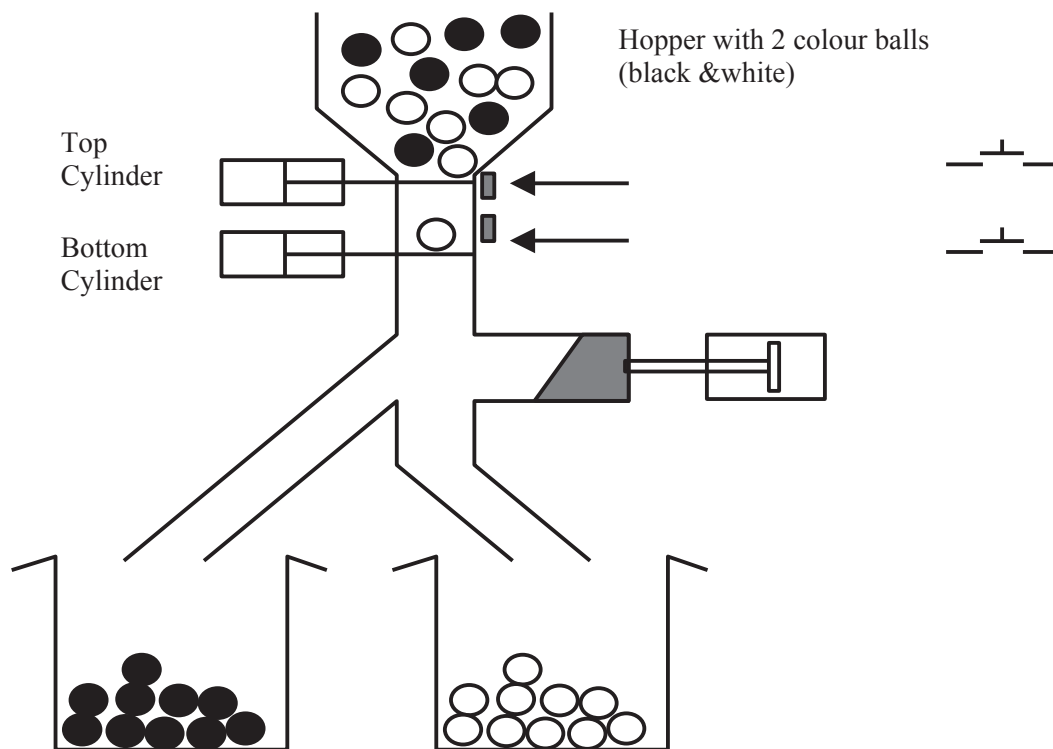


6. APPLICATION EXAMPLES OF BASIC COMMANDS

□ Example: Ball Sorter Mechanism



In this application, the system is to sort out the black & white balls into 2 different container.

The start button will start the operation, Ball sensor (S1) will sense the presence of the ball in the hopper. The top solenoid will release the ball for the colour sensor (S2) to differentiate the colour before being release into the container.

• I/O Assignment

Input	Device
00000	Start PB
00001	Ball sensor (S1)
00002	Colour sensor (S2)
00003	Stop PB

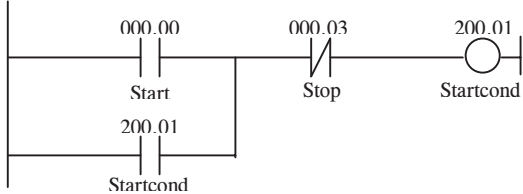
Output	Device
01000	Top cylinder
01001	Bottom cylinder
01002	Pusher

6. APPLICATION EXAMPLES OF BASIC COMMANDS

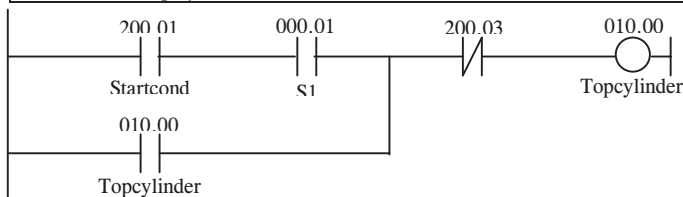
Ladder Diagram : Main 1 Network 1

Main 1 – Ball Sorting (Conventional Method)

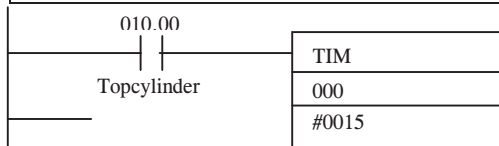
Network 1 – Start cond



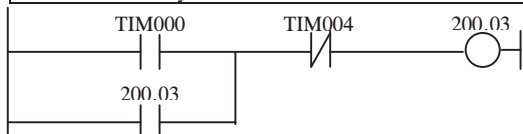
Network 2 – Top cylinder



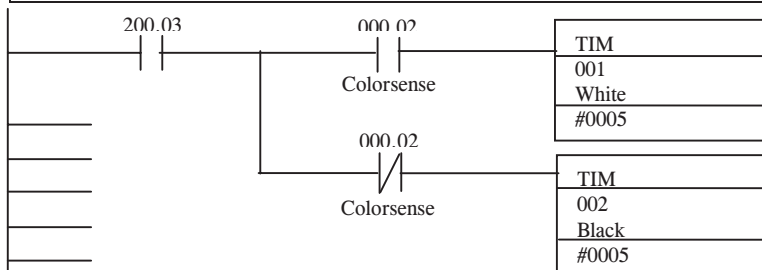
Network 3 – Timer



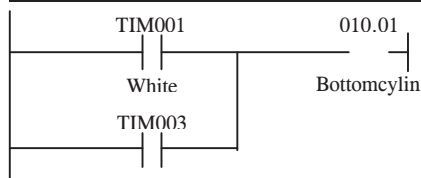
Network 4 – Delay



Network 5 – White&black

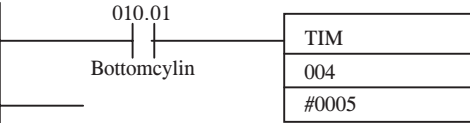


Network 6 - Bottomcylinder

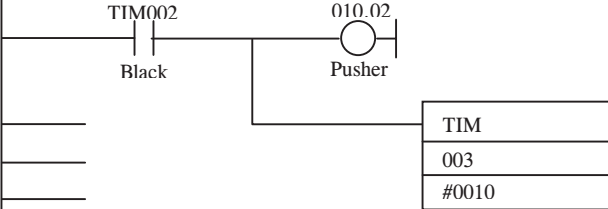


6. APPLICATION EXAMPLES OF BASIC COMMANDS

Network 7 – Delay 0.5sec



Network 8 - Pusher



Network 9 - End



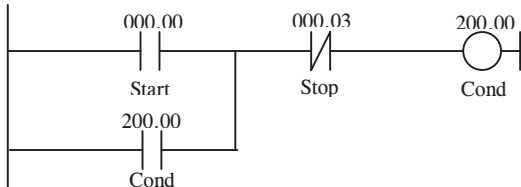
6. APPLICATION EXAMPLES OF BASIC COMMANDS

Ladder Diagram : Main 1 Network 1

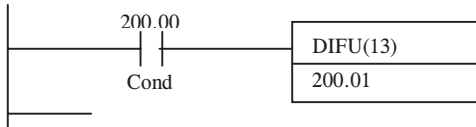
Main 1 – Balls sorting

This program separates white balls from black balls using the shift register method

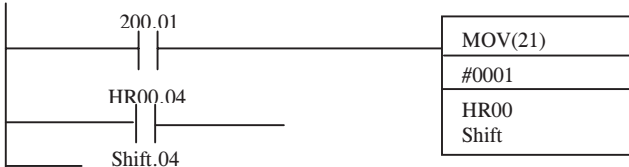
Network 1 – Start



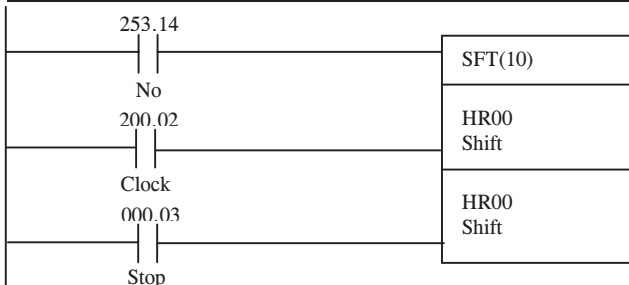
Network 2 – Differentiation up



Network 3 – Set bit 1 on First bit of HR 00 is set

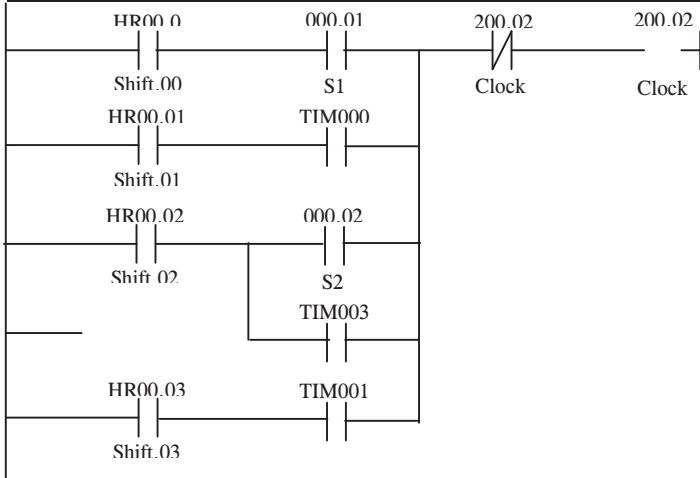


Network 4 – Shift register



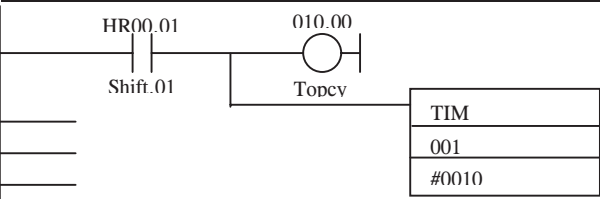
Network 5 – Process

Process sequencing clock input to shift register

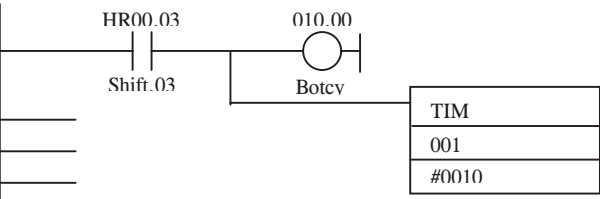


6. APPLICATION EXAMPLES OF BASIC COMMANDS

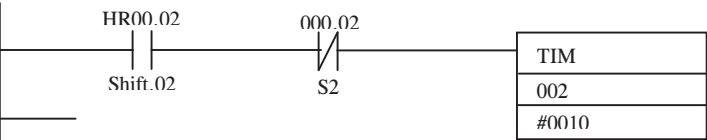
Network 6 – Set bit 1 on



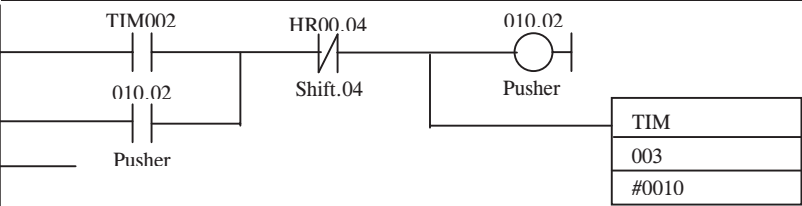
Network 7 – Set bit 1 on



Network 8 – Delay 1sec



Network 9 – Pusher



Network 10 - End

