

Morphle Design Thinking:

- Open the assembly file Interview.sldasm.
- Design a **Cam** to move the mass 'm' such that it will provide a constant motion ratio between the mass and the driving element 'Nut'.
- As seen in drawing, a constant motion ratio throughout the profile of the cam will also mean that the ratio of velocities will also be constant. Hence if constant linear velocity is provided by the motor to the nut, the output velocity of the mass will also be constant.
- The resulting motion ratio should be constant at **1:10** i.e. when the nut moves by 10mm, the mass should move in the same direction by 1mm. **Make sure this condition is satisfied by the part you design by testing it in the assembly.**
- The cam profile should be sufficient as to allow motion of the lever by 45 deg in the upward direction, starting from a horizontal direction.
- Try to make the overall size of the cam as small as possible.
- Keep the thickness of the part to be 10mm.
- Assemble your part in the assembly given and the zip back to us.

