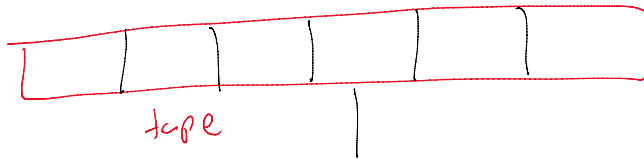


# Neso Academy Turing example 1

Wednesday, May 6, 2020 5:06 PM



left ← head → right

I can go right or left

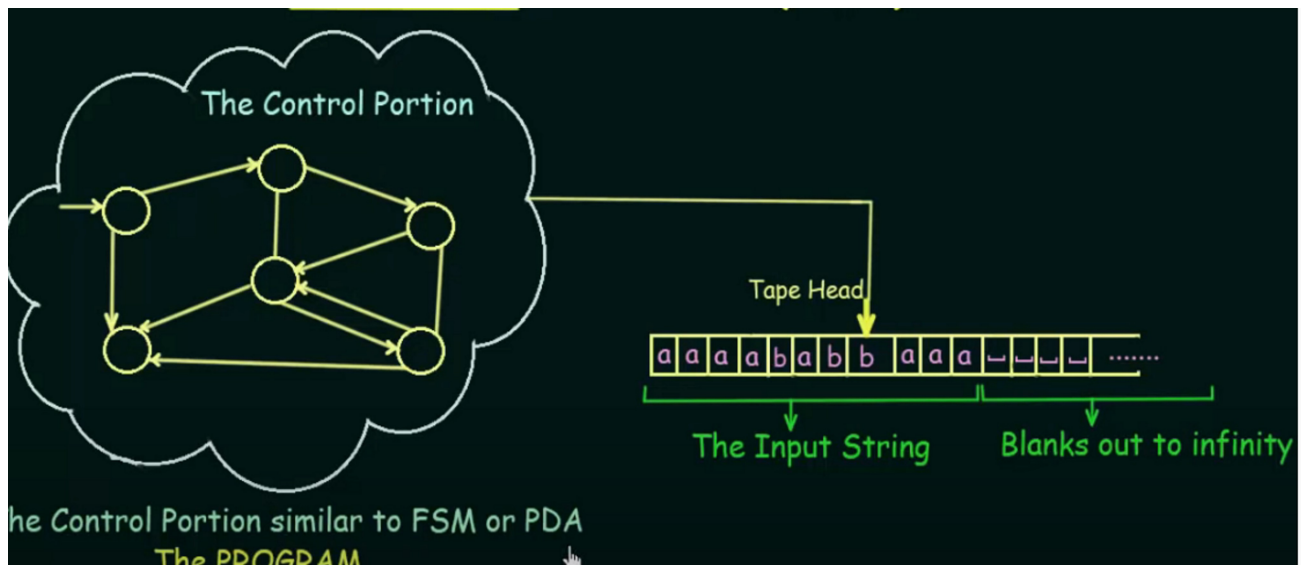
So what are the operations

→ Read Scan the Tape head

→ update / write below the head

→ right  
→ left

Architecture



You can see in the source code that he moves the right, and to the left

```

        return self.tape[self.pos]

    def move_left(self):
        if self.pos <= 0:
            self.tape.insert(0, self.blank)
            self.pos = 0
        else:
            self.pos -= 1

    def move_right(self):

MachineTape > __init__()

```

## Rules of Operation - 2

- > Control is with a sort of FSM
- > Initial State
- > Final States: (there are two final states)
  - 1) The ACCEPT STATE
  - 2) The REJECT STATE
- > Computation can either
  - 1) HALT and ACCEPT
  - 2) HALT and REJECT
  - 3) LOOP ( the machine fails to HALT )

Well this is also in our source code !

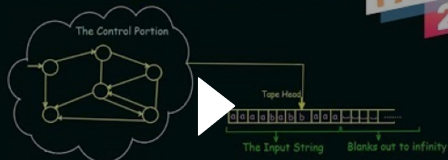
```

class TuringAcceptException(Exception):
    """ Turing Accept Exception """
    def __str__(self):
        return "Accept"

```

# Turing Machine

PART  
2



The Control Portion similar to FSM or PDA  
The PROGRAM  
It is deterministic

95 / TOC