

Software Serial on uKit Explore

Problem statement:

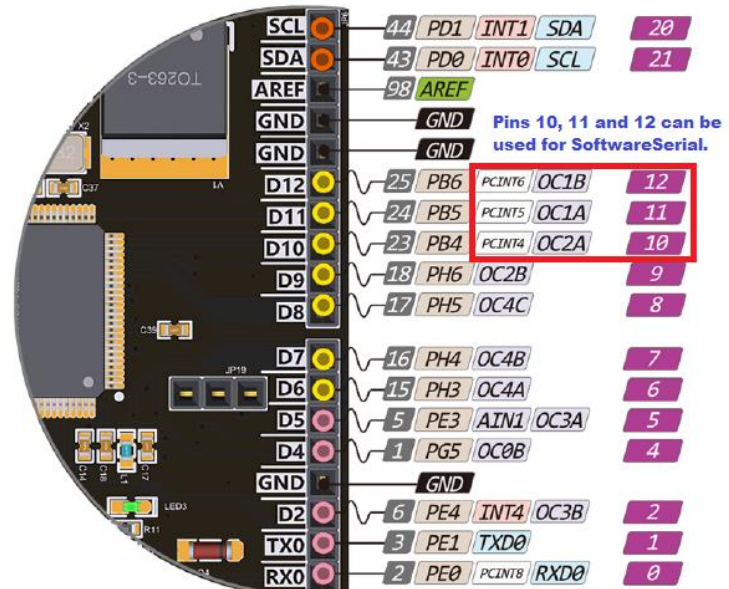
While the Bluetooth is using the hardware serial pins TX0 and RX0, the existing TX0 and RX0 pins are not able to connect to ESP32/TTGO for serial communication of sending data.

Solution:

Using SoftwareSerial to emulate digital pins on uKit Explore as serial pins

Pins for SoftwareSerial on uKit Explore

Pins 10, 11 and 12



Arduino software code

1. Define the library and declare a variable comdata as int and set it to 0.

a. `#include <SoftwareSerial.h>`

b. `int comdata = 0;`

2. Define the SoftwareSerial pinout

a. `SoftwareSerial swSerial(11, 12); //RX,TX CONFIRMED WORKING`
-> PINS 10,11 & 12 PURPLE TAG LABELS ON UKIT EXPLORE PIN OUT DIAGRAM v2

3. Under Void Setup(), initialize the serial communication baud rate

a. `swSerial.begin(9600);`

4. Read the incoming serial data

```
if (swSerial.available()) {  
    comdata = swSerial.read();  
    if(comdata ==70){  
        Forward();  
    }  
  
    if(comdata ==66){  
        Backwards();  
    }  
  
    if(comdata ==76){  
        Left90();  
    }  
}
```