

ADKeyboard Module (SKU: DFR0075)

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ADKeyboard Module (SKU: DFR0075)

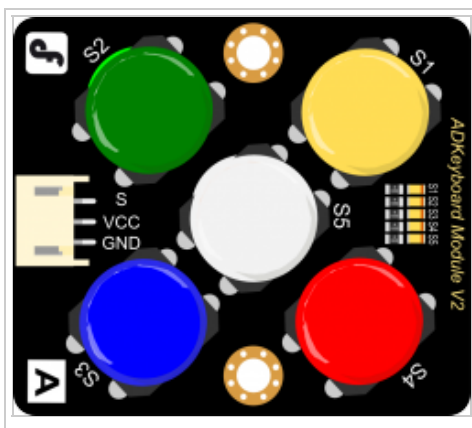
Introduction

This keyboard uses an analog input to read the five key state which saves IO resource for the Arduino. It can be used together with our IO Expansion Shield_For Arduino(V5)_ (SKU:_DFR0088) to make amazing interactive project.

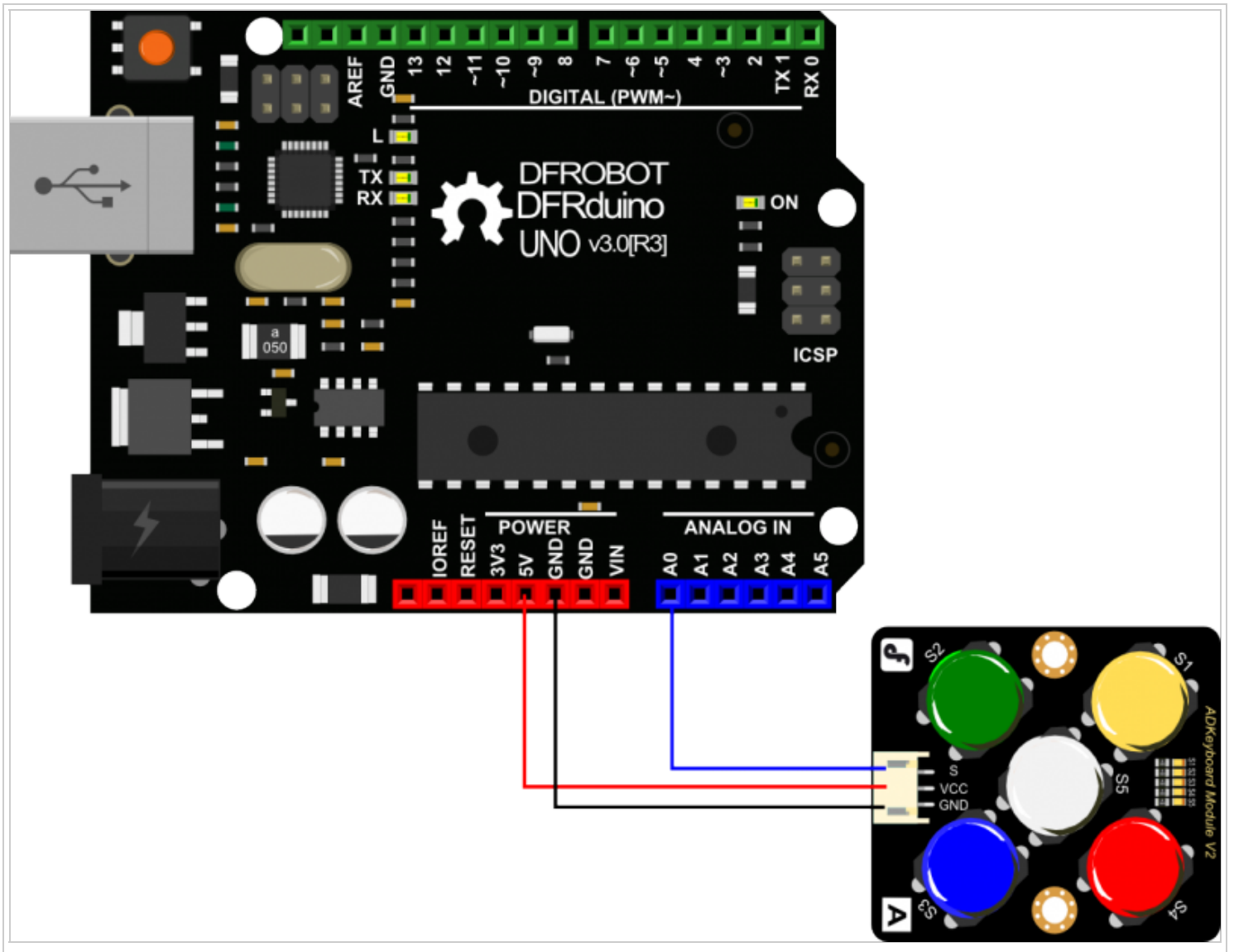
Specifications

- Supply voltage: 5V
- Interface: Analog
- Size: 40x33mm

Pin out Diagram



Wiring Diagram



Sample Code

```

?
1 //ADKeyboard Module
2 //Developed by DFRobot.com
3 //Last modified 30/11/2011
4 //Version 1.0
5 int adc_key_val[5] = {600,650, 700, 800, 900 };
6 int NUM_KEYS = 5;
7 int adc_key_in;
8 int key=-1;
9 int oldkey=-1;
10 void setup()
11 {
12   pinMode(13, OUTPUT); //we'll use the debug LED to output a heartbeat
13   Serial.begin(9600); // 9600 bps
14 }
15
16 void loop()
17 {
18   adc_key_in = analogRead(0); // read the value from the sensor
19   digitalWrite(13,LOW);
20   key = get_key(adc_key_in); // convert into key press
21
22   if (key != oldkey) // if keypress is detected
23   {
24     delay(50); // wait for debounce time
25     adc_key_in = analogRead(0); // read the value from the sensor
26     key = get_key(adc_key_in); // convert into key press
27     if (key != oldkey)
28     {
29       oldkey = key;
30       if (key >=0){
31         digitalWrite(13,HIGH);
32         switch(key)
33         {
34           case 0:Serial.println("S1 OK");
35             break;
36           case 1:Serial.println("S2 OK");
37             break;
38           case 2:Serial.println("S3 OK");
39             break;
40           case 3:Serial.println("S4 OK");
41             break;
42           case 4:Serial.println("S5 OK");
43             break;
44         }
45       }
46     }
47   }
48   delay(100);
49 }
50 // Convert ADC value to key number
51 int get_key(unsigned int input)
52 {
53   int k;
54   for (k = 0; k < NUM_KEYS; k++)
55   {

```

```
56     if (input < adc_key_val[k])
57     {
58         return k;
59     }
60 }
61     if (k >= NUM_KEYS)k = -1; // No valid key pressed
62     return k;
63}
```

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