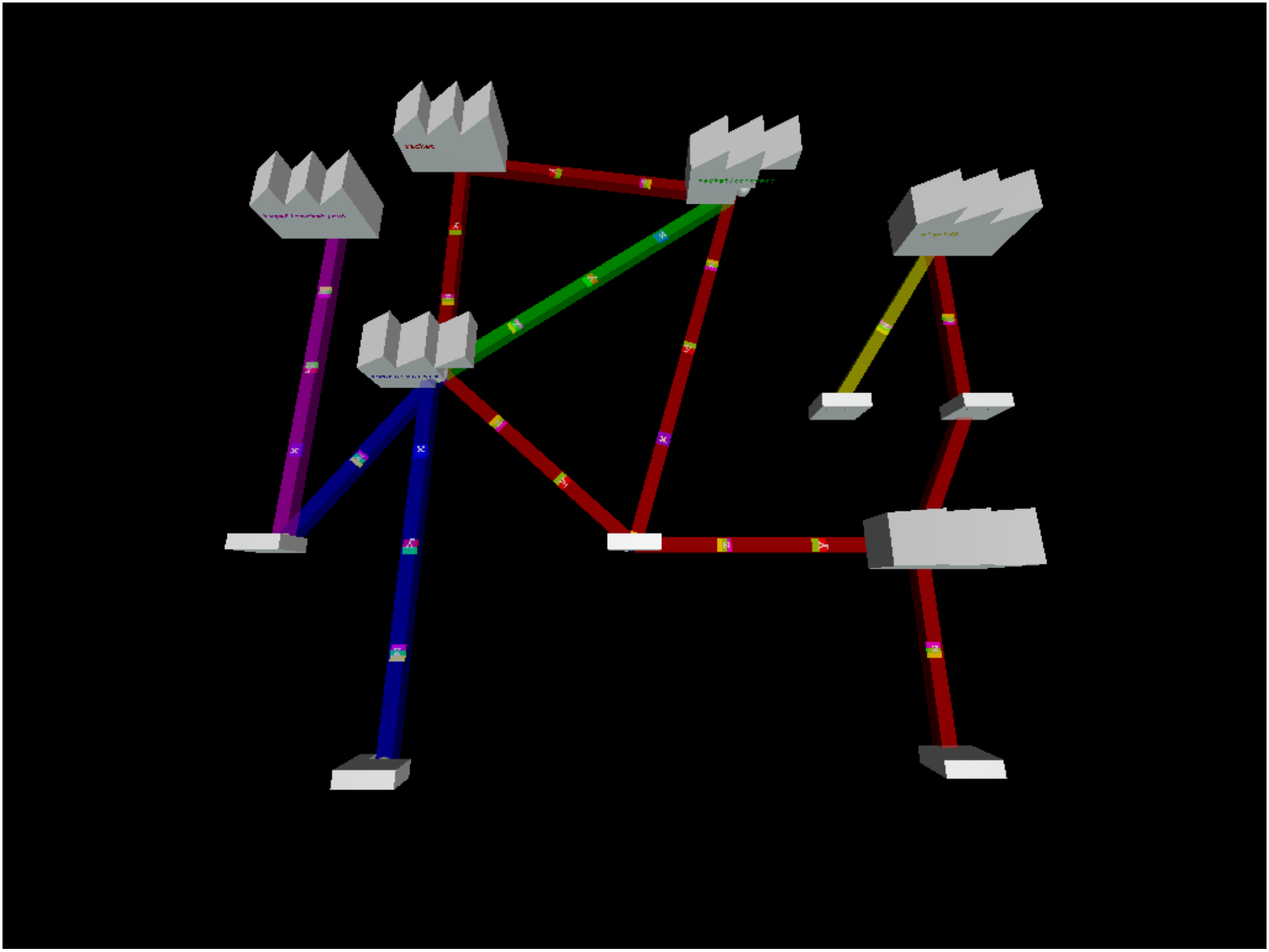
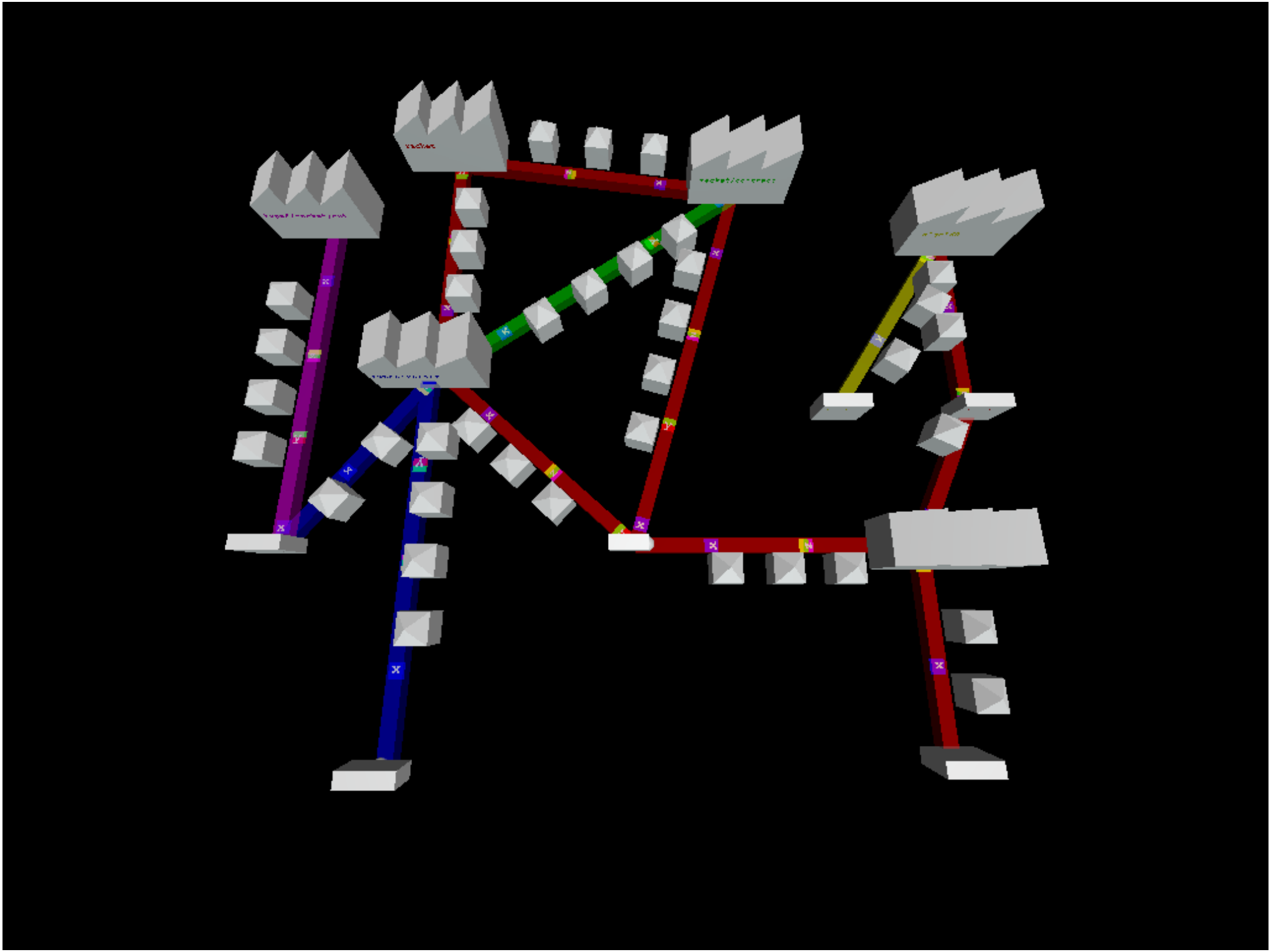
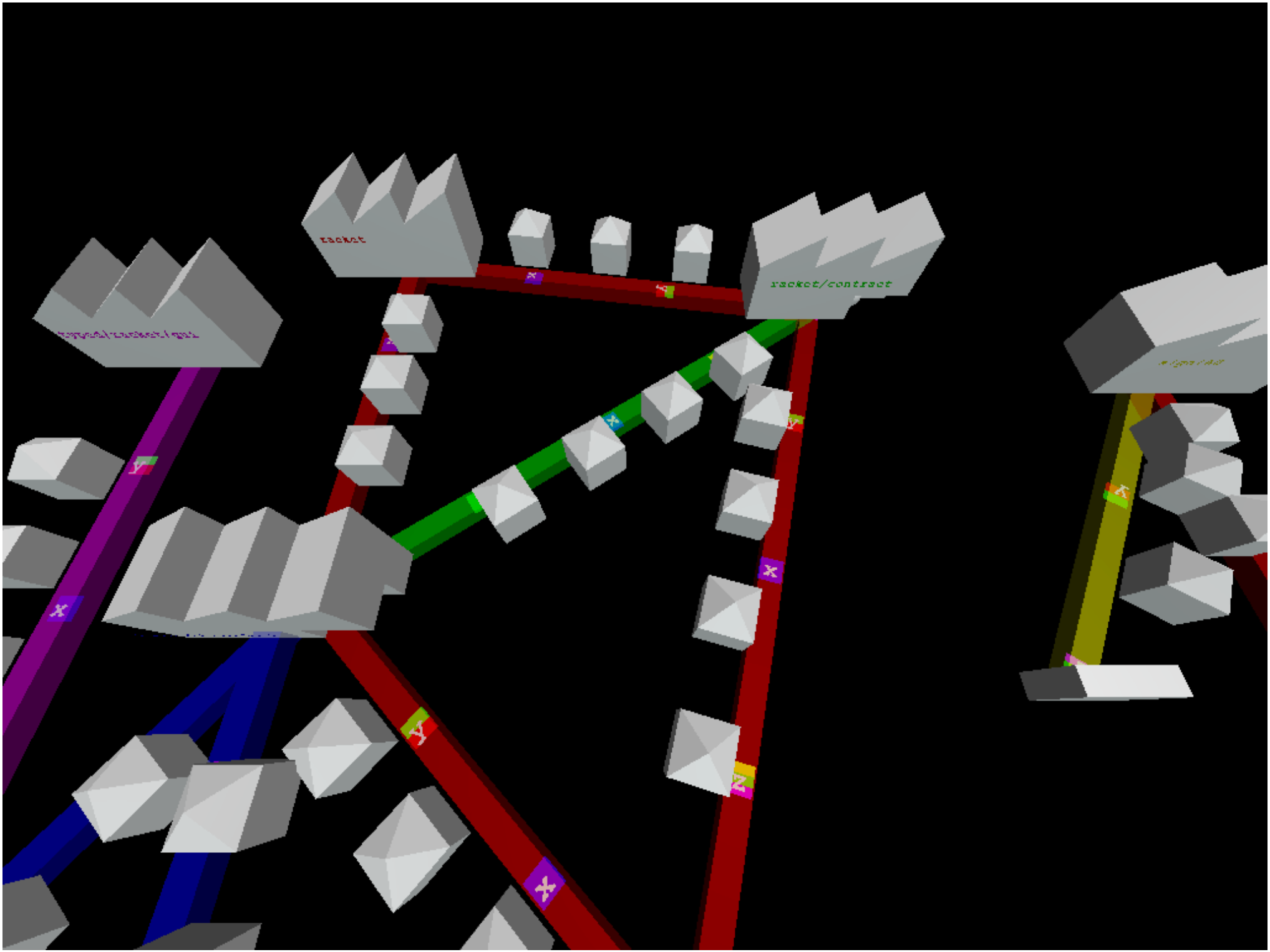
racket/contract
algol60
typed/racket







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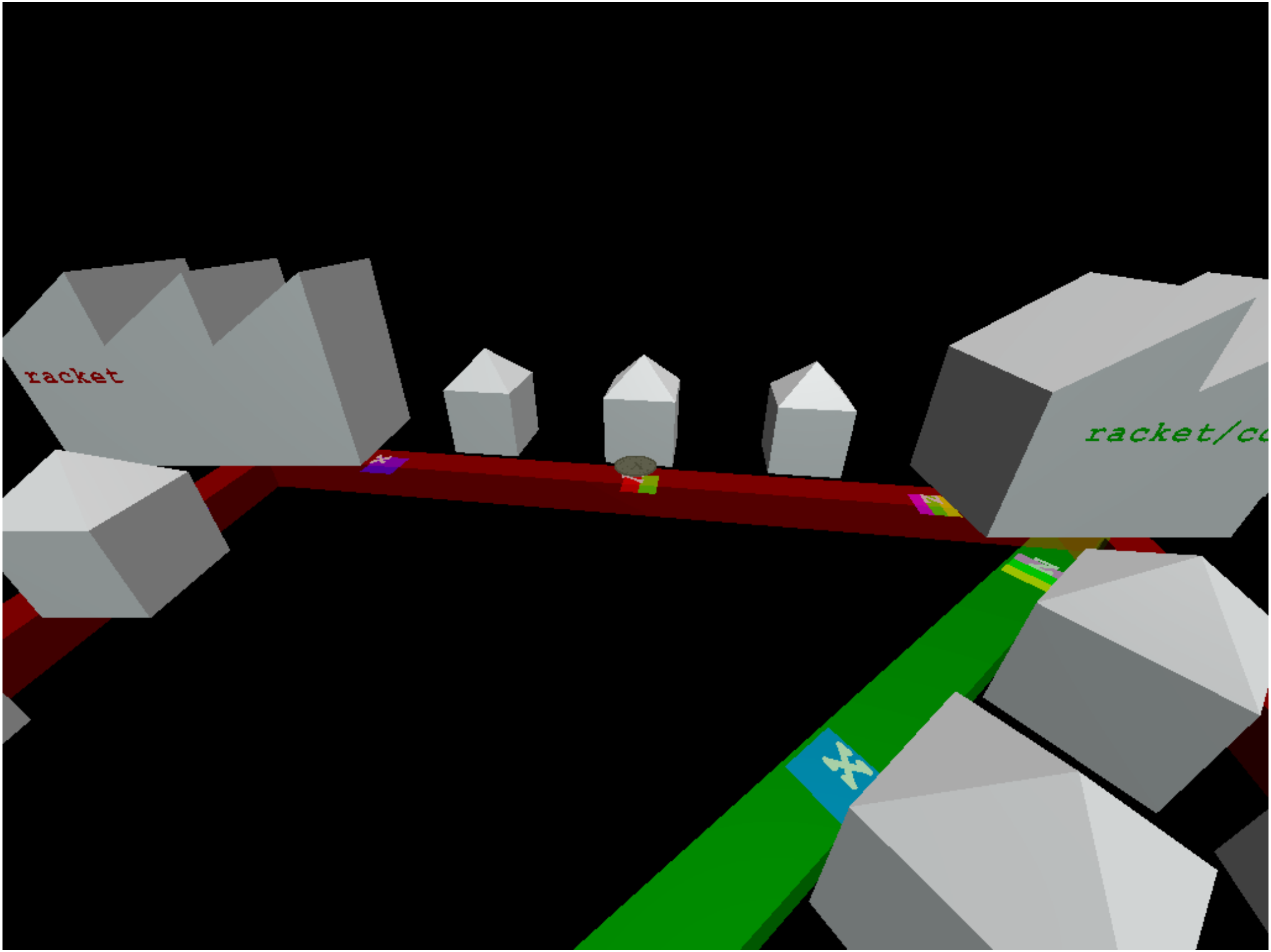
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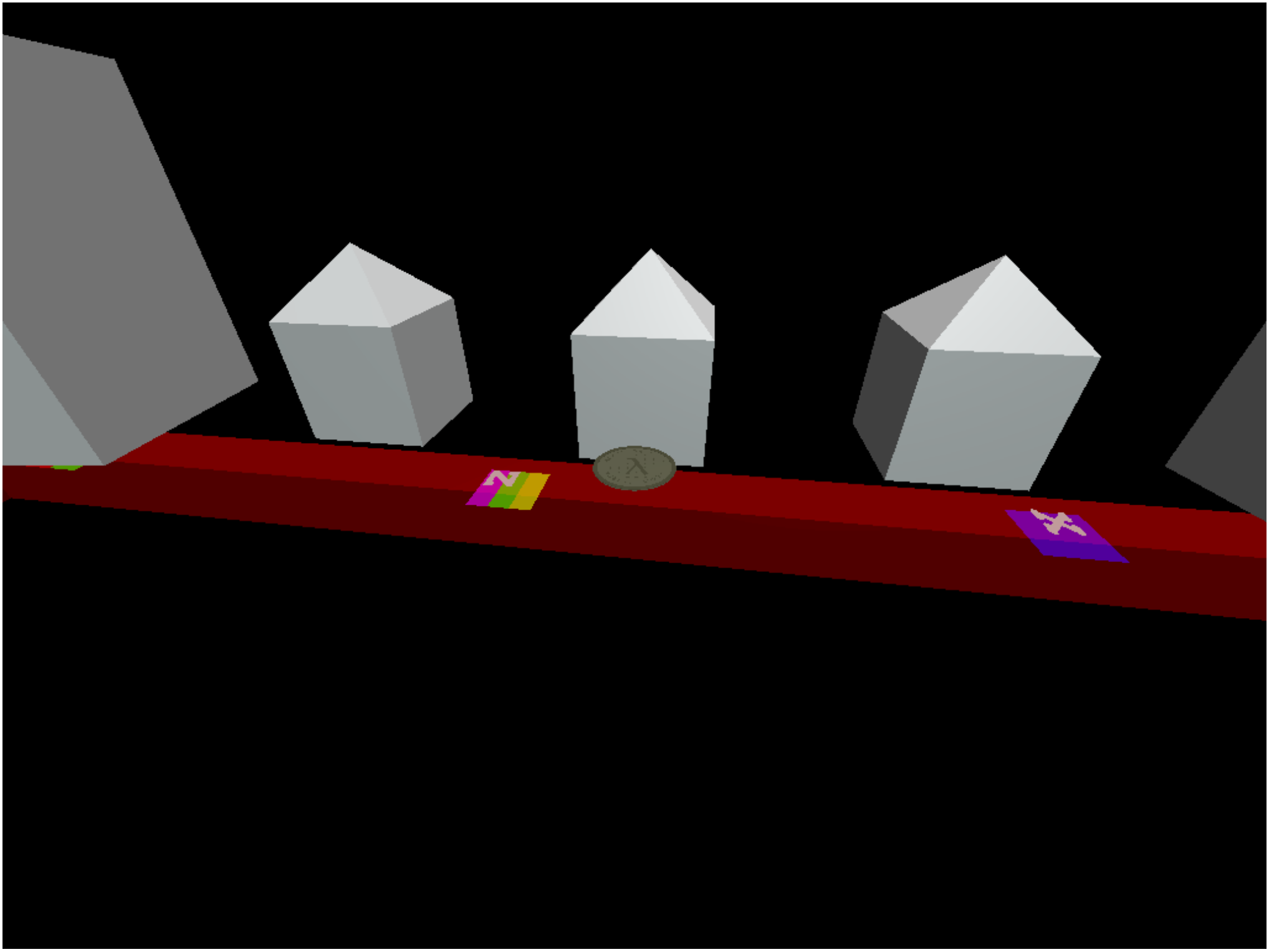

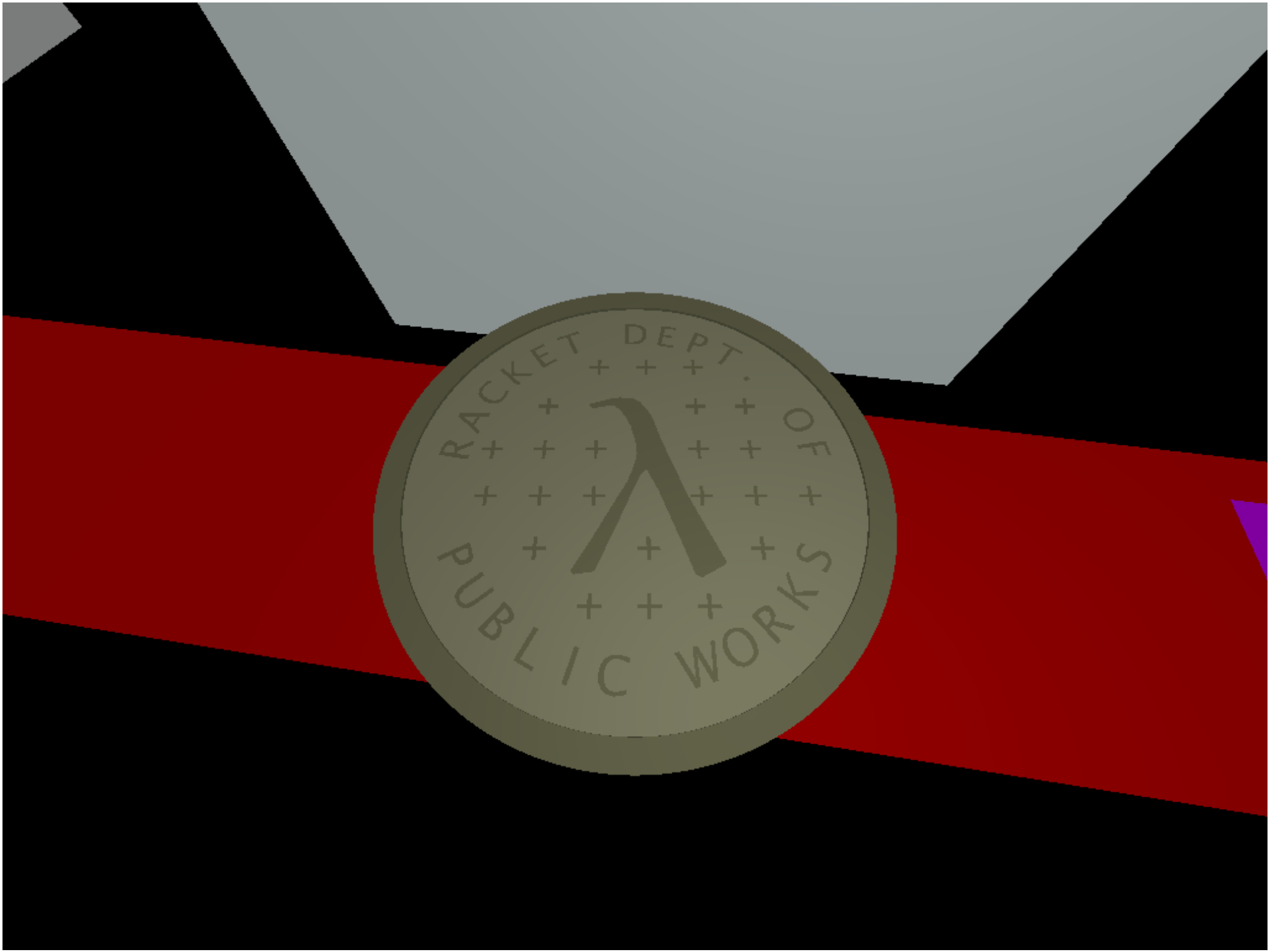
RACKET DEPT. OF
PUBLIC WORKS