PROCESSOR COMPONENTS

PC → MAR → MDR → CIR → ACC

PROGRAM COUNTER (PC)

- KEEPS CHECK OF WHEREABOUTS THE NEXT PROGRAM IS IN THE MEMORY.
- AFFTER ONE INSTRUCTION HAS BEEN CARRIED OUT, THE PC WILL BE ABBLE TO TELL THE PROCESSOR WHERE ABOUTS THE NEXT INSTRUCTION IS.
- THE INSTRUCTIOIONS ARE ALWAYS STORED IN ORDER IN THE PC.

MEMORY ADDRESS REGISTER (MAR)

- THIS IS WHERE THE ADDRESS THAT WAS READ FROM THE PC IS SENT.
- STORED HERE SO THAT THE PROCESSOR KNOWS WHERE ABOUTS IN THE MEMORY THE INSTRUCTION IS.

MEMORY DATA REGISTER (MDR)

- THE MEMORY IS SEARCHED TO FIND THE ADDRESS BEING HELD IN THE MAR, AND WHAT EVER IS UNDER THAT ADDRESS, MUST BE THE INSTRUCTION.
- THE INSTRUCTION IS THEN COPPIED, INTO THE MDR.

CURRENT INSTRUCTION REGISTER (CIR)

- THE INSTRUCTION THAT IS NOW IN THE MDR IS COPPIED INTO THE CIR.
- IT WILL BE SPLIT INTO TWO PARTS:
  - ONE PART WILL BE SENT TO THE COMPUTER TO BE DECODED SO THAT THE PROCESSOR KNOWS WHAT SORT OF INSTRUCTION IT IS, AND CAN SEND SIGNALS TO THE RELEVANT PARTS.
  - THE OTHER ART TELLS THE PROCESSOR WHERE ABOUTS IN THE MEMORY THE DATA THAT NEEDS TO BE USED IS.

THE ACCUMALATOR (ACC)

- THE ACCUMALATOR IS USED TO ACCUMALATE RESULTS, IT IS WHERE THE RESULTS FROM OTHER OPERSAIONS ARE STORED TEMPORARILY BEFORE BEING USED BY OTHER PROCESS' S.