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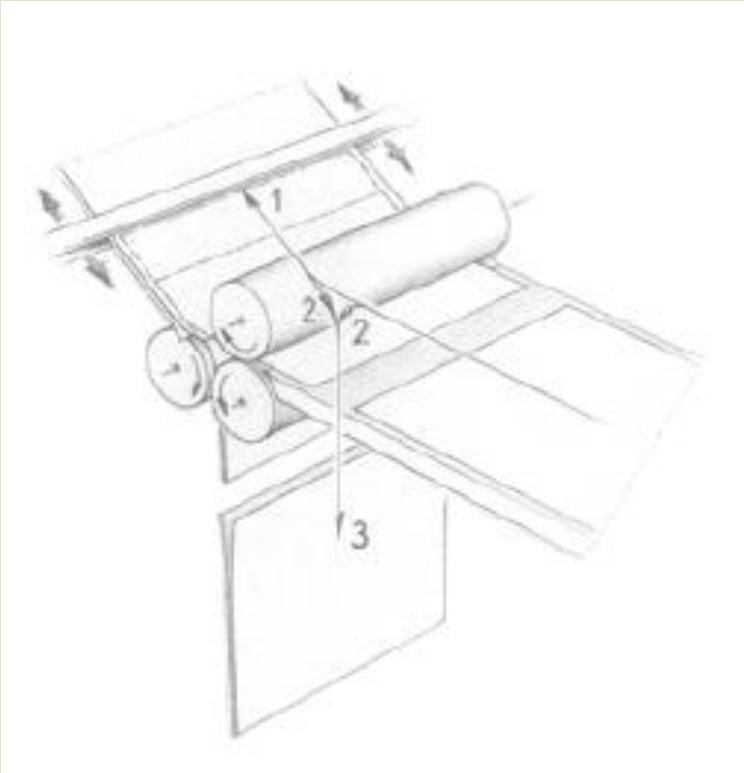

Corrugated Paper Machine Front Infeed
瓦楞纸前沿进纸机

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About The Machine

1、Function

Corrugated paper infeed machine is the key component of the whole printer machine. It cyclically transfer papers into print area. The accuracy of infeed action decides the overall print performance.

2、Advantage

The traditional mechanical infeed cam is poor in flexibility. And the cost is much higher than electrical cam. The latter becomes much more popular than the former.

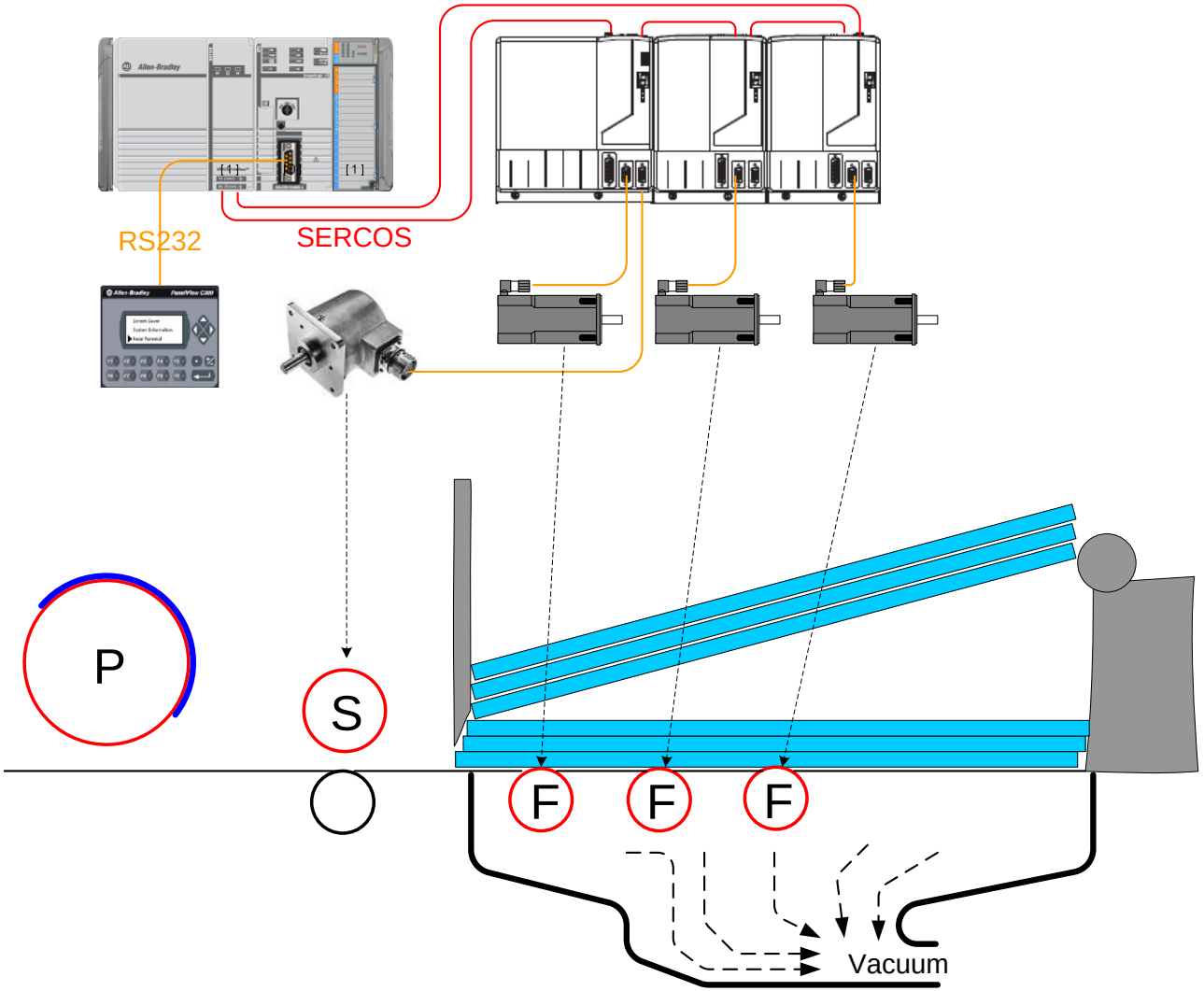
3、Market Potential

As the printer itself is a quickly cost recovering machine it creates a great demand for infeed machine. At the very least 800 sets(15M) is required per year for china market.

4、Main Competitor

Rexroth,Schneider,Bechhoff,B&R

Control System

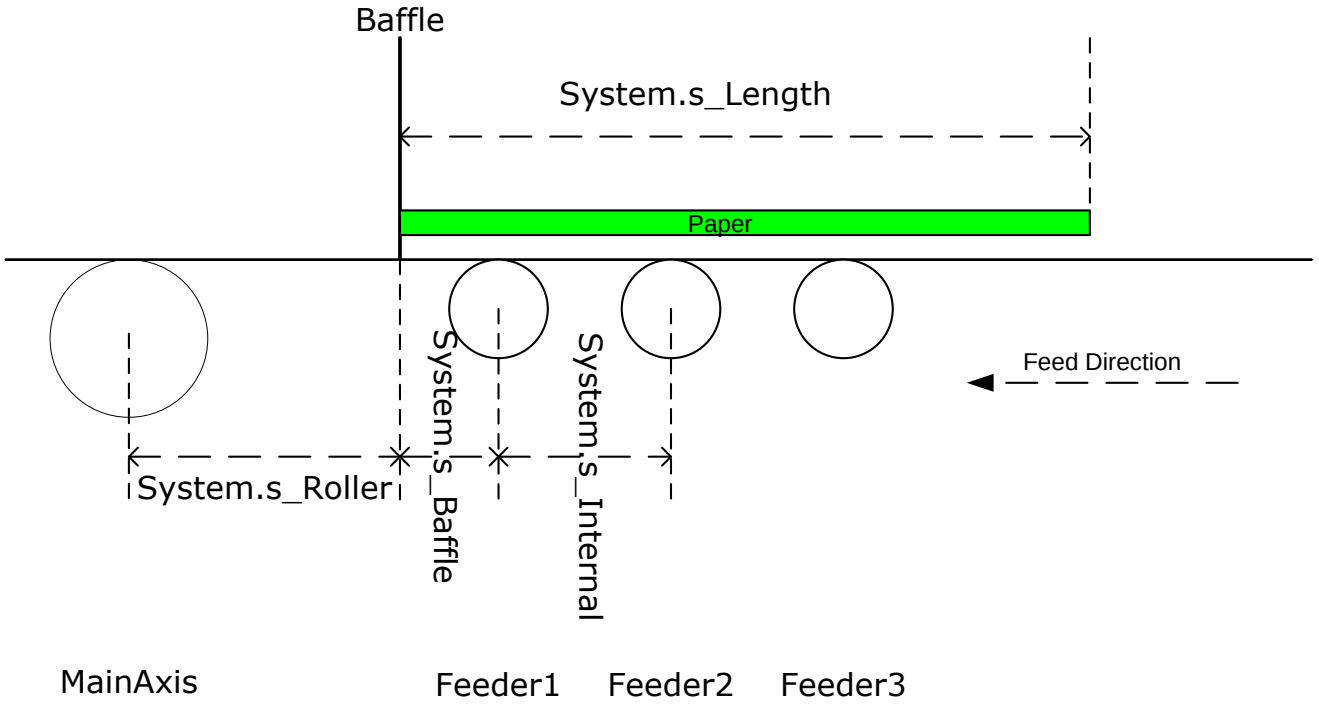


P---Print Roller

S---Stretch Roller

F---Infeed Roller

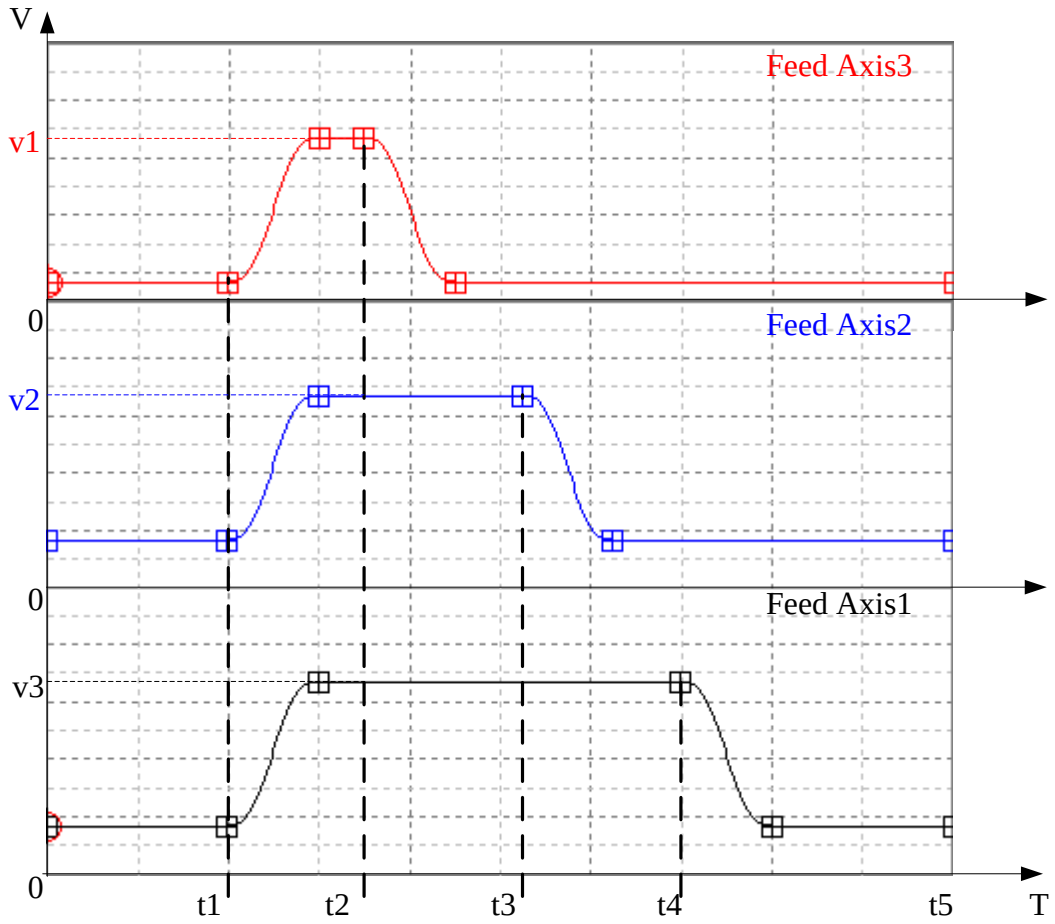
Mechanical Layout



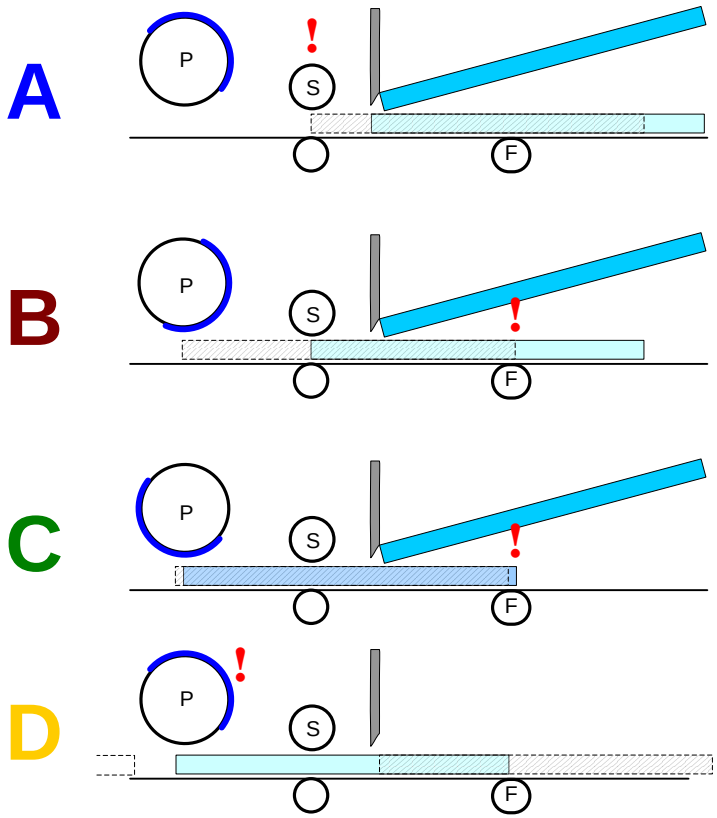
- **Baffle**
  To make the paper front aligned.
- **MainAxis**
  Provide the position of print roller for infeed roller to catch. Normally it is an auxiliary encoder.
- **InFeed1,2,3**
  The vacuum makes the breakout friction between the infeed roller and the paper reverse side. Asif the infeed roller begans to rotate, the friction drive the moving of the paper.

Velocity Design

- **Key Point**
  - Position Sync
  - Optimized Cam Profile
  - ONLINE profile change
- **Time break point**
  - t1:Start Position
  - t2:Infeed3 Finished
  - t3:Infeed2 Finished
  - t4:Infeed1 Finished
  - t5:Infeed cycle finished
  - v1=v2=v3=Print roller Linear velocity
- **Infeed Mode**
  - Interval
  - Continuous



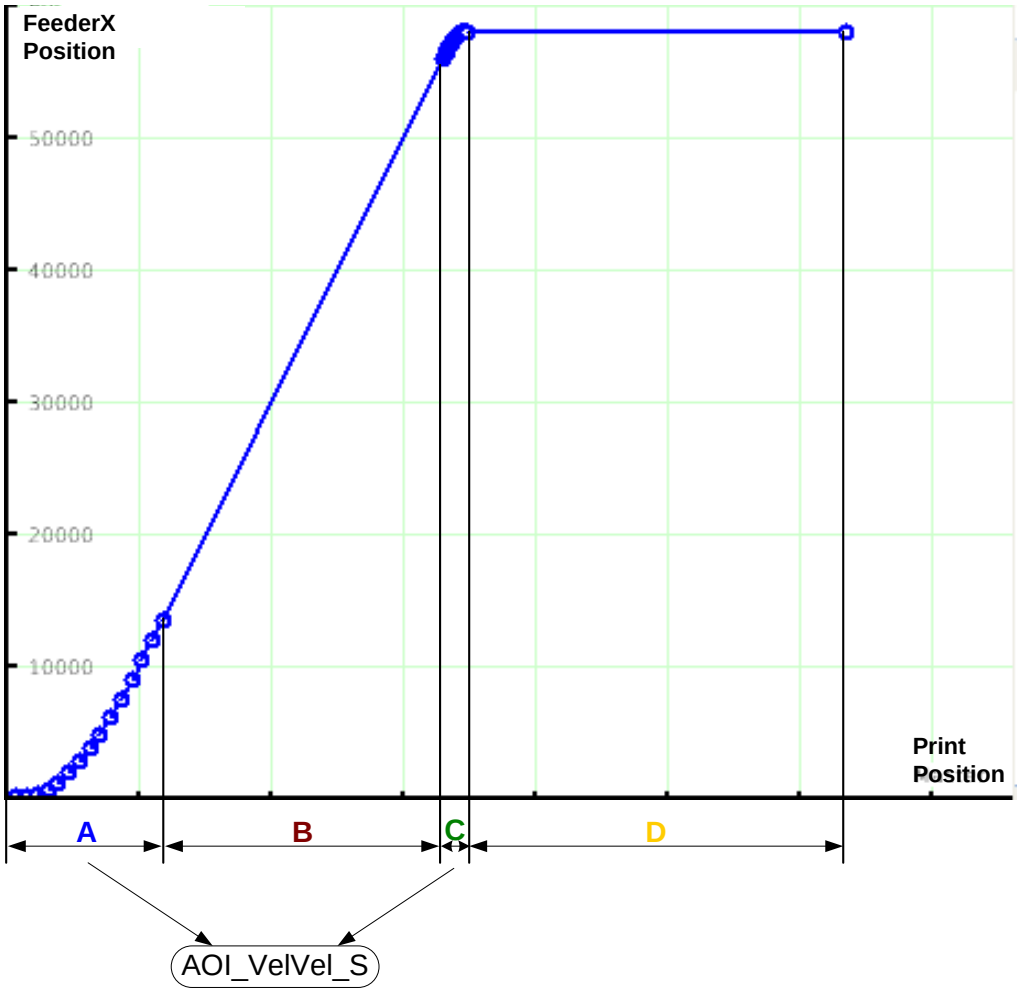
Cam Profile Design



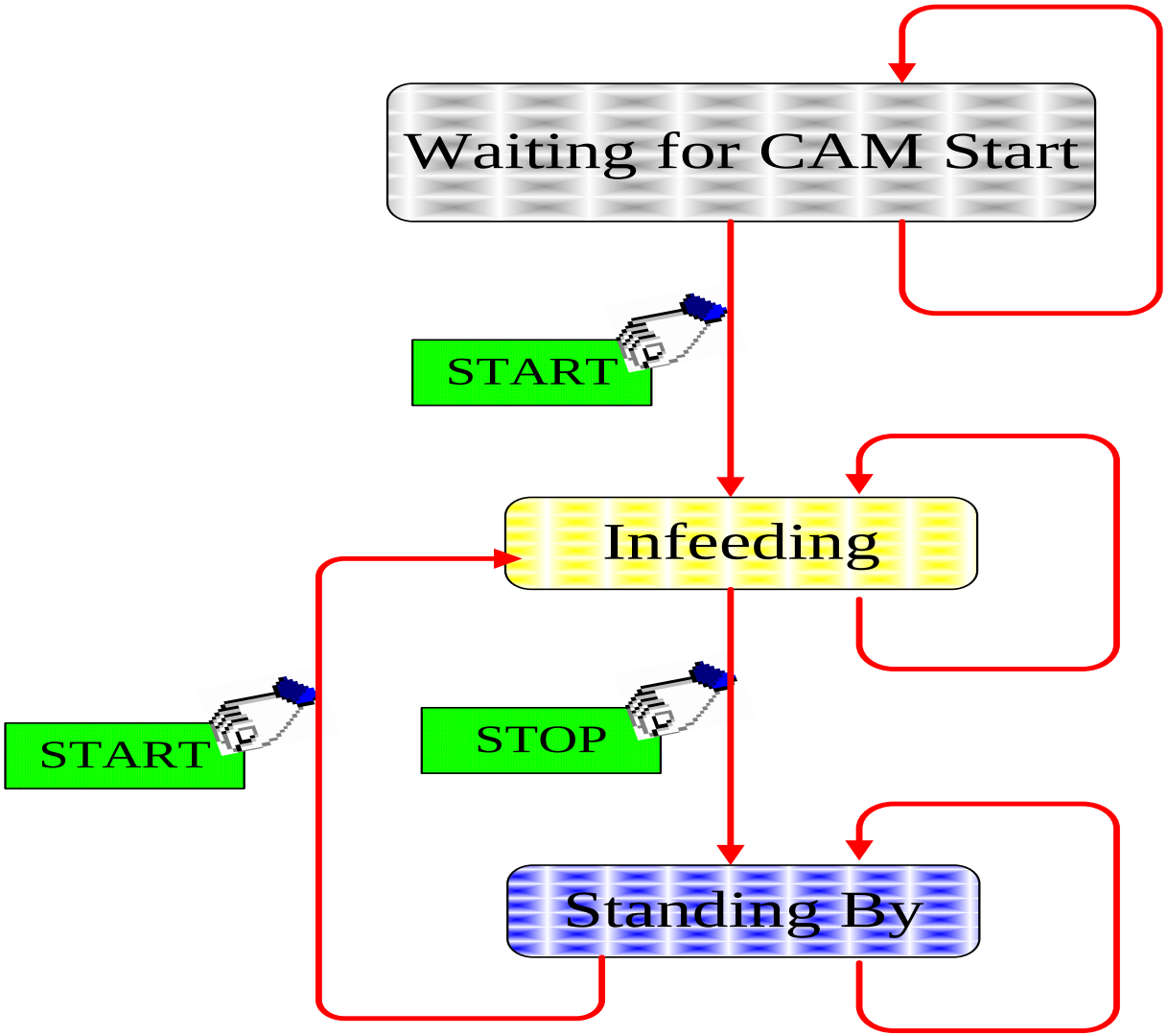
CP Target Position

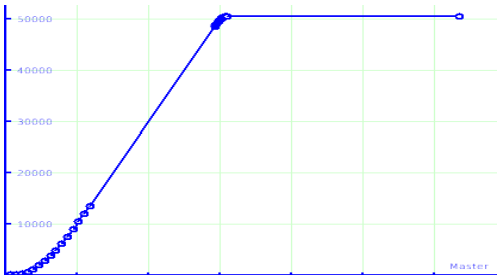
CP Actual Position

! Breakout Position

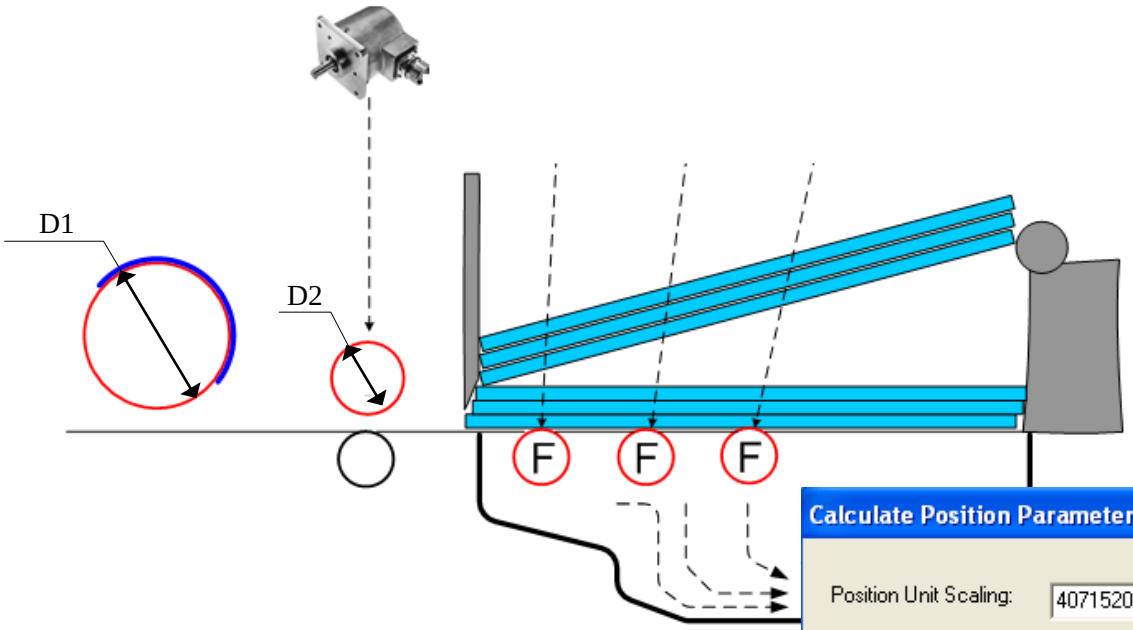


Motion Camprofile

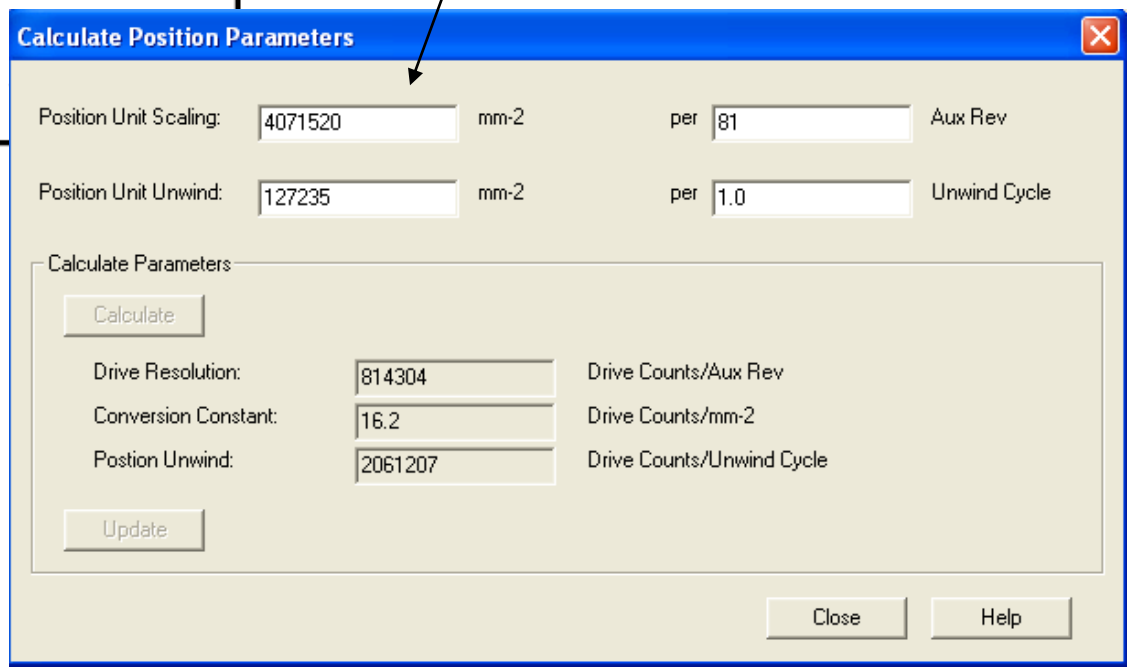




Axis Properties Setting



32 * 127235 = 4071520



EG:

D1=405,D2=160

D1:D2=81:32

P1=pi*D1*100=127235

Total AB products for Printer

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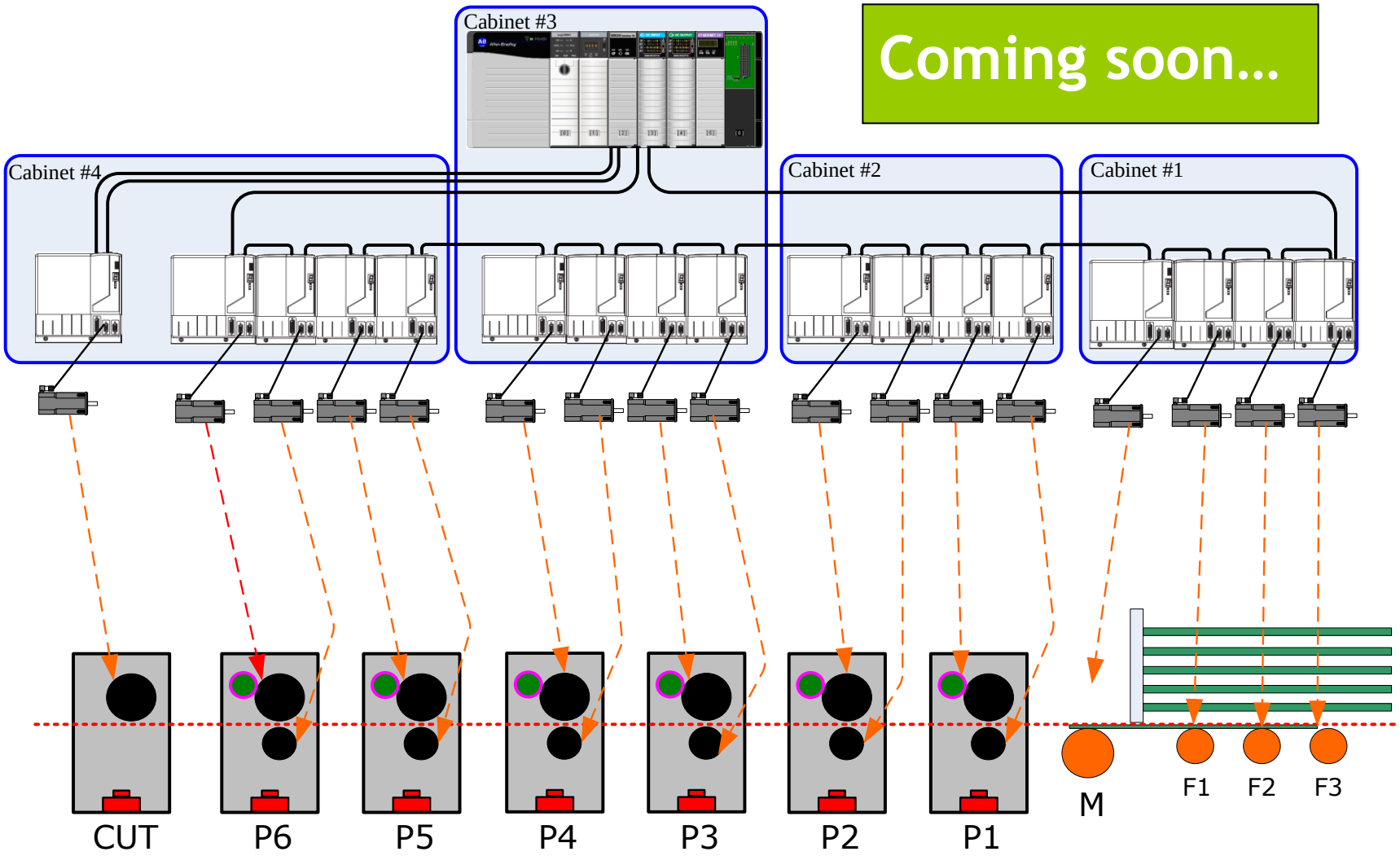

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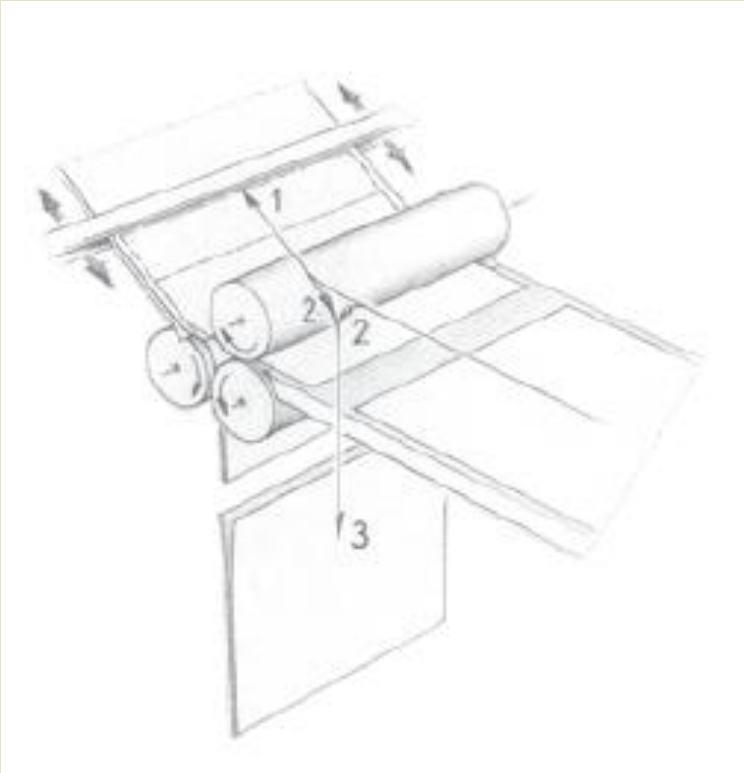

Question?

Thanks for support from

Henry Huang---Motion general support
Simon Zhang---Servo error info record
Matt Drake---Advanced Cam Design
……

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