

Explanations and comments

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1 Problem 1

Designed a spaceship according to .jpg file. Added right tail, right and left stands, right and left vents, right and left flanks. All new parts are created in reference to left tail position. Coloured vents to cyan, flanks to yellow, stands to cyan.

- 1) Coloured the top and bottom main part to deep burgundy, and also right and left tails.
- 2) Added the "nose" to the spaceship (called front in the code), coloured to yellow.
- 3) Removed the spaceship in the final position, wrote the animation of movement from starting position to final position.

2 Problem 2

Designed a modified version of robot arm:

- 1) Changed the base link 0 from cylinder to box(to improve stability).
- 2) Changed the link 1-2: created a prismatic joint 12, which slides along x axis. Added the movement of joint 12 to separate joint animations and all joint animation.
- 3) Removed link 1-3
- 4) Changed the link 2 from cylinder to sphere.
- 5) Added link 2-3: created a revolute joint 23. Joint 23 is sphere, which rotates itself and following links. Added the movement of joint 23 to separate joint animations and all joint animation.
- 6) Decreased the radius of cylinder in link 3-2 to 0.006.

In addition, I changed the colors of all links to deep burgundy and yellow except link 4 and end effector. I also changed positions to some links to accommodate changes. Changed the y axis upper bound from 0.4 to 0.5.