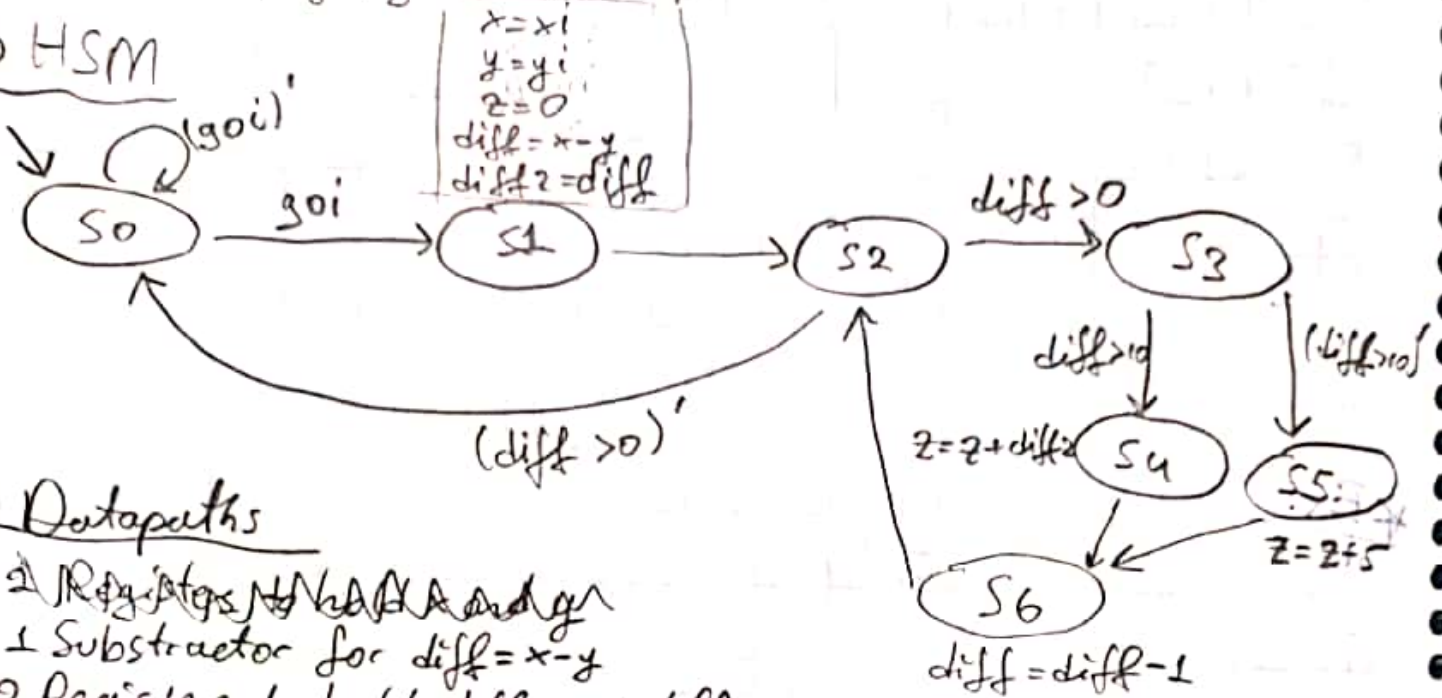


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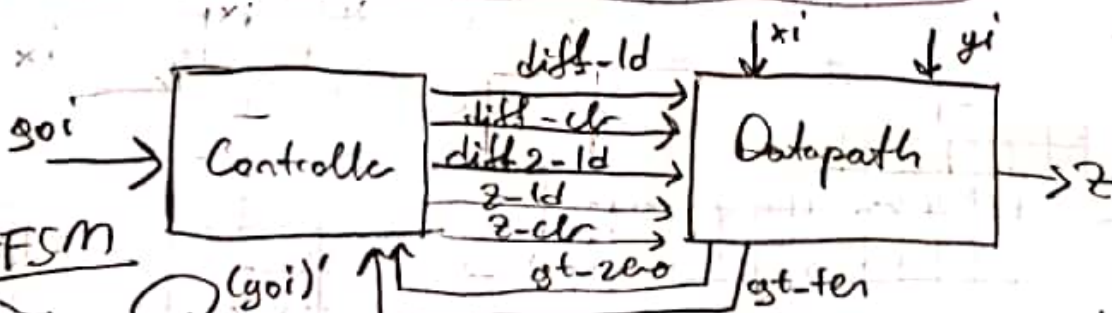
* Inputs = x_i, y_i, go_i * Outputs = z

1) HSM



2) Datapaths

- 2 Registers for x and y
- 1 Subtractor for $diff = x - y$
- 2 Registers to hold $diff$ and $diff_2$
- 1 Register to hold z
- 1 Adder for $z = z + 5$ and $z = z + diff_2$
- 1 Decrementer for $diff = diff - 1$
- Comparator for $diff > 0$ and $diff > 10$



*FSM

