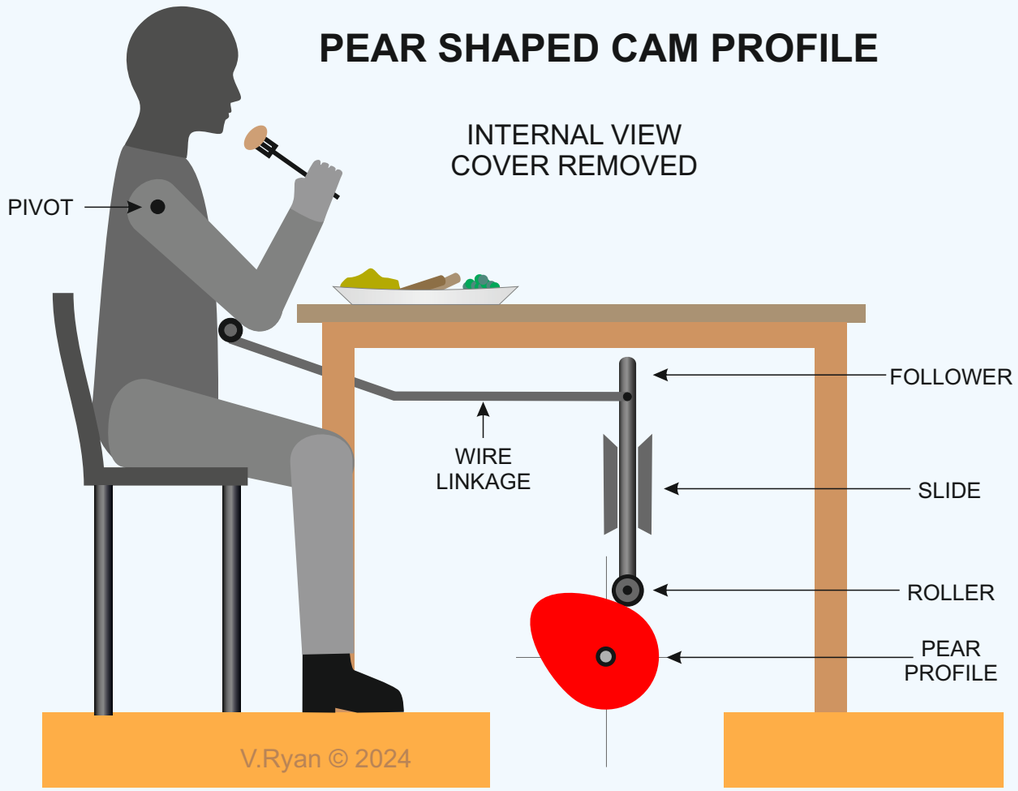
COMMON CAM PROFILES

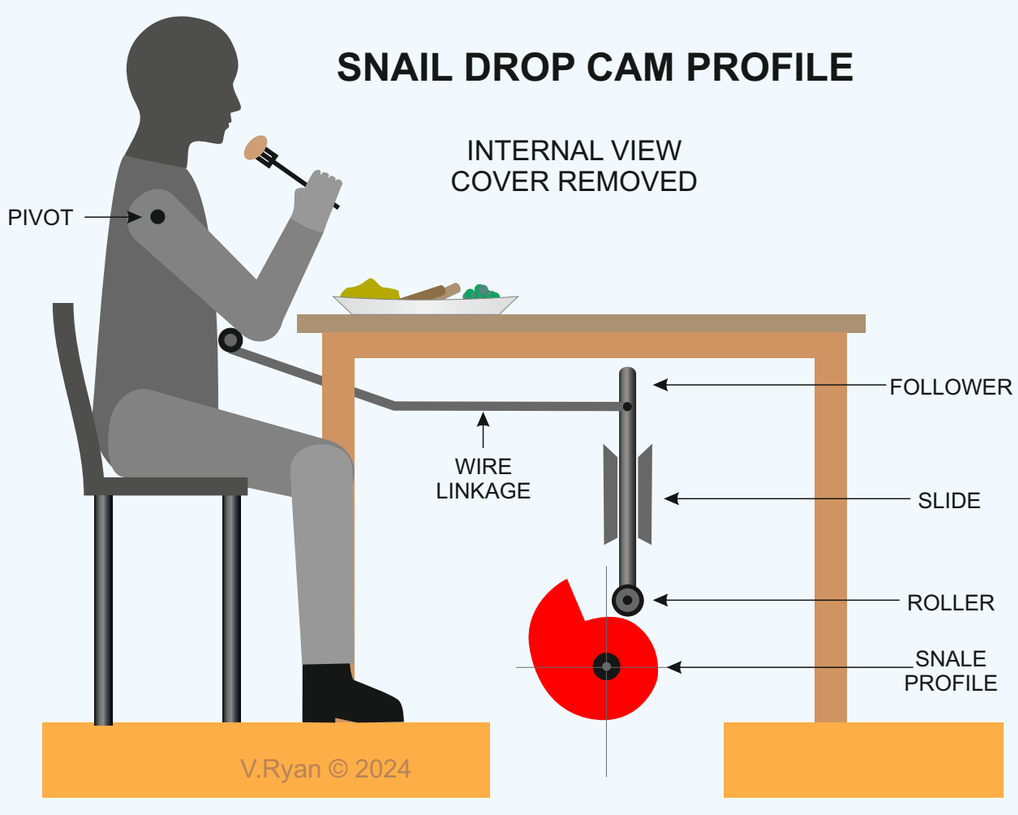


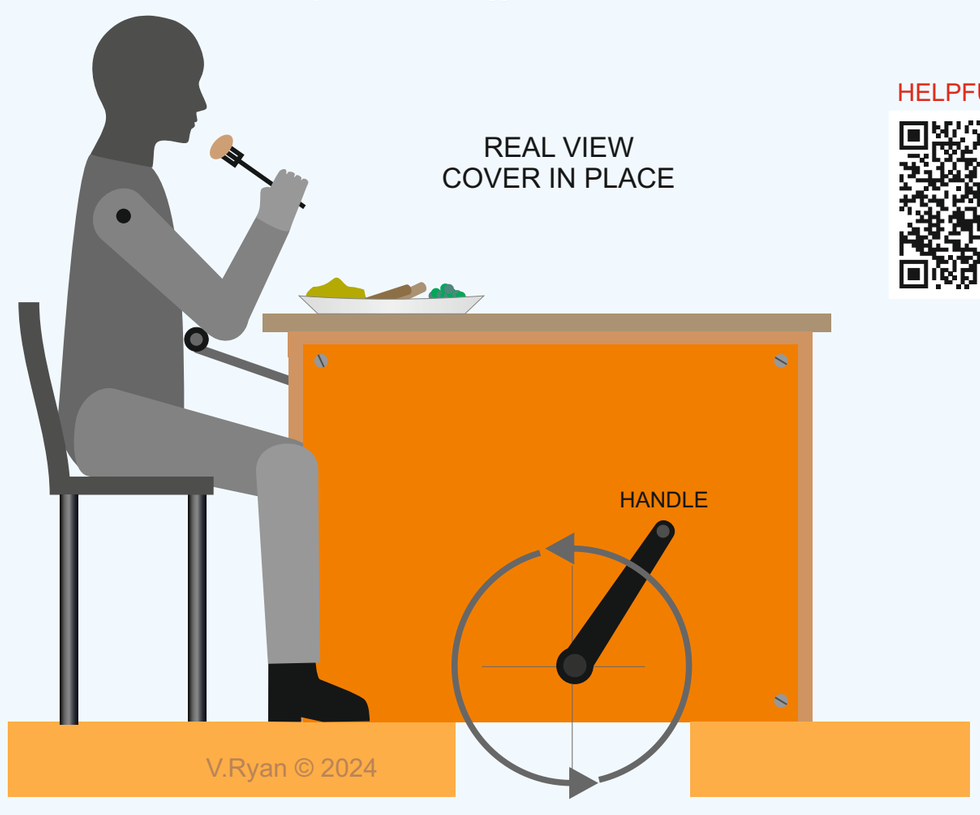
The toy is operated manually by turning a handle (see below). This turns the cam profile, lifting the arm and food towards the 'models' mouth. Installing different cam profiles, gives a slightly different movement of the arm.

The pear shaped cam profile allows for a smoother action as the arm rises and falls. However, for half the rotation of the cam, the arm stays in the same place. The snail profile allows for a smooth rise and a quick / sudden drop of the arm.

The advantage of a pear shaped cam, is that the handle can be rotated in both directions, because the arm lifts and falls smoothly. However, if a snail drop cam is fitted to the mechanism, the handle must be rotated in an anti-clockwise direction only. Otherwise it will 'jam'.

HELPFUL LINK: https://technologystudent.com/cams/camdex.htm





HELPFUL LINK

COMMON CAM PROFILES

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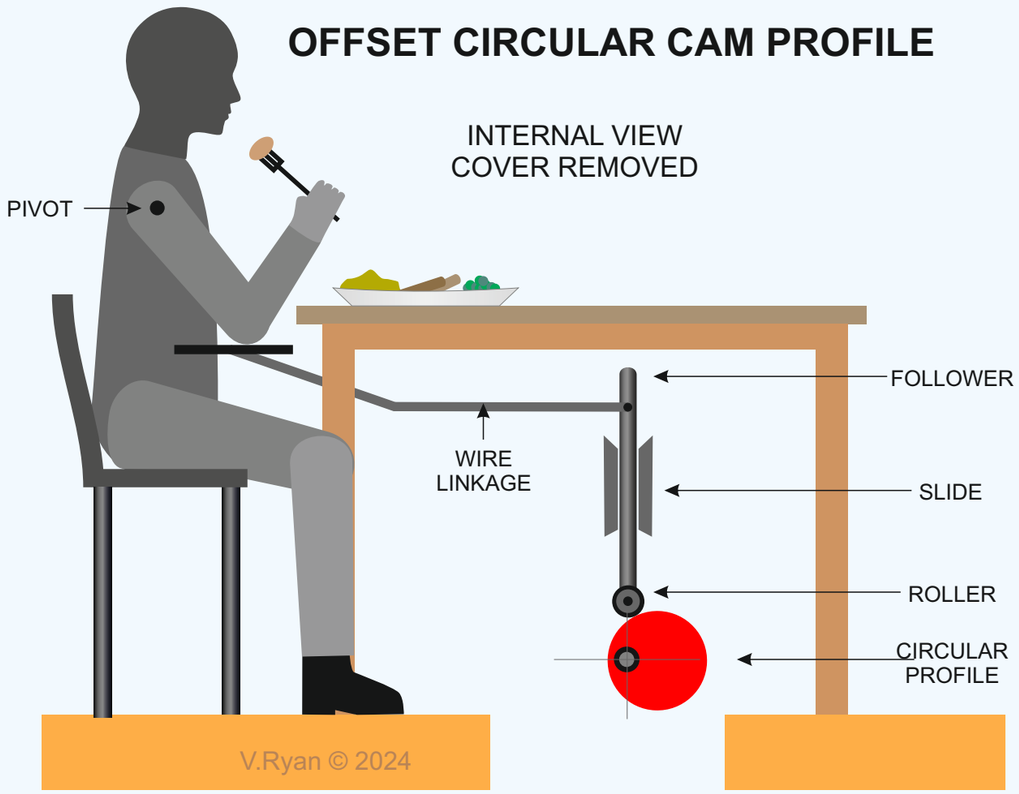
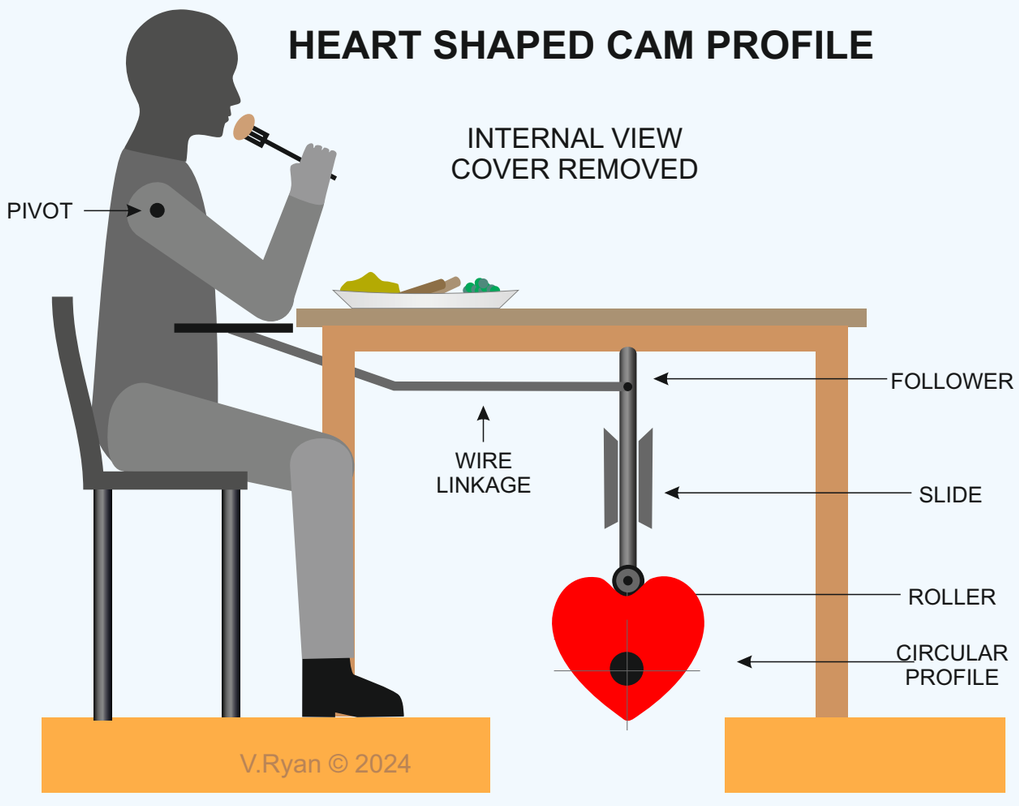
OFFSET CIRCULAR CAM PROFILE

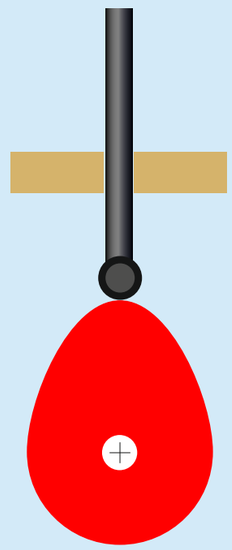


HEART SHAPED CAM PROFILE



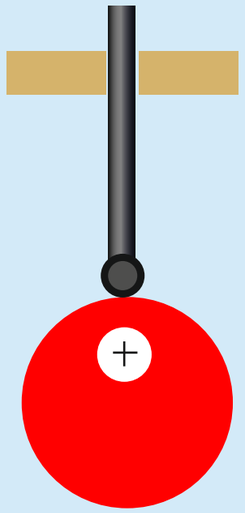
PEAR

Pear shaped cams are used on the shafts of cars. The follower remains motionless for about half of the cycle of the cam and during the second half it rises and falls



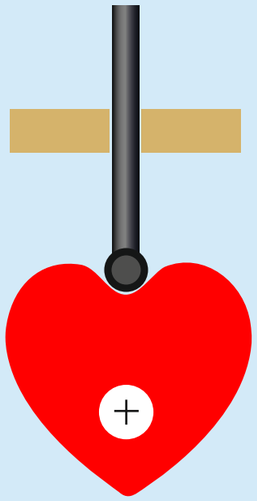
CIRCULAR

Circular cams or eccentric cams produce a smooth motion. These cams are used in steam engines.



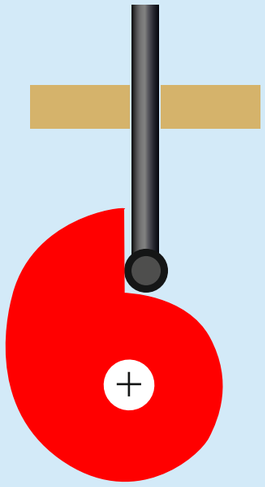
HEART

Heart shaped cams allow the follower to rise and fall with ‘uniform’ velocity.



DROP

What type of movement do you think this cam profile will give ?



Using an offset circular cam profile, means that alterations have to be made to the follower. The arm now rests on a ‘flat’ and the circular cam has been lowered. This cam gives a very smooth movement.

A heart-shaped cam profile looks like a heart. It results in a steady rise and fall motion and uniform velocity. However, when applied to this mechanical toy, it does not give a suitable movement of the arm.

HELPFUL LINK

HELPFUL LINK: https://technologystudent.com/cams/camdex.htm