DISPLAY CONTROL OVER BLUETOOTH IN DIGITAL MODE THROUGH THE ANDROID APPLICATION

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Contents

Abstract

This manual shows how to control the Display through the android application using Bluetooth in Digital mode and display on the seven segment according the controls in the android app.

1 Components

Components	Values	Quantity
Vaman Bord		1
JumperWires	M-F, F-F	15
Breadboard		1
UGV-kit		1
Seven-Segment display		1
Resistor	220	1
Motor Driver IC	L293	1
USB-UART		1

2 Implementation

1. Connect the USB-UART pins to the Vaman ESP32 pins according to Table

VAMAN LC PINS	UART PINS
GND	GND
ENB	ENB
TXD0	RXD
RXD0	TXD
0	IO0
5V	5V

2. Flash the following setup code through USB-UART using laptop

https://github.com/likhith1101/Wi-Fi-controlled-UGV/blob/main/codes/src/main.ino

```
svn co https://github.com/likhith1101/Wi-Fi-
    controlled-UGV
cd codes
pio run
pio run -t upload
```

3. After uploading the code in the vaman board as per the given instructions, then download the Dabble apk and install it on the Android Mobile and give the necessary permissions.
4. On Android Mobile, open the Dabble application.Select gamepad option in the app and then select Digital Mode. In this mode, joystick contains buttons.
5. Connect esp32 by clicking bluetooth icon in the app, which enables bluetooth and esp32 will get connected.
6. Now connect the Seven Segment to the Vaman board according to the given connection given in the table

VAMAN PINS	SEVEN SEGMENT PINS
IO-32	a
IO-33	b
IO-25	c
IO-26	d
IO-27	e
IO-14	f
IO-12	g

Now you can observe the changes on sevensegment display for every key pressed on the joystick on the android application