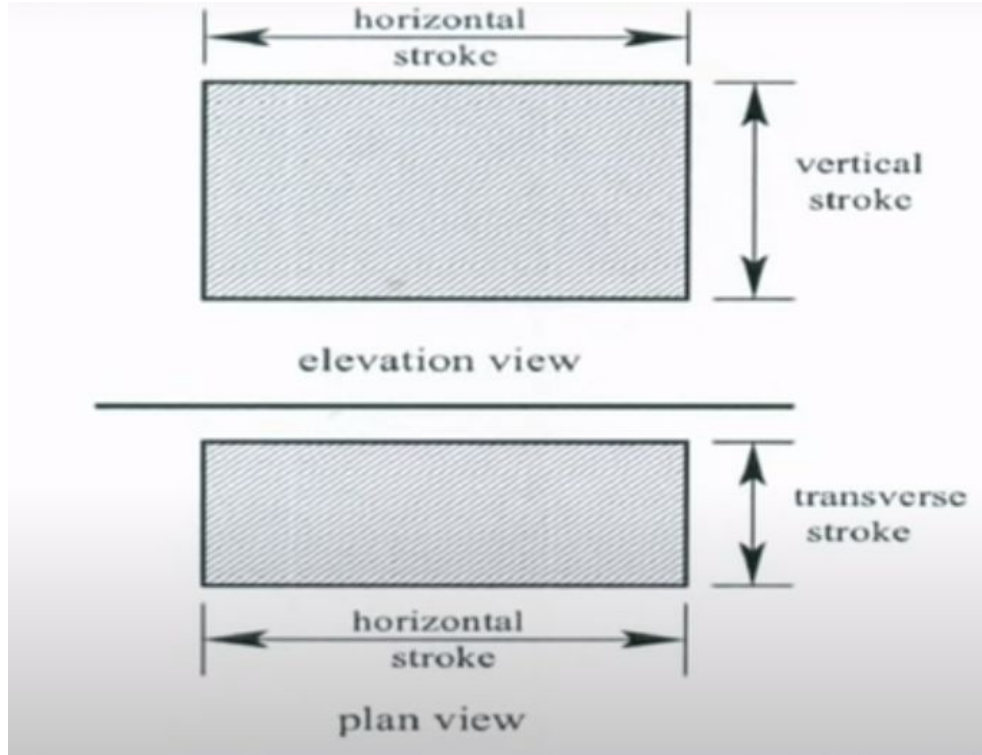
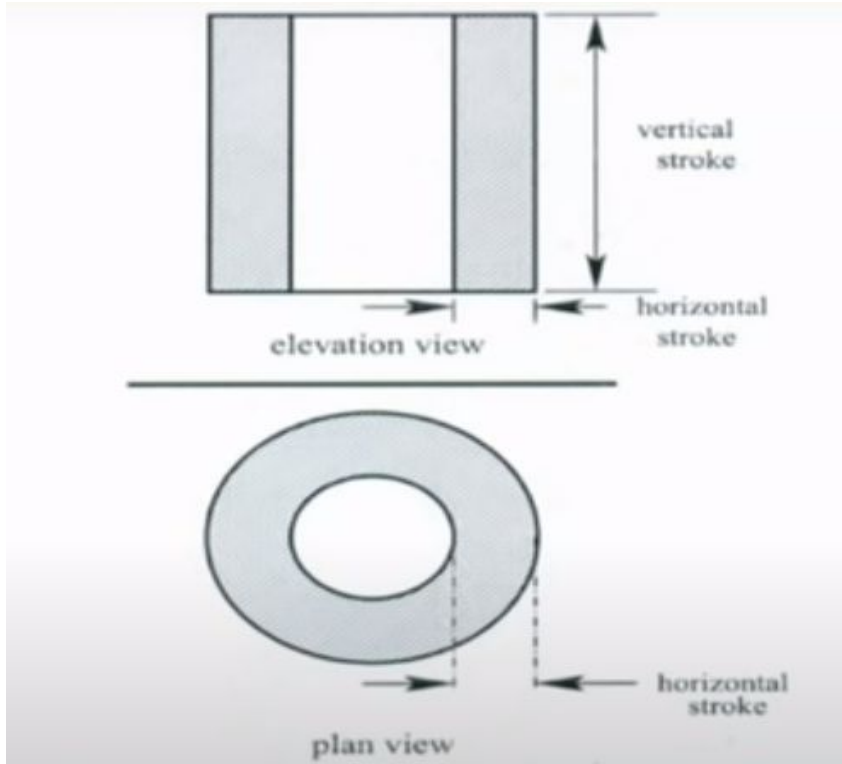


Introduction to robots and robotics

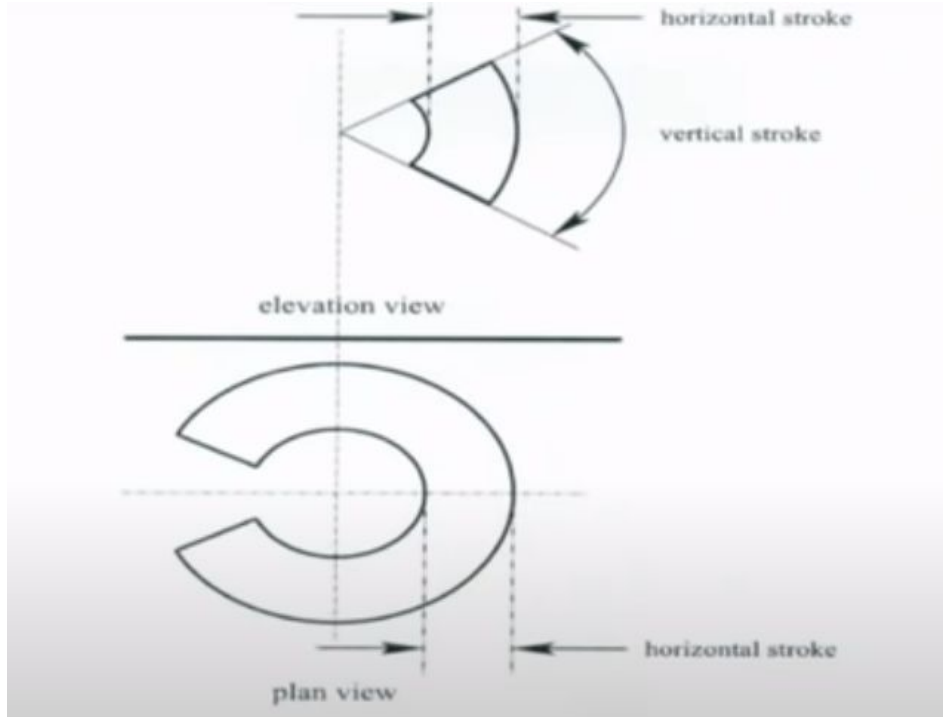
Workspace of Cartesian Coordinate Robot



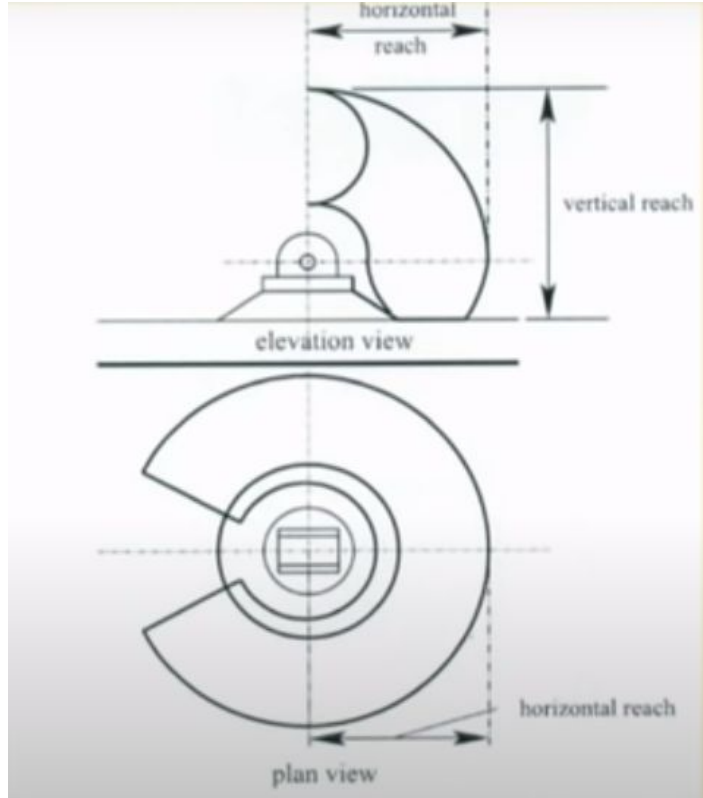
Workspace of Cylindrical Coordinate Robot



Workspace of Spherical Coordinate Robot



Workspace of Revolute Coordinate Robot



Resolution, Accuracy and Repeatability

Resolution

It is defined as the smallest allowable position increment of a robot

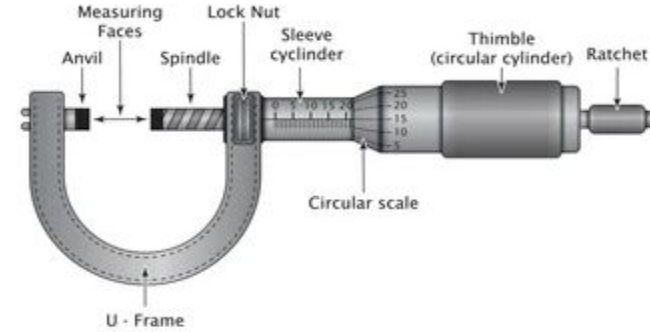
Resolution

Programming Resolution

Smallest allowable position increment in robot programme
Basic Resolution Unit
 $BRU = 0.01 \text{ inch} / 0.1 \text{ degree}$

Control Resolution

Smallest change in position that the feedback device can measure say 0.36
Degree per pulse



Micrometer



Resolution, Accuracy and Repeatability

Resolution

It is defined as the smallest allowable position increment of a robot

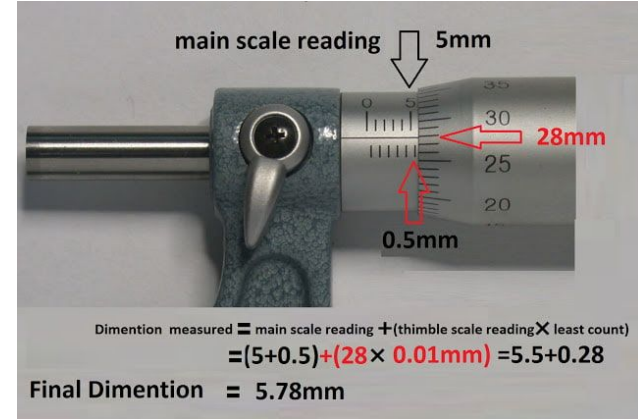
Resolution

Programming Resolution

Smallest allowable position increment in robot programme
Basic Resolution Unit
BRU=0.01 inch/0.1 degree

Control Resolution

Smallest change in position that the feedback device can measure say 0.36
Degree per pulse



Accuracy (mm)

It is the precision with which a computed point can be reached

Repeatability (mm)

It is defined as the precision with which a robot reposition itself to a previous taught point