# Toy Car Control Using Esp32 and Flysky

***Abstract*—This document shows how to implement remote controlled toy car using Esp32.**

## 1 Components Required:

1) Esp32 Deveopment Kit
2) Toy Car with Motors
3) L293D Motor Driver IC
4) Flysky FS-i6X 2.4GHz RC Transmitter
5) FS-iA10B 2.4GHz Receiver
6) Breadboard
7) Connecting Wires

## 2 circuit connection:

1) Refer the pin diagram of L293D motor driver IC

   Esp32/IDE/Toycar_with_Flysky/Figures/pin.jpg

2) Connect Vcc1 pin to Vin pin on Esp32.
3) The input and enable pins(ENA, IN1, IN2, IN3, IN4 and ENB) of the L293D IC are connected to six Esp32 digital output pins(3.3V, 16, 17, 18, 19 and 3.3V).
4) Connect one motor to across OUT1 & OUT2 and the other motor across OUT3 & OUT4.
5) Connect the 14 pin of Esp32 to Channel 2 of FS-iA10B 2.4GHz Receiver
6) Connect the 15 pin of Esp32 to Channel 4 of FS-iA10B 2.4GHz Receiver
7) Connect the Vin pin of Esp32 to +5V of FS-iA10B 2.4GHz Receiver
8) Connect the GND pin of Esp32 to GND of FS-iA10B 2.4GHz Receiver
9) Connect external 9V battery to the Vcc2 pin of L293D motor driver IC
10) Connect external GND pin battery to the GND pin of L293D motor driver IC

    Esp32/IDE/Toycar_with_Flysky/Figures/wiring.jpg

11) Go to ardunio IDE and Write the the following code

    Esp32/IDE/Toycar_with_Flysky/Codes

12) Click on Compile and Upload the code to ”DOIT ESP32 DEVKITV1”.
13) Now you can the controll toy car using transmitter.