



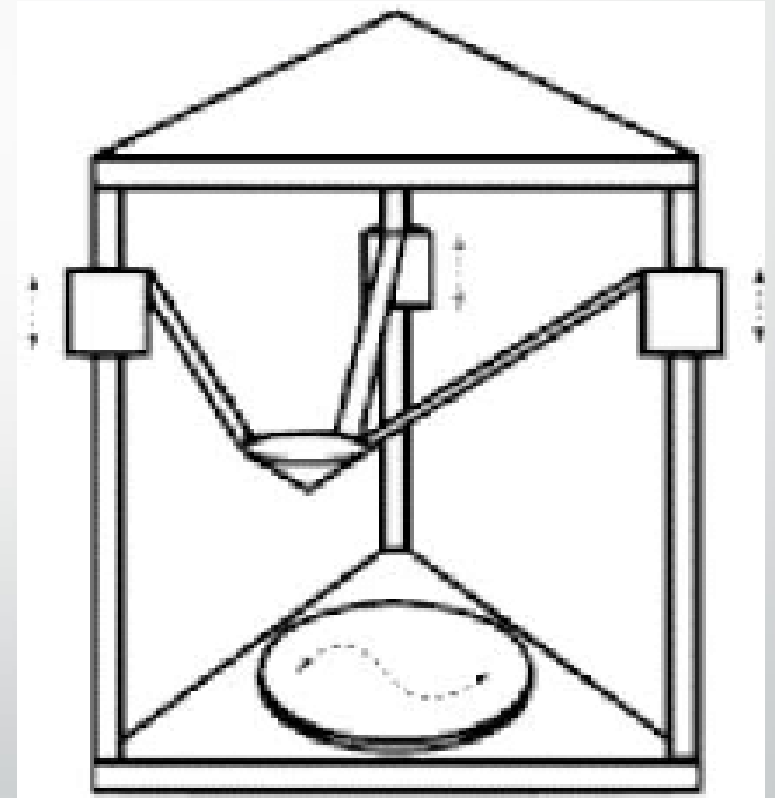
FDM PRINTER TYPES

A) ACCORDING TO STRUCTURE

A3) DELTA TYPE FDM PRINTER

A3) DELTA TYPE FDM PRINTER

Delta type 3D printers work according to the delta robot concept. Delta robots are used in many fields in the industry. These robots are more preferred for making light and small objects. These robots consist of 3 arms and each arm can be moved up and down. With the joint movement of 3 arms, it is possible to produce the desired precision product. These robots with 3 arms combine in one head, which in 3D printers carries the printer's extruder. The motors are usually located under the table and allow the arms to move.



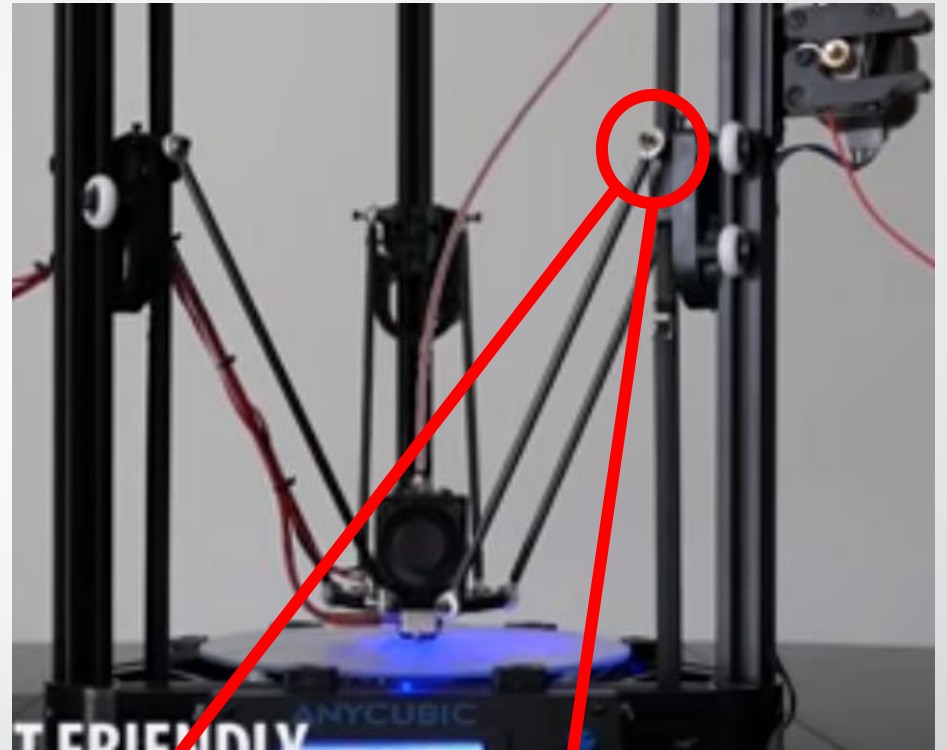
https://www.matterhackers.com/articles/getting_started_with_3D_printing

Like Cartesian 3D printers, Delta 3D printers use the FDM system. The disadvantage of the Delta 3D printer is that it is difficult to install and adjust, and its calibration can be deteriorated quickly. The main difference that distinguishes Delta printers from other printers is that they are driven by stepper motors in three places to ensure movement in the vertical Z axis. This is due to the triangular shape of delta printers.

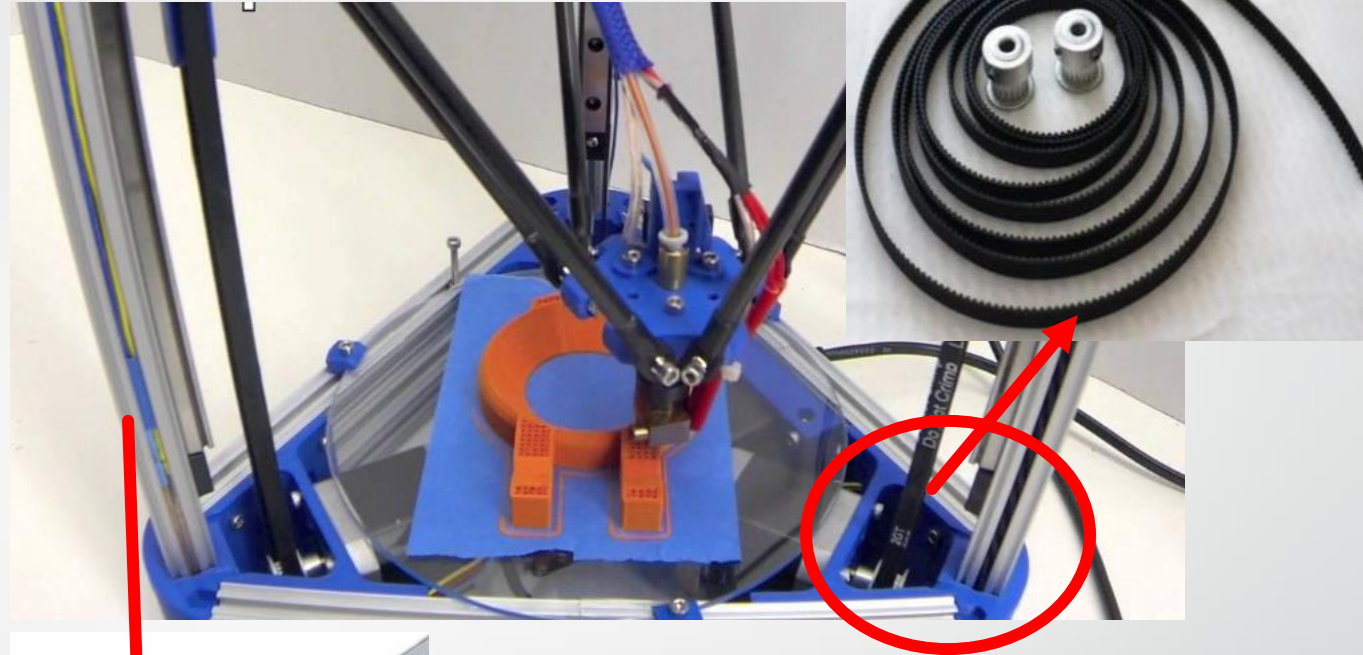


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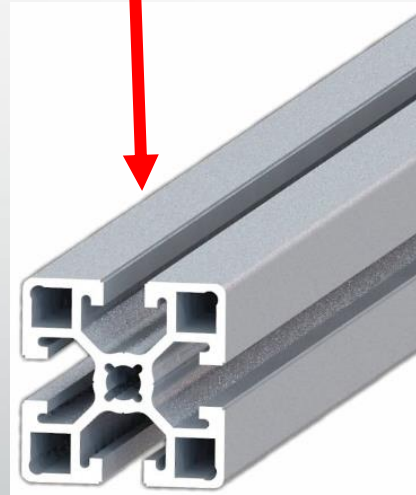
The biggest difference of Delta 3D printers from other printers is that the printing table is fixed and stationary. The stability of the product to be produced is important in terms of production and product quality. The movement of all three axes (X, Y and Z), which must be performed in order to be able to print from the printer, is made by the carrier arms.



The bearing arms, which are generally increased in degree of freedom by calf-eye or fish-eye joints, carry a body consisting of sigma profiles or specially hardened induction shafts. The movement to the supporting arms is transmitted from the motors located under the fixed table by means of the toothed belt pulley.



Induction shaft



Sigma Profile

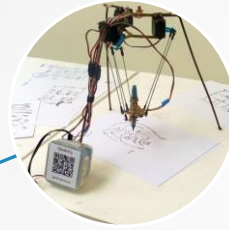


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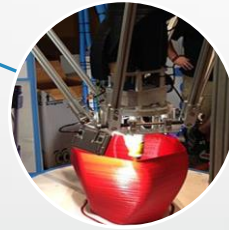
**SOME USEG
AREAS OF
DELTA
ROBOT
ARMS**



- Many assembly line



- Ploter and Router



- 3D Printers



- Construction Industry Applications



[VIDEO 1](#)

[VIDEO 2](#)

[VIDEO 3](#)

[Home Page](#)