Hierarchical Modelling

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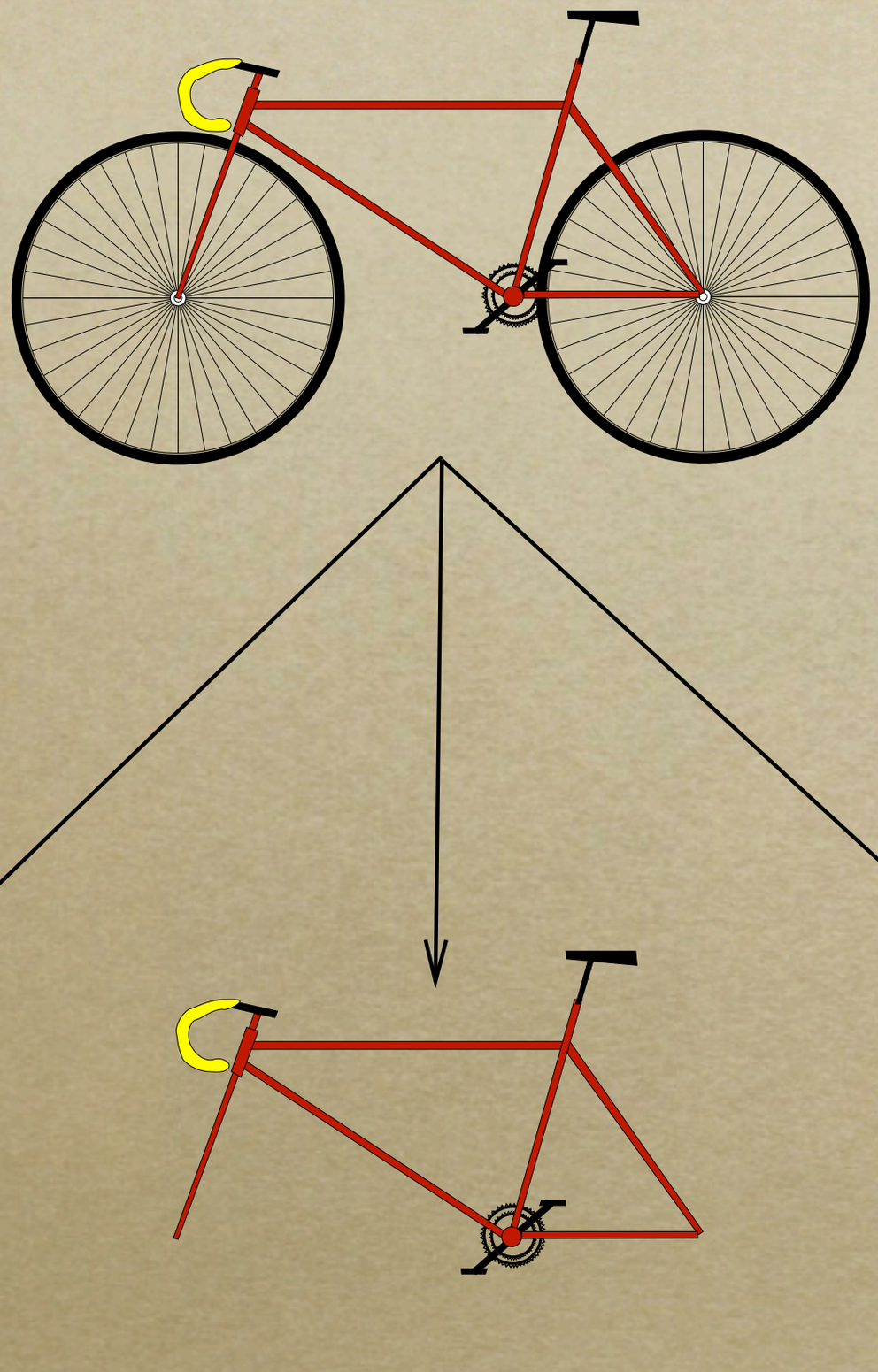

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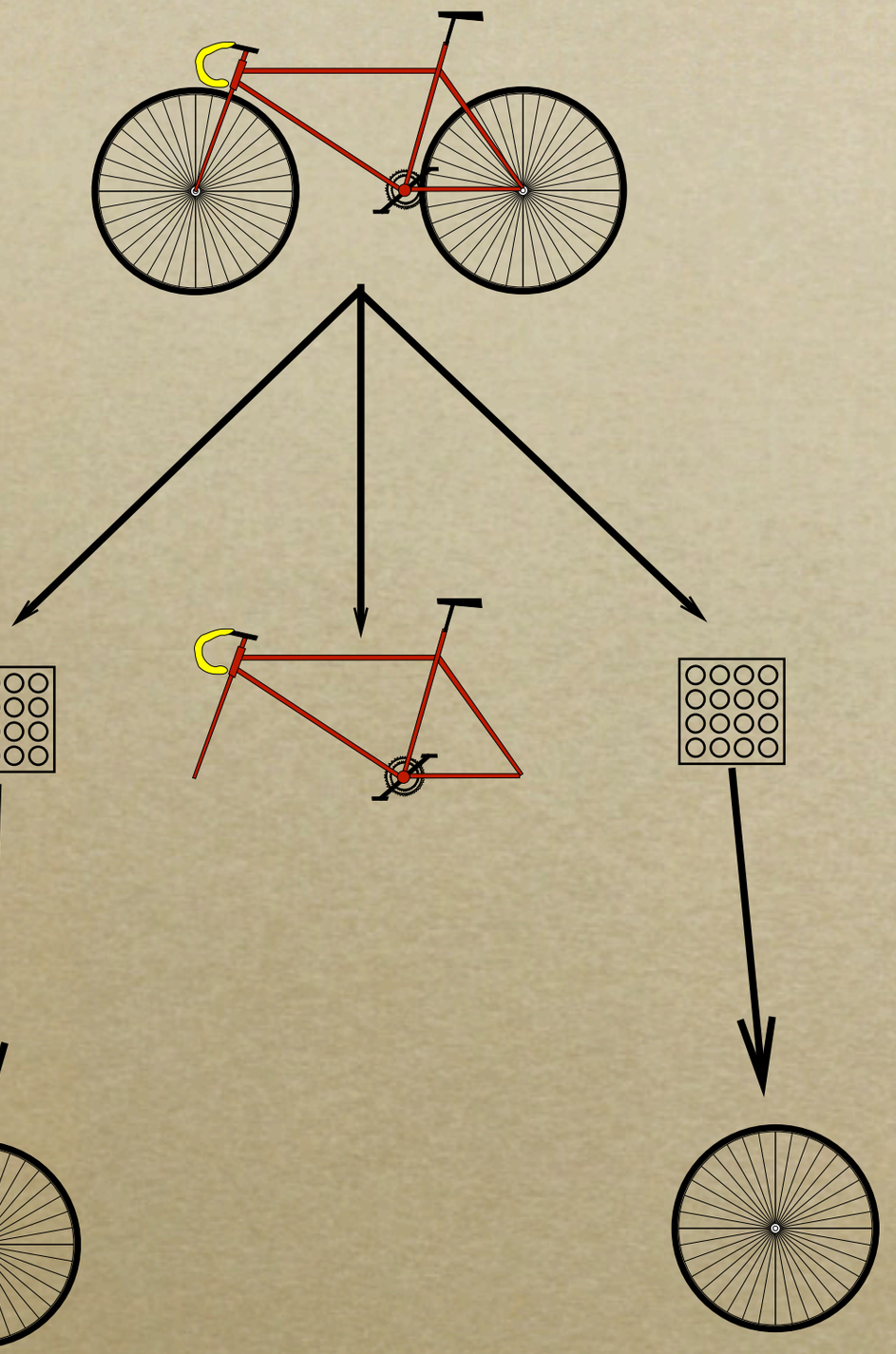

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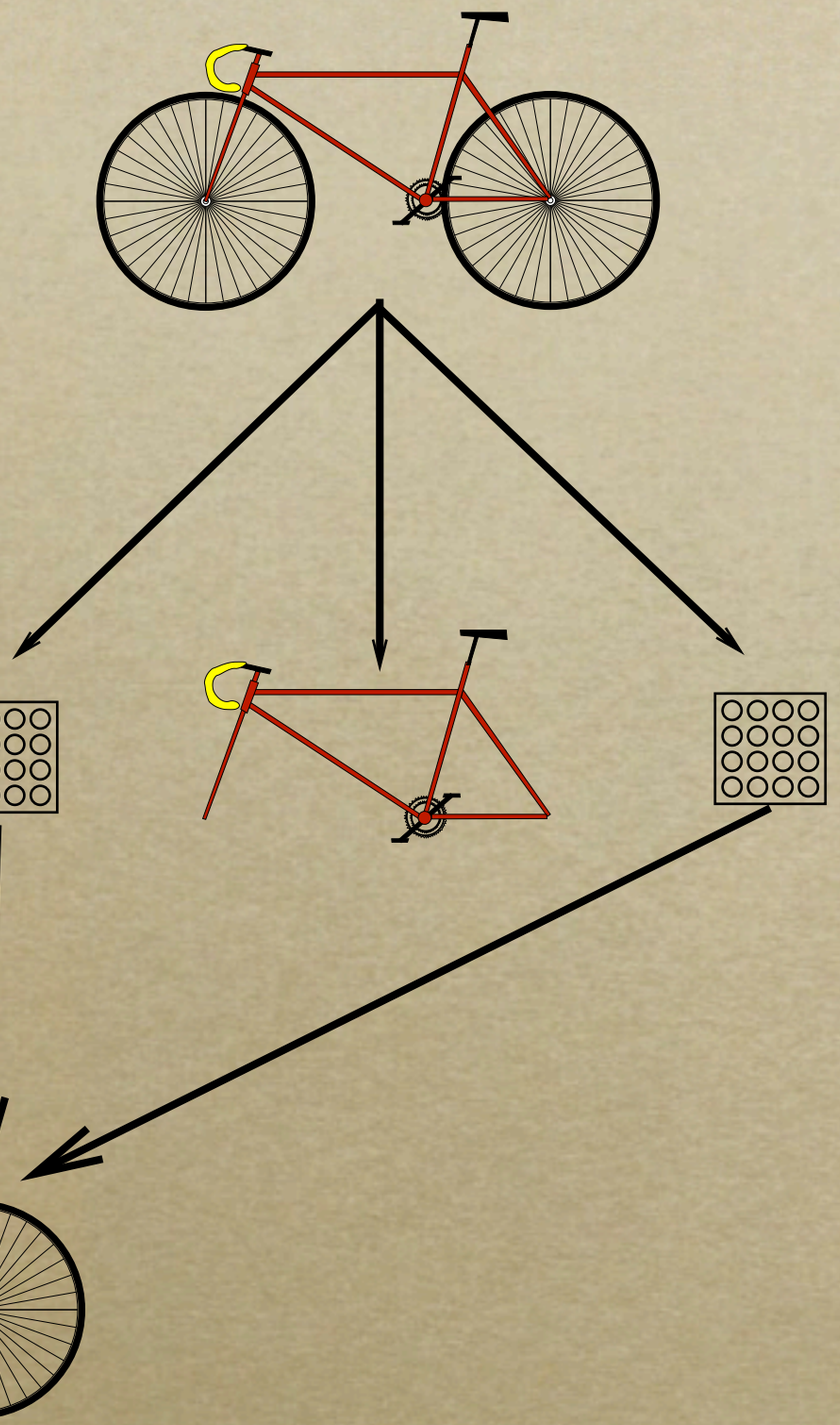
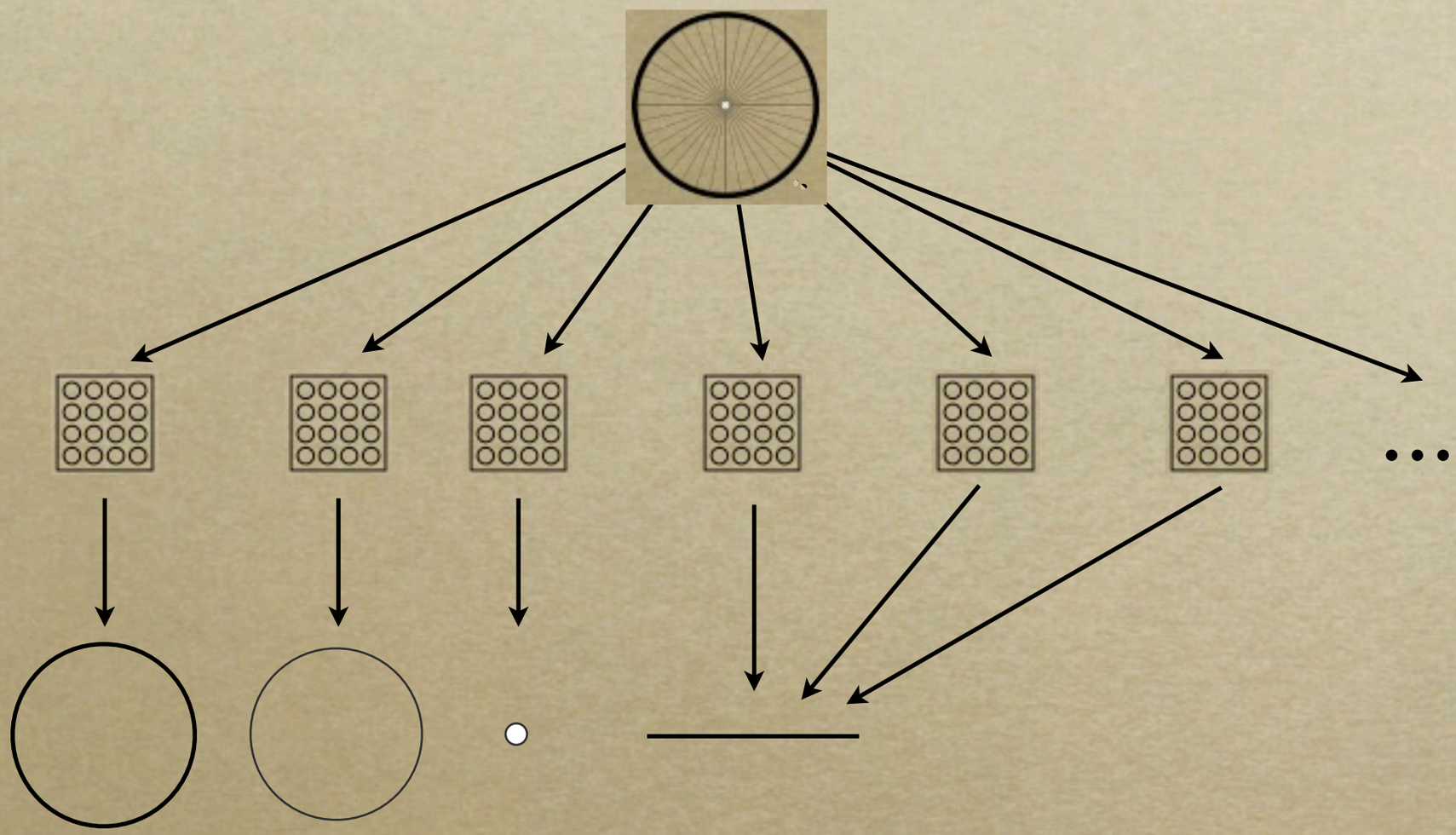
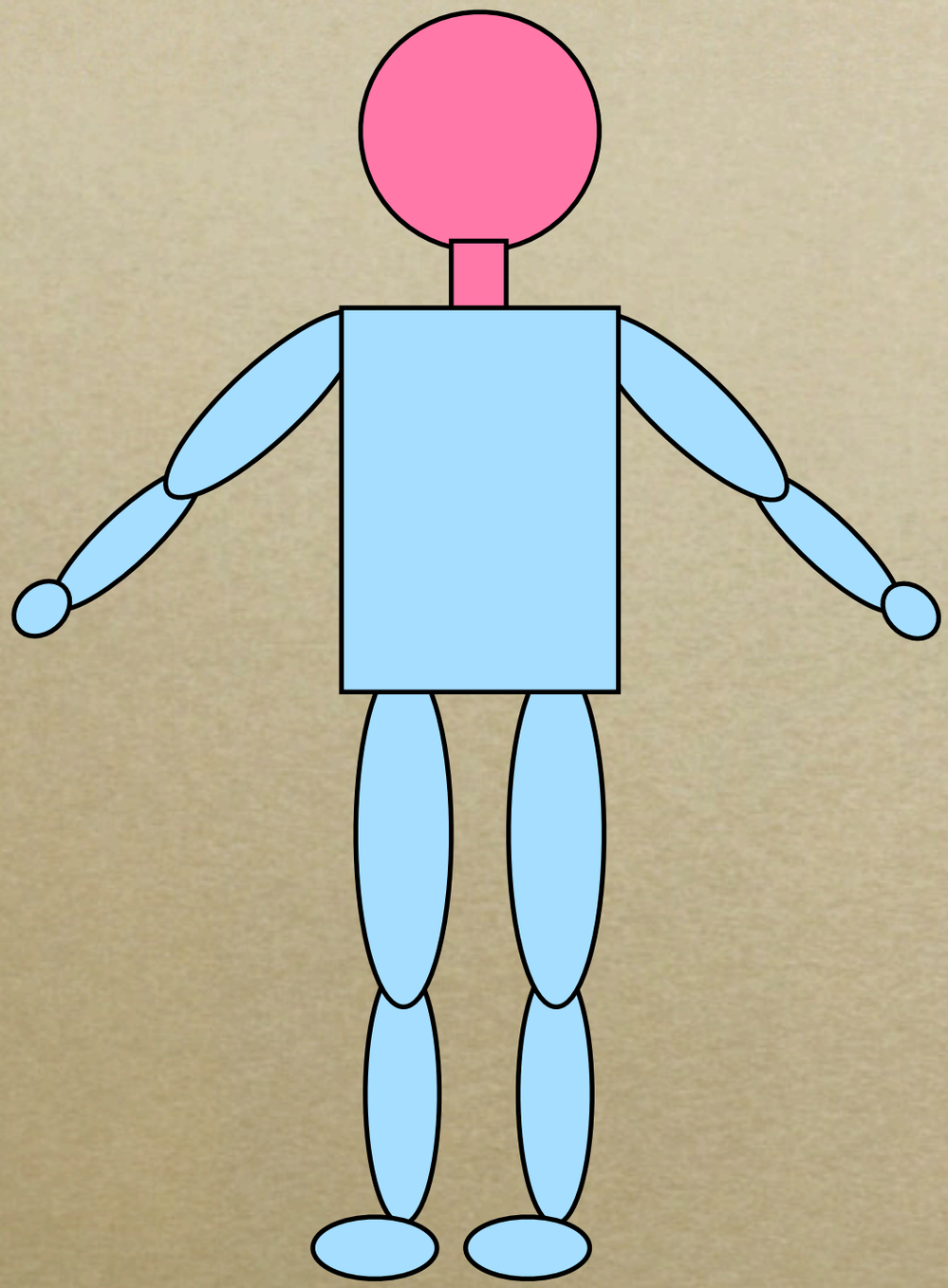
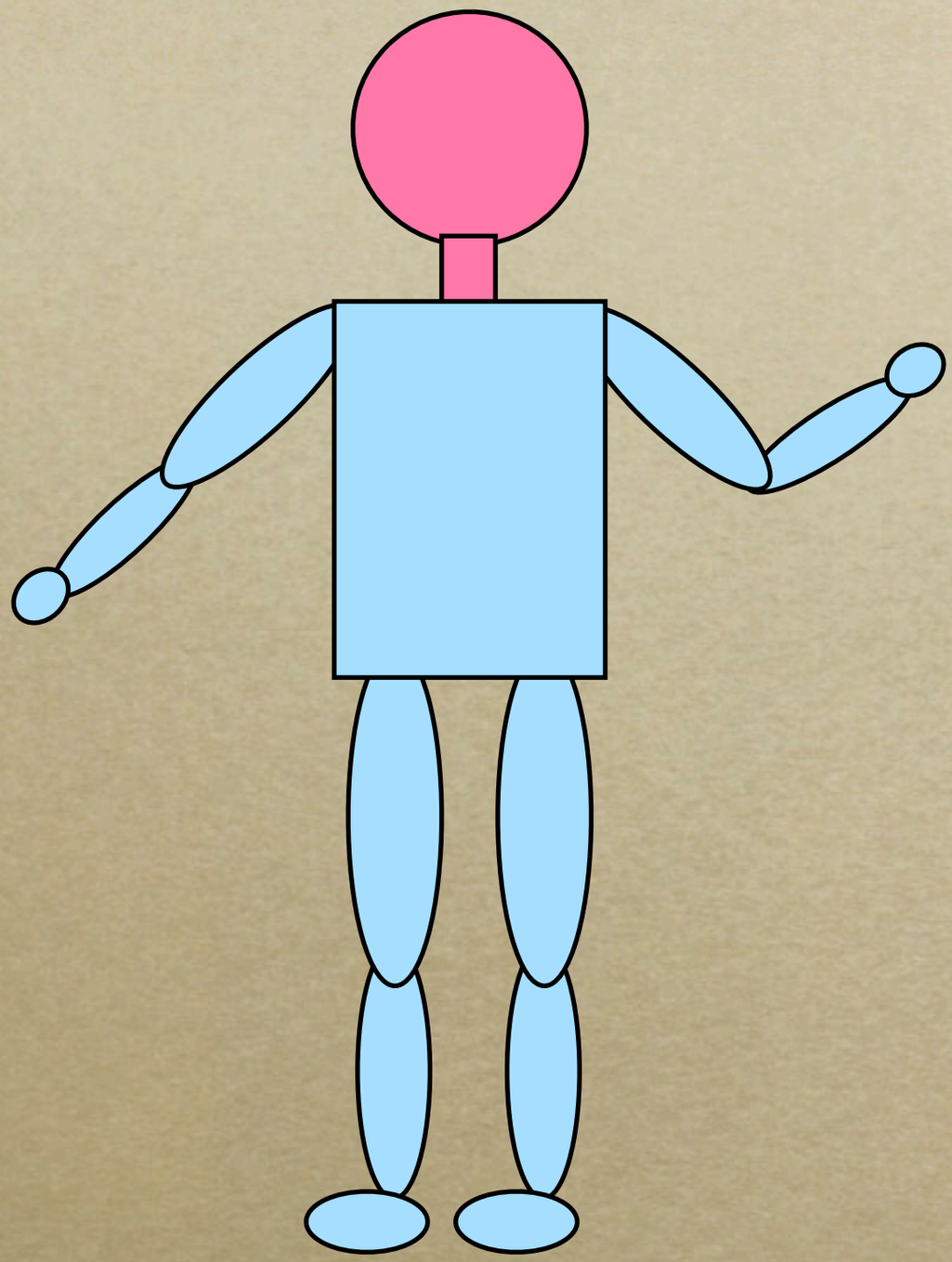
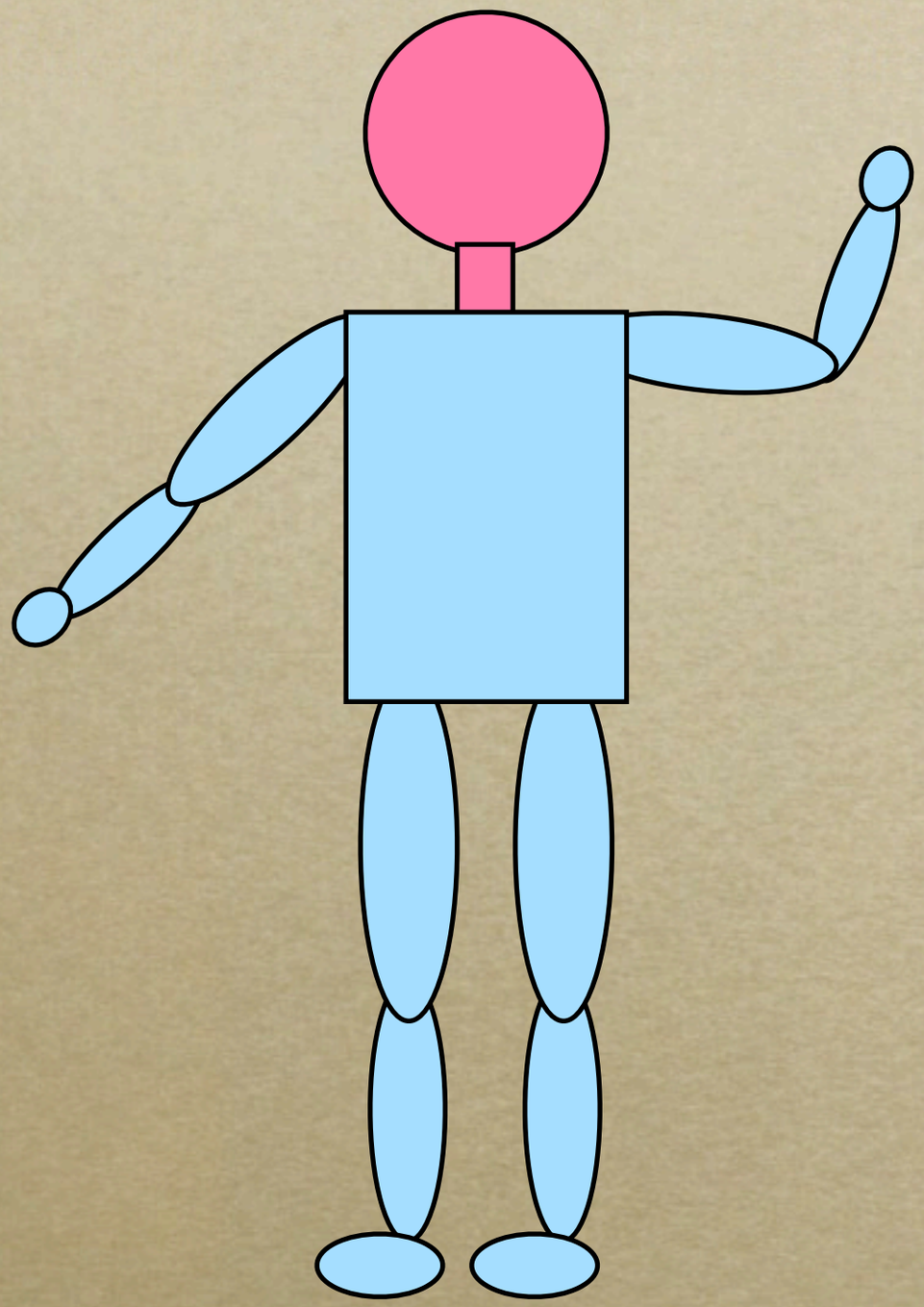


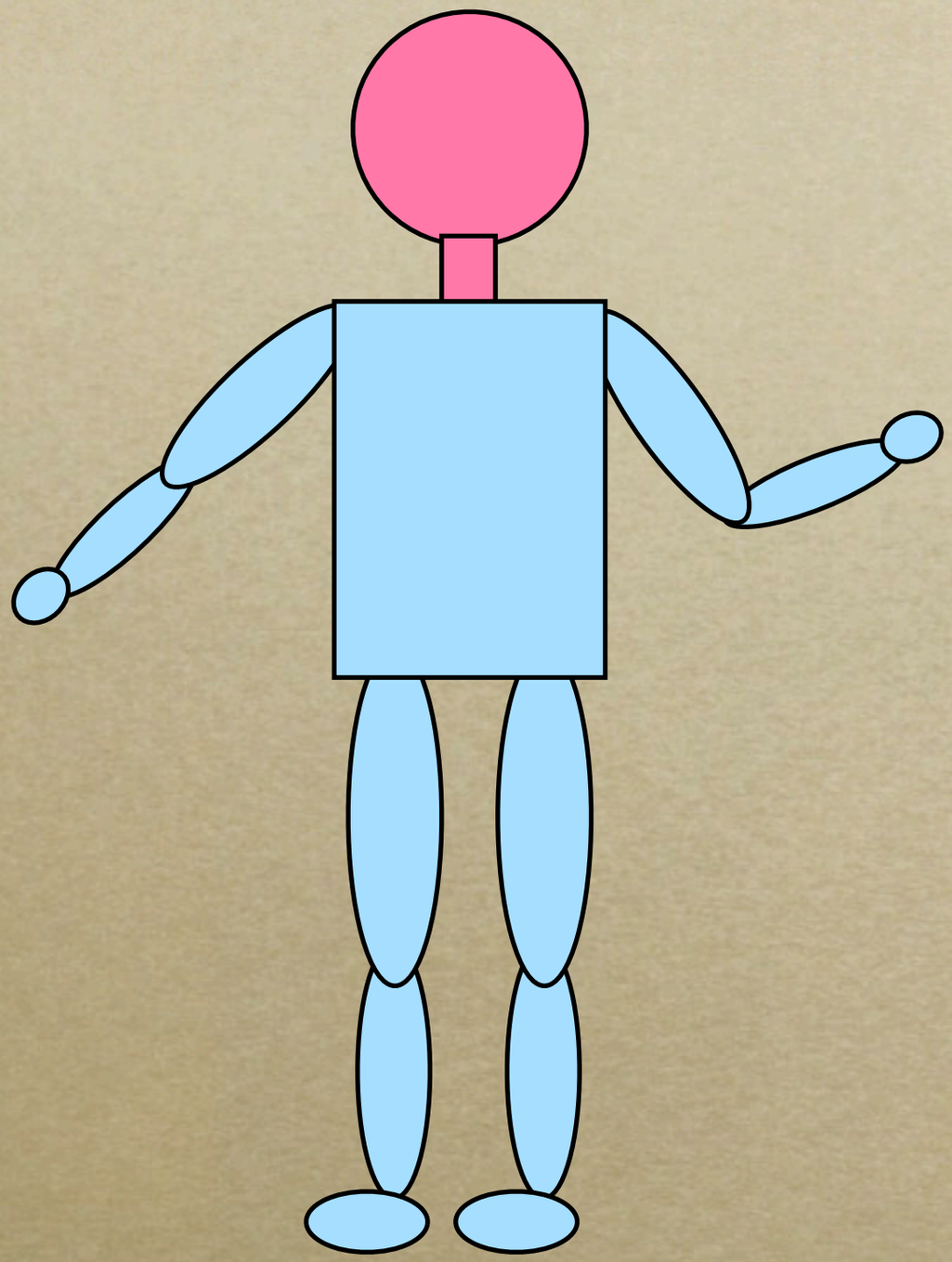
Even the wheel ...











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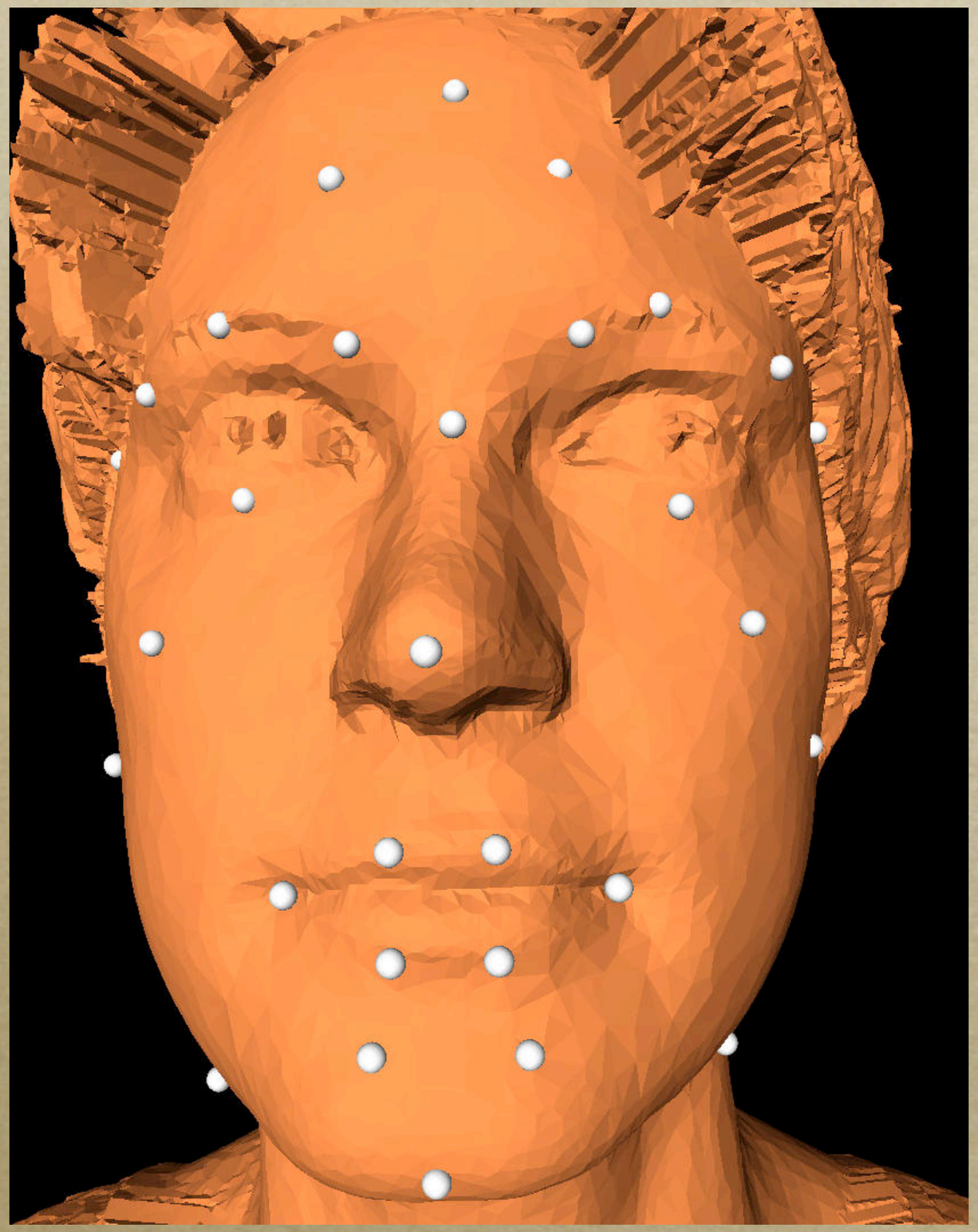
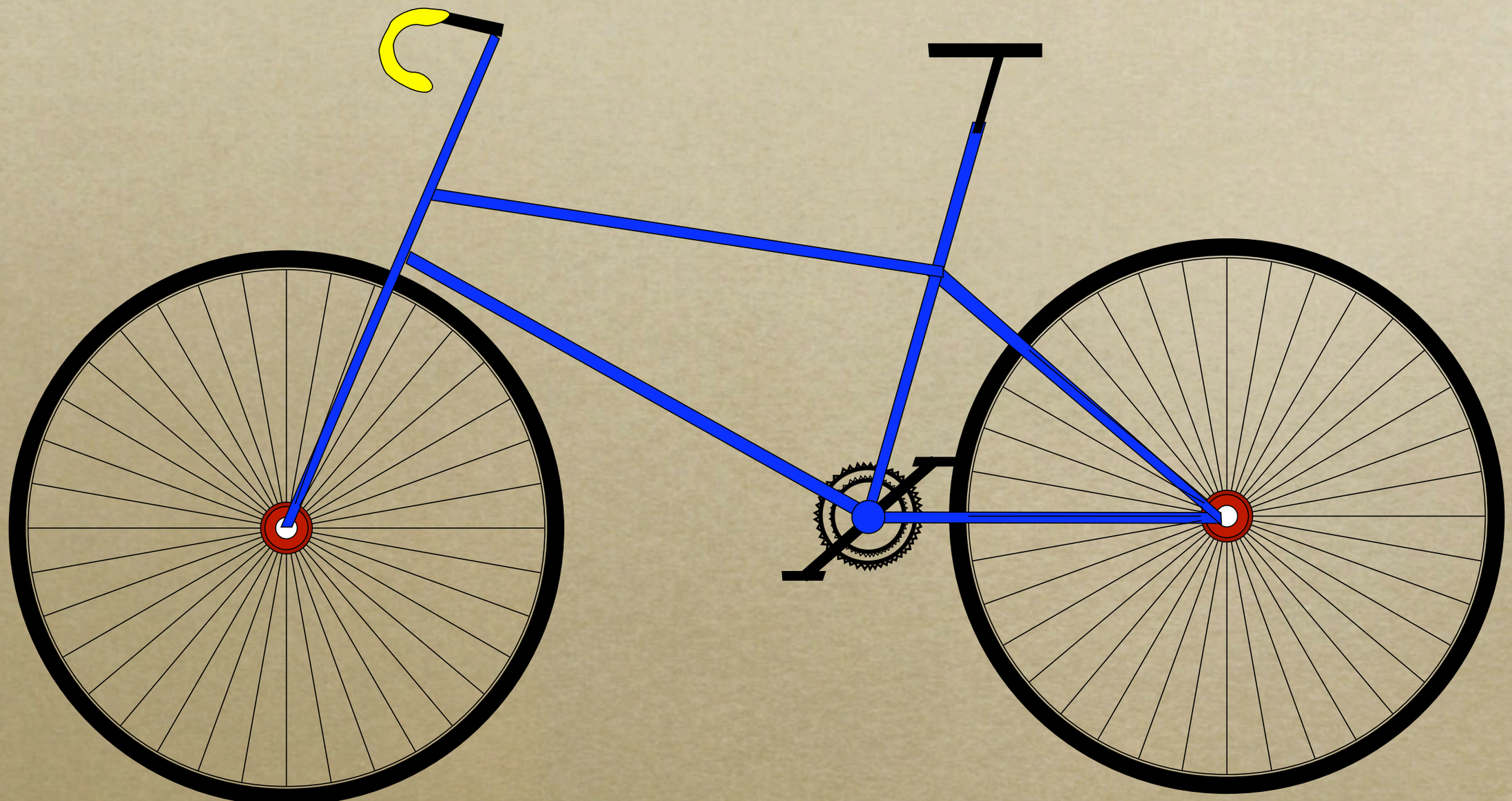


Parametric Models

- bikeframe(gender, colour, size)
- wheel(radius, hub width, hub radius, tyre width, material, number spokes, ...)
- axle(wheel1, wheel2, Tyre1Rot, Tyre2Rot, roll, yaw)
- Sphere(radius, centre)
- Door(isopen)

Parametric Modelling



Parametric Modelling

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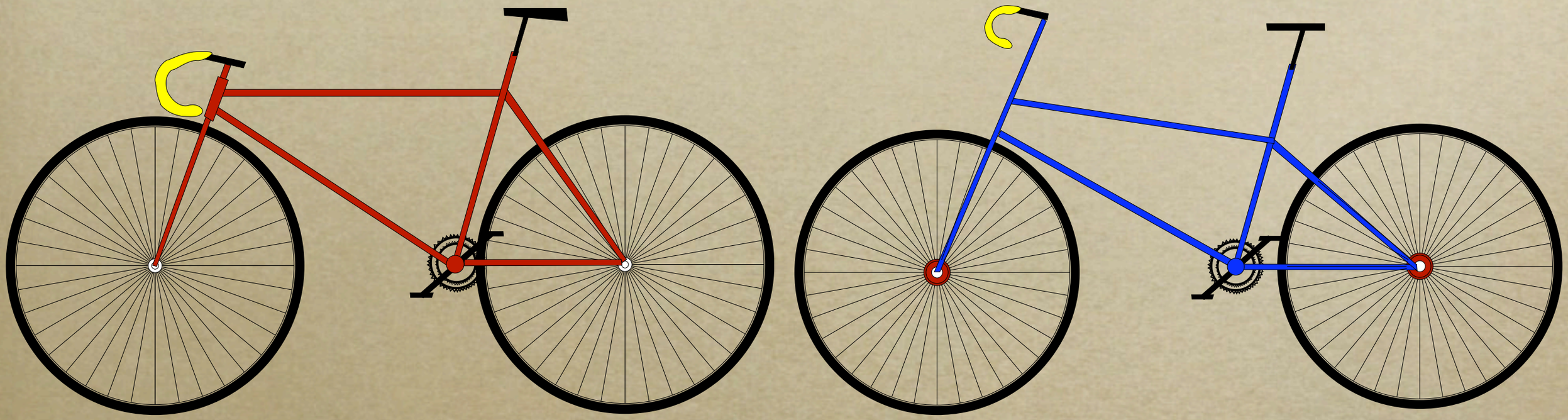


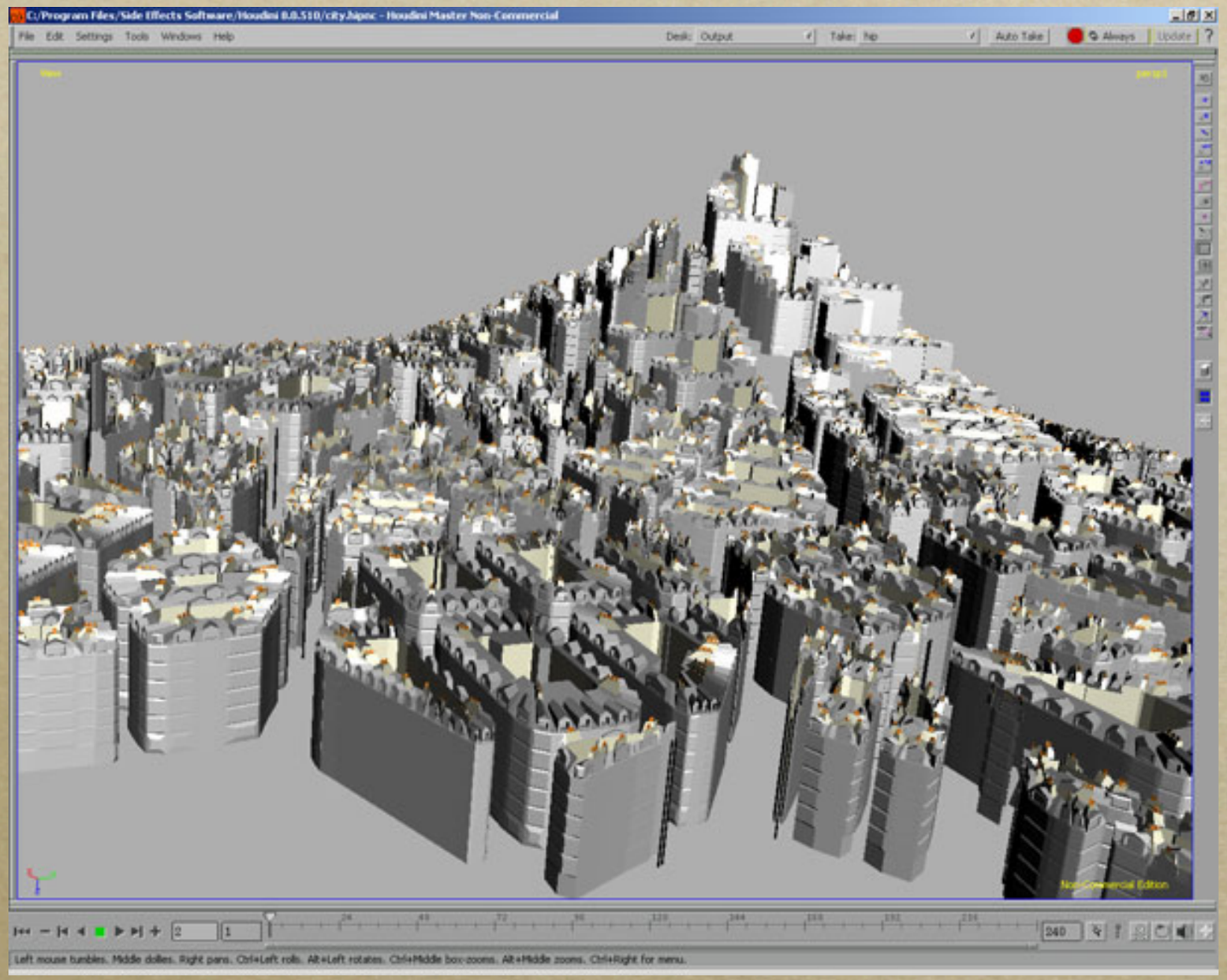
- *What would be some good parameters?*

Parametric Modelling
Pros and Cons

- ✓ *Higher level of control*
- ✓ *Multiple levels of control*
- ✓ *More intuitive space*
- ✗ *Must map parameters to geometry*
- ✗ *Extra level of processing*

Procedural Modelling

- *Similar to parametric. Often used in conjunction.*
- *Geometry generated by a procedure, often with parameters*
- *E.g., generating the spokes of a wheel:*
  - *A procedure generates spokes by rotating in 10 degrees increments*
  - *A parameterised procedure would have n spokes*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