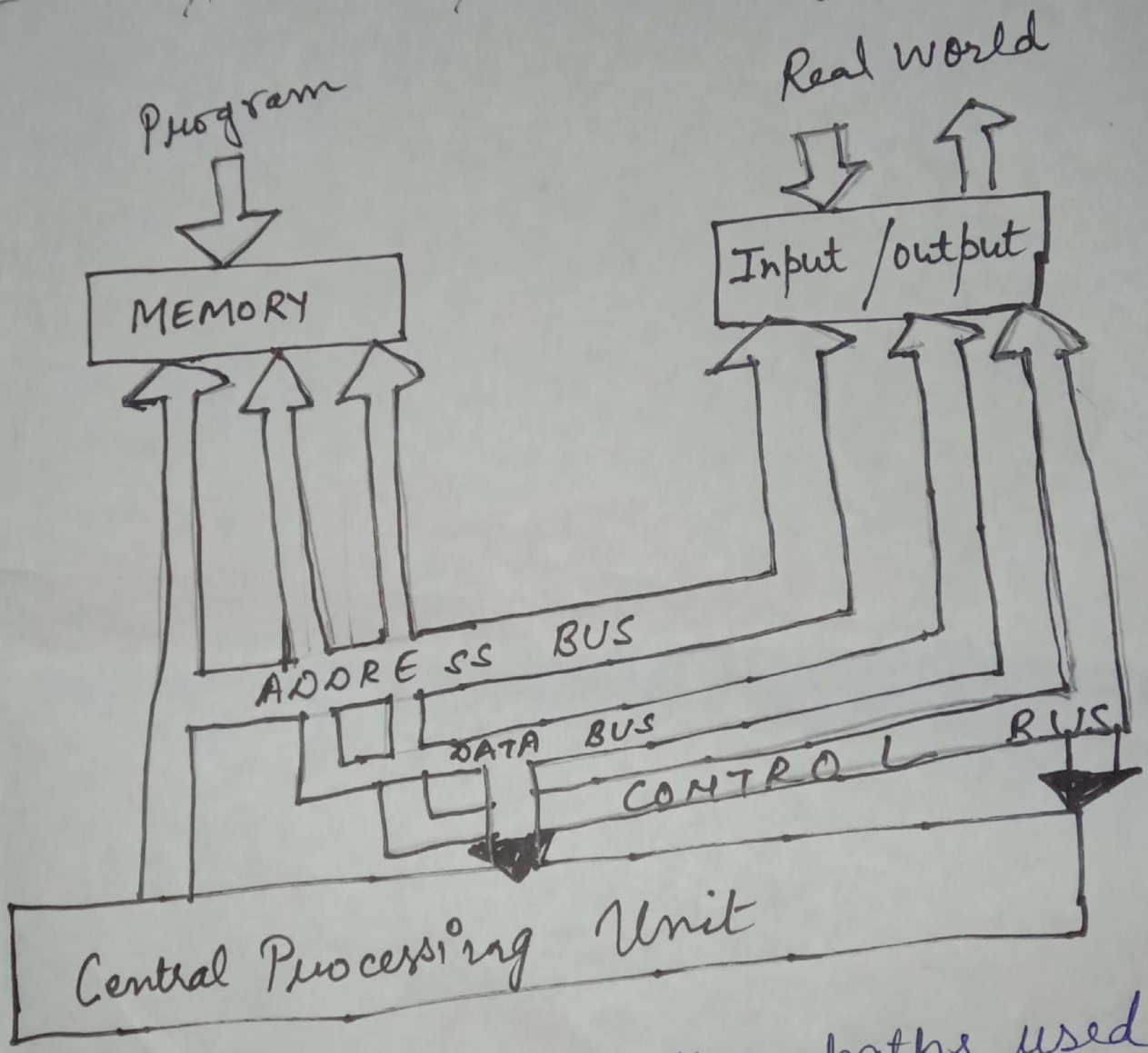
BUSES IN PLC ARCHITECTURE



BUSES :— The buses are the paths used for communication with in the PLC.

NOTE :— Buses are the conducting wires used for communication with in the PLC.

In buses information is transmitted in binary form, i.e. as a group of bits, 1 or 0, indicating ON/OFF states. The term is used for the groups of bits constituting some information.

Data Bus :- The data bus is used to carry data that is required in processing done by CPU. The data bus is bi-directional and sends data to various system element. If the microprocessor is 8-bit then it has 8-bit internal data bus.

Address Bus :-

The address bus is unidirectional and carries addresses to the memory location so that each word can be located in the memory and every memory location has a a unique address.

NOTE :- The 8-bit microprocessor has 16-bit address bus which means 8-bit microprocessor can access 2^{16} memory locations.

CONTROL BUS :-

Control bus carries those signal that are used by the CPU for controlling various operations.

These signals inform the memory devices whether to receive data from input devices or send data to the output device.

NOTE :- The control bus also carries timing signals for synchronization.