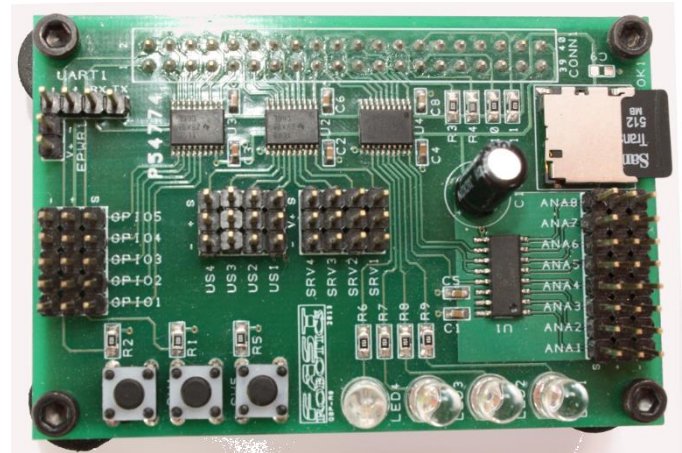


## Robot Shield (#810001)

### Key Features

- 8 Analog Inputs
- 9 GPIO
- 4 LED's
- MicroSD Card Slot
- 2 User Switches
- UART Interface (FTDI compatible)
- Reset Switch
- 5V Power Input
- Servo Power Input



### Specifications

- Dimensions: 2 in x 3 in (50.8 mm x 72.6 mm)
- GPIO Voltage (V<sub>in</sub>): 5V Max
- Servo Voltage (V<sub>Servo</sub>): 6V Max
- Current Sourcing/Sinking: 40 mA per I/O Pin
- Input Voltage (V<sub>in</sub>): 5V
- Max Total Current Draw (not including V<sub>Servo</sub> Pins): 100 mA
- Max data rate: 20 Mbps

### Pinout

#### Servo Port

<i>Pin:</i>	S	+	-
SRV1	PWM (P16)	V <sub>Servo</sub>	GND
SRV2	PWM (P15)	V <sub>Servo</sub>	GND
SRV3	PWM (P14)	V <sub>Servo</sub>	GND
SRV4	PWM (P13)	V <sub>Servo</sub>	GND

### LED's

<i>Pin:</i>	Propeller Pin
LED1	P20
LED2	P19
LED3	P18
LED4	P17

### GPIO Port

<i>Pin:</i>	S	+	-
GPIO1	P6	Vin	GND
GPIO2	P5	Vin	GND
GPIO3	P4	Vin	GND
GPIO4	P3	Vin	GND
GPIO5	P2	Vin	GND
GPIO6	P12	Vin	GND
GPIO7	P11	Vin	GND
GPIO8	P10	Vin	GND
GPIO9	P9	Vin	GND

### Analog In Port

<i>Pin:</i>	S	+	-
ANA1	Analog In 0 (U1 Pin 1)	Vin	GND
ANA2	Analog In 1 (U1 Pin 2)	Vin	GND
ANA3	Analog In 2 (U1 Pin 3)	Vin	GND
ANA4	Analog In 3 (U1 Pin 4)	Vin	GND
ANA5	Analog In 4 (U1 Pin 5)	Vin	GND
ANA6	Analog In 5 (U1 Pin 6)	Vin	GND
ANA7	Analog In 6 (U1 Pin 7)	Vin	GND
ANA8	Analog In 7 (U1 Pin 8)	Vin	GND

### ADC Digital Interface

MCP3208 (U1) Pin	Propeller Pin
CLK (Pin 13)	P22
Data In/Out (Pin 11, Pin 12)	P21
Chip Select (Pin 10)	P23

### Switches

Switch	Propeller Pin
SW1	P0
SW2	P1
SW5	RESn

### UART/Power Header (UART1)

Pin	Function (Propeller Pin)
1	TX (P8)
2	RX (P7)
3	+5V
4	GND

#### Servo Power Header (EPWR1)

Pin	Function
1	Servo Vin
2	GND

#### MicroSD Digital Interface (SOK1)

SD Pin	Propeller Pin
DAT0	P24
CLK	P25
CMD	P26
CD/DAT3	P27

#### Other Notes

- Micro SD Card should be formatted as FAT16, up to 512 MB has been verified.

#### Sample Code

Main Repository: [https://github.com/fastrobotics/820001\\_robot-shield](https://github.com/fastrobotics/820001_robot-shield)

#### Ordering Information

##### ROBOTSHIELD-A

A: Assembled

0: No Assembly

1: Fully Assembled