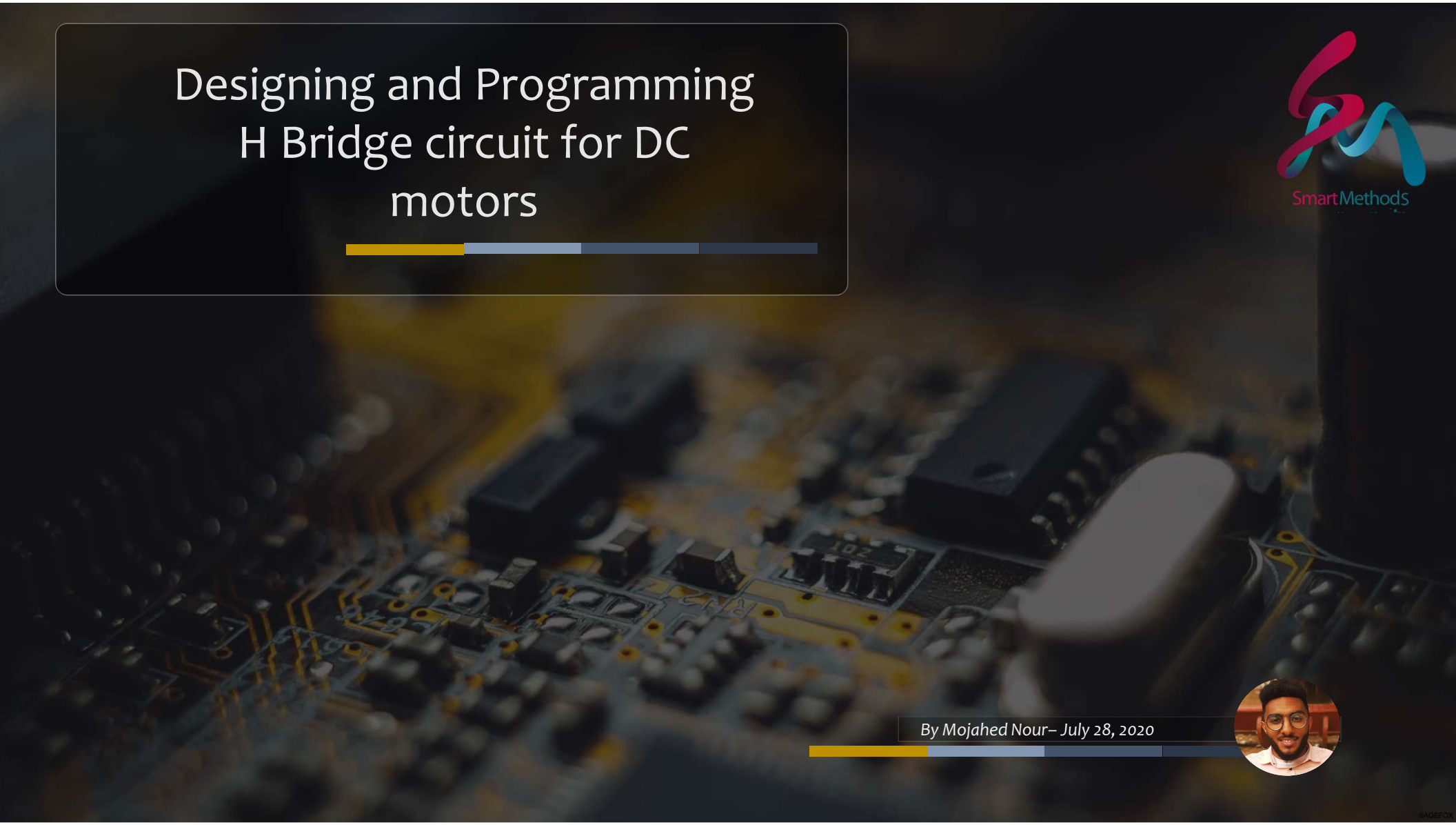
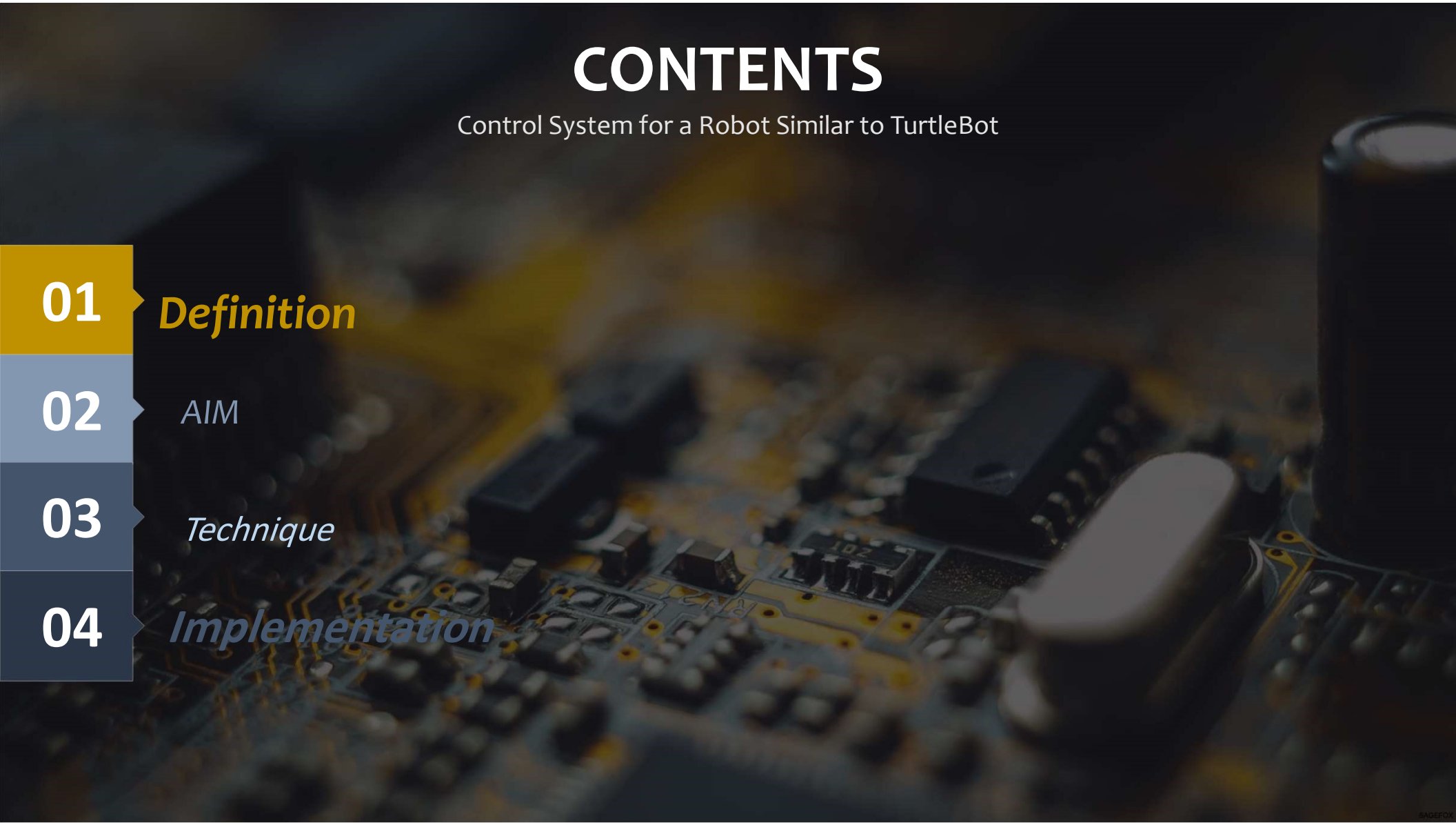
Designing and Programming H Bridge circuit for DC motors



By Mojahed Nour– July 28, 2020



CONTENTS

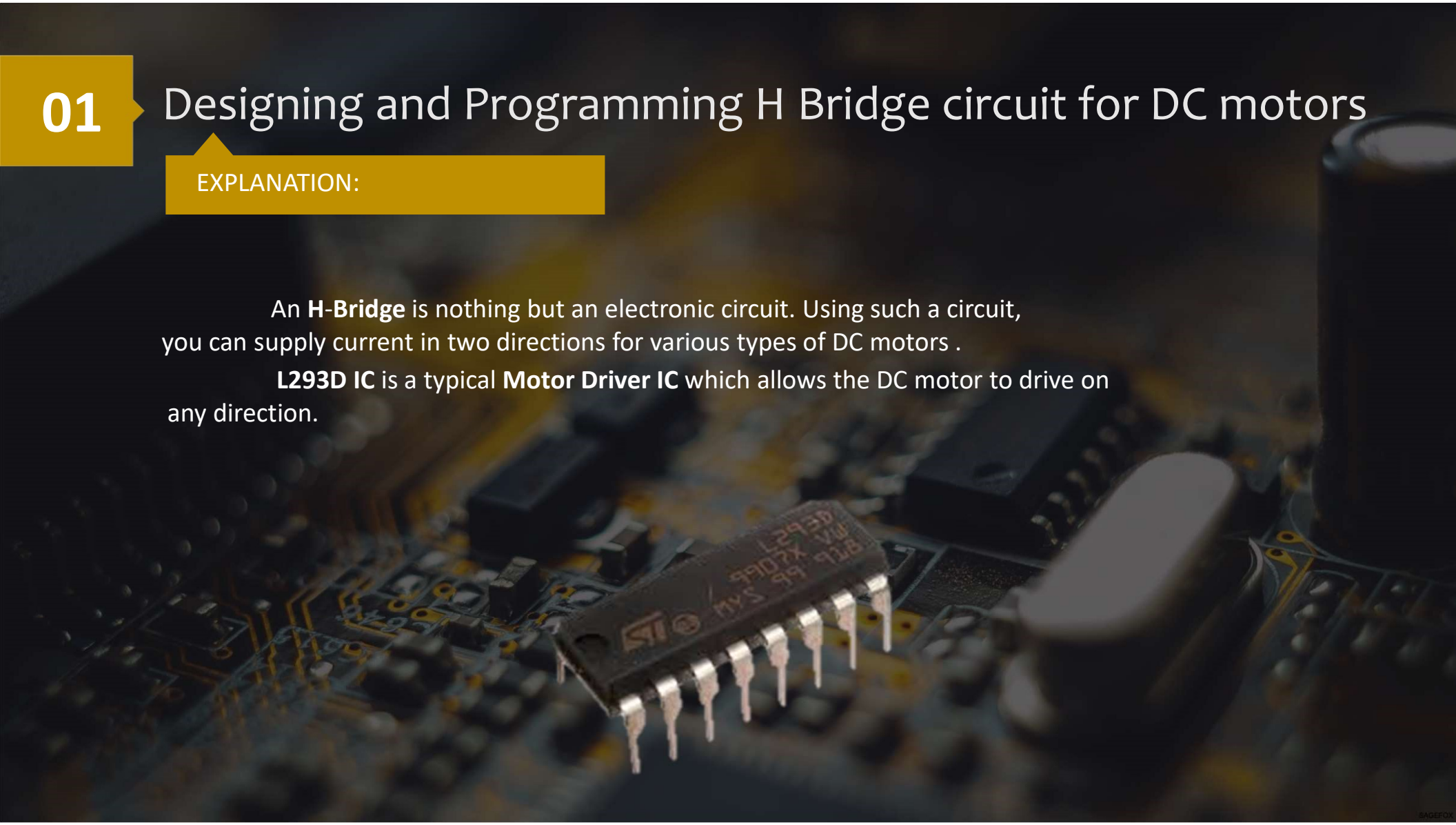
Control System for a Robot Similar to TurtleBot

01 Designing and Programming H Bridge circuit for DC motors

EXPLANATION:

An **H-Bridge** is nothing but an electronic circuit. Using such a circuit, you can supply current in two directions for various types of DC motors .

L293D IC is a typical **Motor Driver IC** which allows the DC motor to drive on any direction.

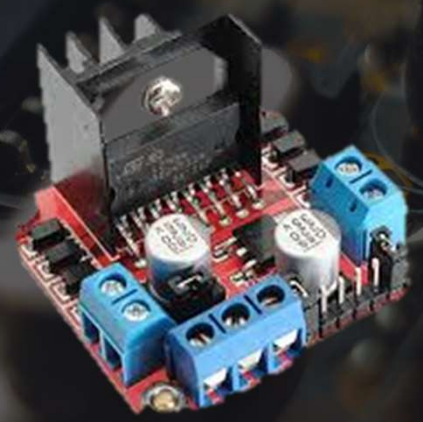


02 Designing and Programming H Bridge circuit for DC motors

What is the purpose of this task ?

Designing H Bridge circuit that functions and operates Similar to L293D IC driver and handles higher currents.

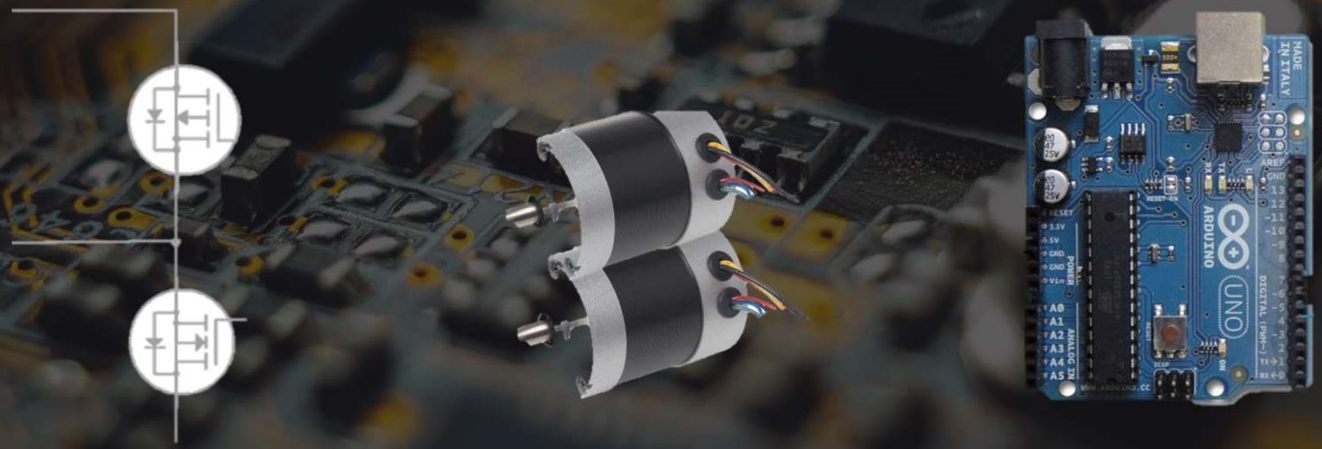
Moreover, Because L233D IC is capable of holding only small currents (i.e.2A), more advanced IC is needed to be designed to deal with some motors operating in higher currents.



03 The technique

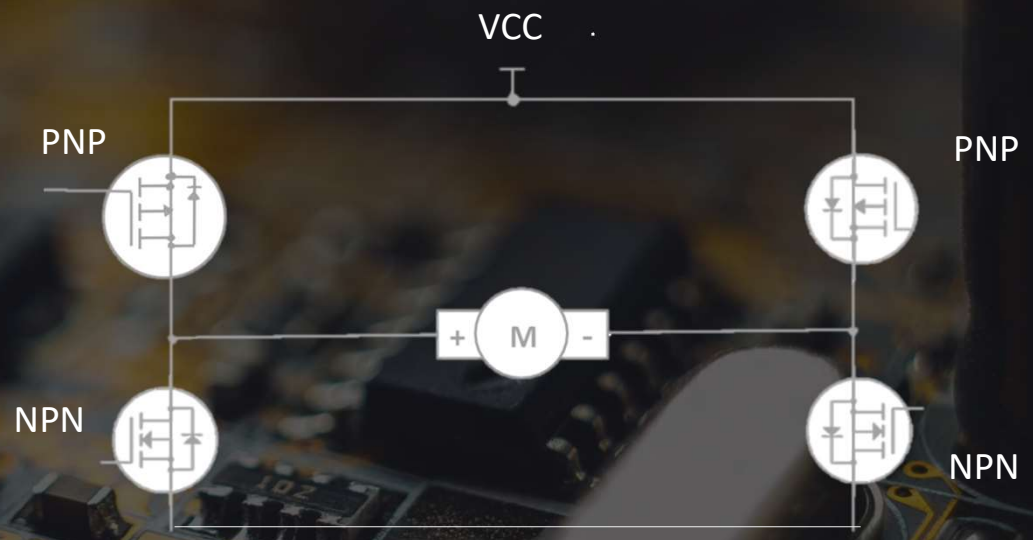
The components that will be used :

To perform this task , a simulation software should be used to design and program the circuit of the motor driver. In the circuit, Arduino might be used as a microcontroller and a DC motor linked by the Arduino & **MOSFET transistors.**



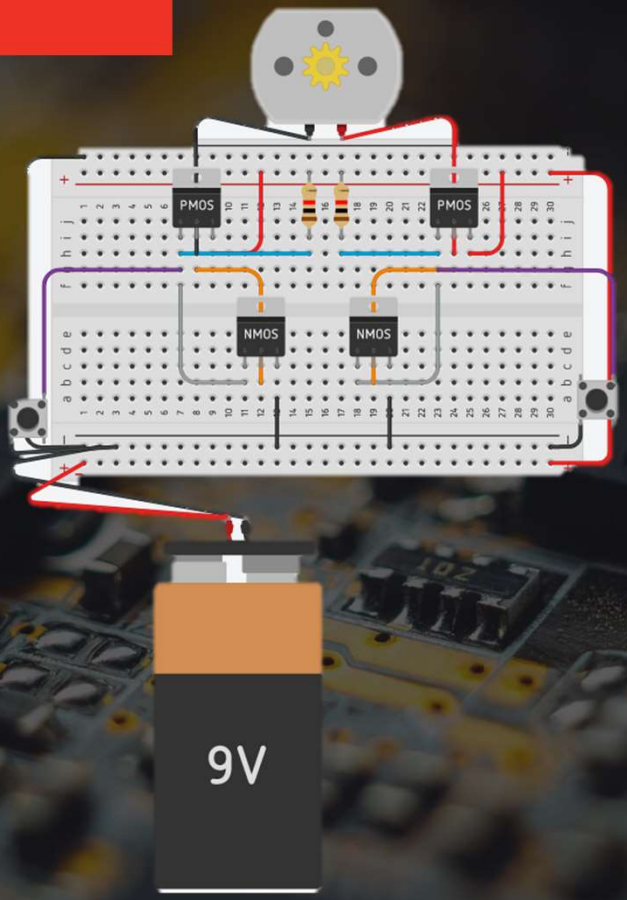
03 The technique

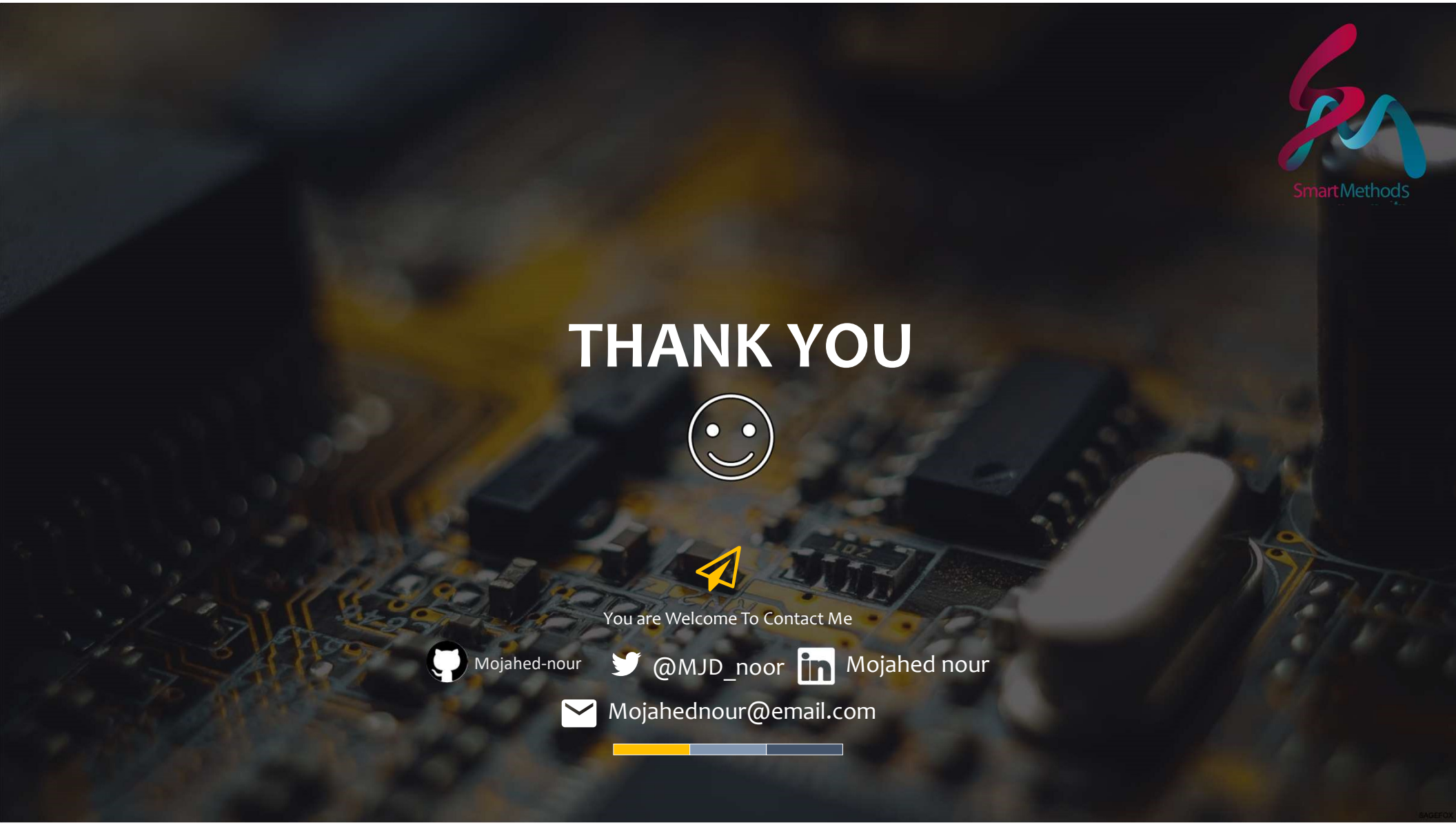
- **Two types of MOSFET transistors will be used :**
  - N-Channel MOSFET 60V 30A (FQP30N06L)
  - P-Channel MOSFET 60V 30A (FQP30N06L)



04 H Bridge circuit **implementation**

The circuit design :




SmartMethods
THANK YOU
You are Welcome To Contact Me
Mojahed-nour
@MJD_noor
Mojahed nour
Mojahednour@email.com