ADKeyboard Module (SKU: DFR0075)
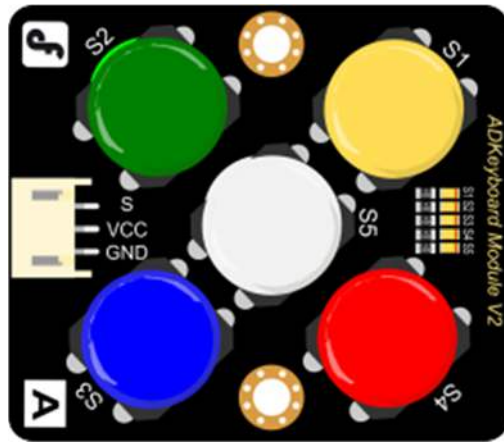

ADKeyboard Module (SKU: DFR0075)

Contents

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.
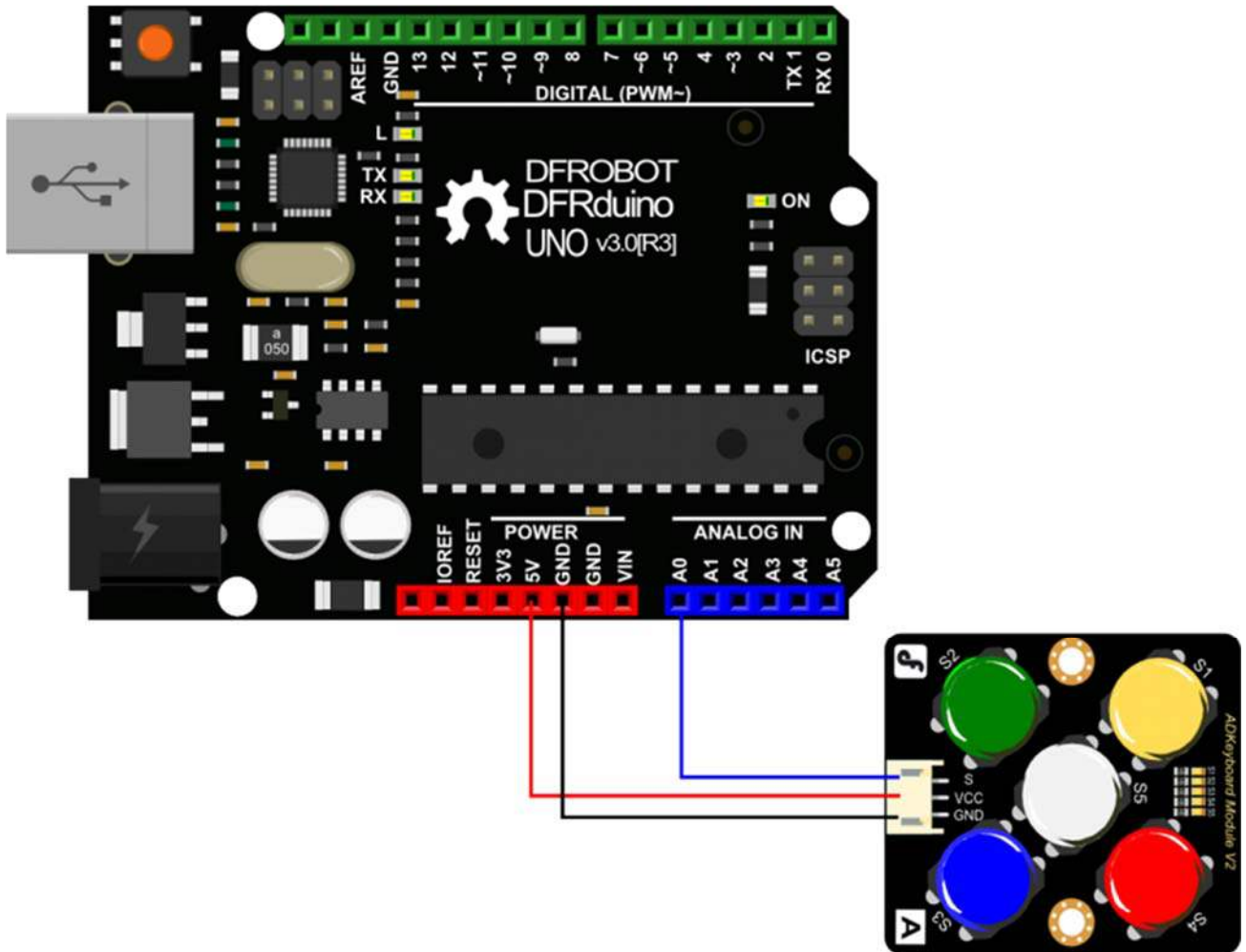
Specifications

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

Pin out Diagram

Wiring Diagram

Sample Code

```
//ADKeyboard Module
//Developed by DFRobot.com
//Last modified 30/11/2011
//Version 1.0
int adc_key_val[5] ={600,650, 700,  800, 900 };
int NUM_KEYS = 5;
int adc_key_in;
int key=-1;
int oldkey=-1;
void setup()
{
  pinMode(13, OUTPUT);  //we'll use the debug LED to output a heartbeat
  Serial.begin(9600); // 9600 bps
}


void loop()
{
  adc_key_in = analogRead(0);    // read the value from the sensor
  digitalWrite(13,LOW);
  key = get_key(adc_key_in);  // convert into key press

  if (key != oldkey)   // if keypress is detected
   {
    delay(50);  // wait for debounce time
    adc_key_in = analogRead(0);    // read the value from the sensor
    key = get_key(adc_key_in);    // convert into key press
    if (key != oldkey)
    {
      oldkey = key;
      if (key >=0){
        digitalWrite(13,HIGH);
        switch(key)
         {
```

```
            case 0:Serial.println("S1 OK");
                    break;
            case 1:Serial.println("S2 OK");
                    break;
            case 2:Serial.println("S3 OK");
                    break;
            case 3:Serial.println("S4 OK");
                    break;
            case 4:Serial.println("S5 OK");
                    break;
        }
      }
    }
  }
 delay(100);
}
// Convert ADC value to key number
int get_key(unsigned int input)
{
    int k;
    for (k = 0; k < NUM_KEYS; k++)
    {
      if (input < adc_key_val[k])
     {
            return k;
        }
    }
       if (k >= NUM_KEYS)k = -1;  // No valid key pressed
       return k;

}
```