2.0 Mesh Creation & Editing

1. **Start a new session** (Ctrl-N)

2. **Select the cube** (RMB)

3. **Enter Edit mode** (TAB-key) entering edit mode, all vertices are selected (orange).

4. **Set up view:**
   - NUM-3 to select right-side view
   - NUM-5 to select perspective view (if not already selected; see label in upper left corner)
   - CTRL-SPACE to disable manipulators (if they are showing; they are by default)

5. **Select top vertices/face of cube** (there are several ways to do it):
   - **A-key** to deselect all vertices (A-key again toggles select-all)
   - Box Select Tool: selects things that lie in a rectangular rubber-band region. B-key to activate. Two dashed gray lines should appear, one vertical and one horizontal, forming a crosshair in the viewpoint. LMB-drag diagonally across the area you want to select. Note: only selects visible vertices.
   - Circle Select Tool: C-key
     - Scroll-wheel to resize selection circle; LMB-drag to select
   - Lasso Select Tool: selects things you draw a loop around
   - CTRL-LMB to activate, drag lasso around vertices, then release LMB
   - Individual select: RMB then SHIFT-RMB on each vertex
   - Face-select mode:
     - Click “Face Select” icon in 3D view “header” (at bottom of screen):

   ![Face Select Icon](image)

   - RMB on the cube’s top face (remember, selection is RIGHT Mouse Button...)

6. **Extrude the top face**: E-key
   - Duplicate face is created but is coincident; move mouse to extrude then LMB to accept
     - Note: RMB to reject still retains duplicated (coincident) face; use X-key to delete “current selection”

7. **Extrude the bottom and two side faces of the bottom cube**:
   - Still in “face mode”, RMB then SHIFT-RMB to select the side and bottom faces of the bottom cube
   - ALT-E key to select extrude; select “individual faces” from the resulting popup menu
   - Drag to control extrusion amount

8. **Split the four arms in halves** using the Loop Cut Tool:
   - A-key to deselect everything
   - CTRL-R to activate loop-cut mode
   - Move mouse over cubes to show where loop cuts would be made; LMB to select, move mouse to position for the cut, LMB again to cut.
   - Repeat for all four arms

9. **Scale outer edges of arms smaller**:
   - A-key to deselect everything
   - B-key for box-select tool; drag around four vertices of one arm end
   - S-key to activate scale mode; drag to reduce arm end size; LMB to accept
   - Repeat for all four arms

10. **Scale inner edges of arms**:
    - Same procedure as above: use box select to select all inner vertices, S-key to scale (Note: it is important to be sure all inner vertices are selected; use MMB-orbit to move view around; SHIFT-RMB to add vertices that were missed.)

11. **Add bevels to all edges**
    - Select object mode in the 3D window (TAB or use drop-down in header bar)
    - Select entire object: RMB on the object
    - In the Edit window, select the Modifiers context button
    - Click Add Modifier and add a bevel modifier

12. **Apply smooth shading**:
    - Select object mode in the 3D window
    - Select entire object: RMB on object
    - Display the Object Toolshelf (T-key) if it is not already visible on the left side of the 3D View
    - Under Shading in the Object Toolshelf, click Smooth