# PLC Project Summary

* 2 PicknPlace feeders with 2 axes each
* Each feeder has (2x) Axis functions including Jog, Move to Pos, Stop and Reset
* Each feeder axis has HMI variables for:
  + Setting operation mode
  + Auto Mode, which has the following state machine:
    1. Reset
    2. Move to top
    3. Move to target 1 pos X
    4. Move to target 1 pos Y
    5. Grab
    6. Move back to top
    7. Move to target 2 pos X
    8. Move to target 2 pos Y
    9. Place
  + Manual Mode – Jog forward and backward with set velocity;
  + Stop Mode – Executes MC\_Stop
  + Historizing for ActPos and ActVelo
  + Axis state and mode
  + Recipe for setting target positions and travel speeds
* Each feeder has Events
  + Messages for Mode switching
  + Alarms for axis errors (MC\_MoveAbs, MC\_Jog etc)
* Structure data types for:
  + HMI data
  + Auto Mode data
  + Manual Mode data
  + Feeder Info
  + Axis Ino
  + Op mode control and status
  + Feeder Recipe
* Enums for:
  + Axis mode
  + Axis state
  + Station state