flutter Main Board Specifications

System Ground — GND
System Pins — S4, S5, S6, S7, S8, S9, S10, S11
Analog/Digital Pins — A4, A3, A2, A1, A0
System Buttons — B2, B1
USB Breakout — D-, D+, UVCC
System Ground — GND

GND — System Ground
S3, S2, S1, S0 — System Pins
D10, D9, D8, D7, D6, D5, D4, D3, D2, D1, D0 — Digital Pins
RST — Board Reset
3.3V — 3.3v Output
RAW — 4-16v input
GND — System Ground
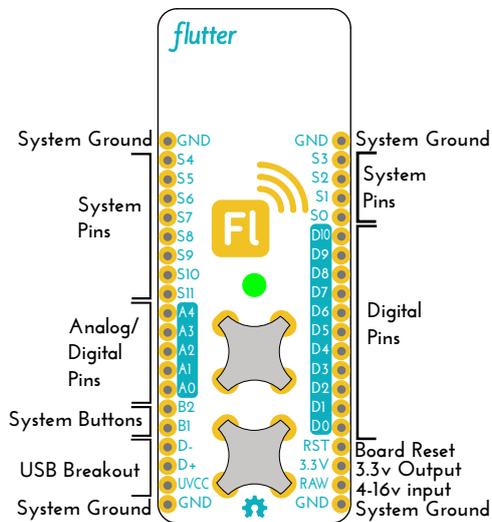
Pin Name - Extra Function

Digital Pins

D0 - I2C Data
D1 - I2C Clock
D2 - Serial RX
D3 - Serial TX
D4 - JTAG
D5 - JTAG
D6 - JTAG
D7 - JTAG
D8 - PWM1
D9 - PWM2
D10 - PWM3

Analog Pins

A0 - Serial 1 RX
A1 - Serial 1 TX
A2 - PWM3
A3 - PWM0
A4 - PWM0

System Pins

S0 - USB Sense
S1 - RGB LED - Red
S2 - RGB LED - Blue
S3 - RGB LED - Green
S4 - Radio GPIO 0
S5 - Radio GPIO 3
S6 - Radio GPIO 2
S7 - SPI Chip Select 0
S8 - SPI Master Out
S9 - SPI Master In
S10- SPI Clock
S11 - VIN Sense

Digital Pins can be set as inputs or outputs.
As outputs, pins can be set via programming to be either 3.3 volts or zero volts (ground).
Outputs are useful for controlling all manner of digital circuits, from LED lights and motors, to more complex things.
As inputs, the digital state of the pin can be read into software. A voltage near 3.3v returns an input level of 1, and a voltage near zero returns an input level of 0. Code can be written that automatically triggers when a pin changes, which may happen when a button is pressed, or when a motion sensor triggers.

Analog Pins have the same features as Digital Pins but can also read voltage levels between 0v and 3.3v as an analog value.
Analog pins are great for reading things like temperature sensors or adjustment knobs.

Flutter Basic

2.62"

0.9" (pins)

Flutter Pro

2.1"

2.19"

0.1"

1"

Multicolor LED

Two user buttons

Voltage regulator (4-16v input)

64MHz ARM Microprocessor

Integrated Antenna (external optional)

USB Power and Data

Lithium Battery Charger

Cryptographic Security Chip

Digital Radio
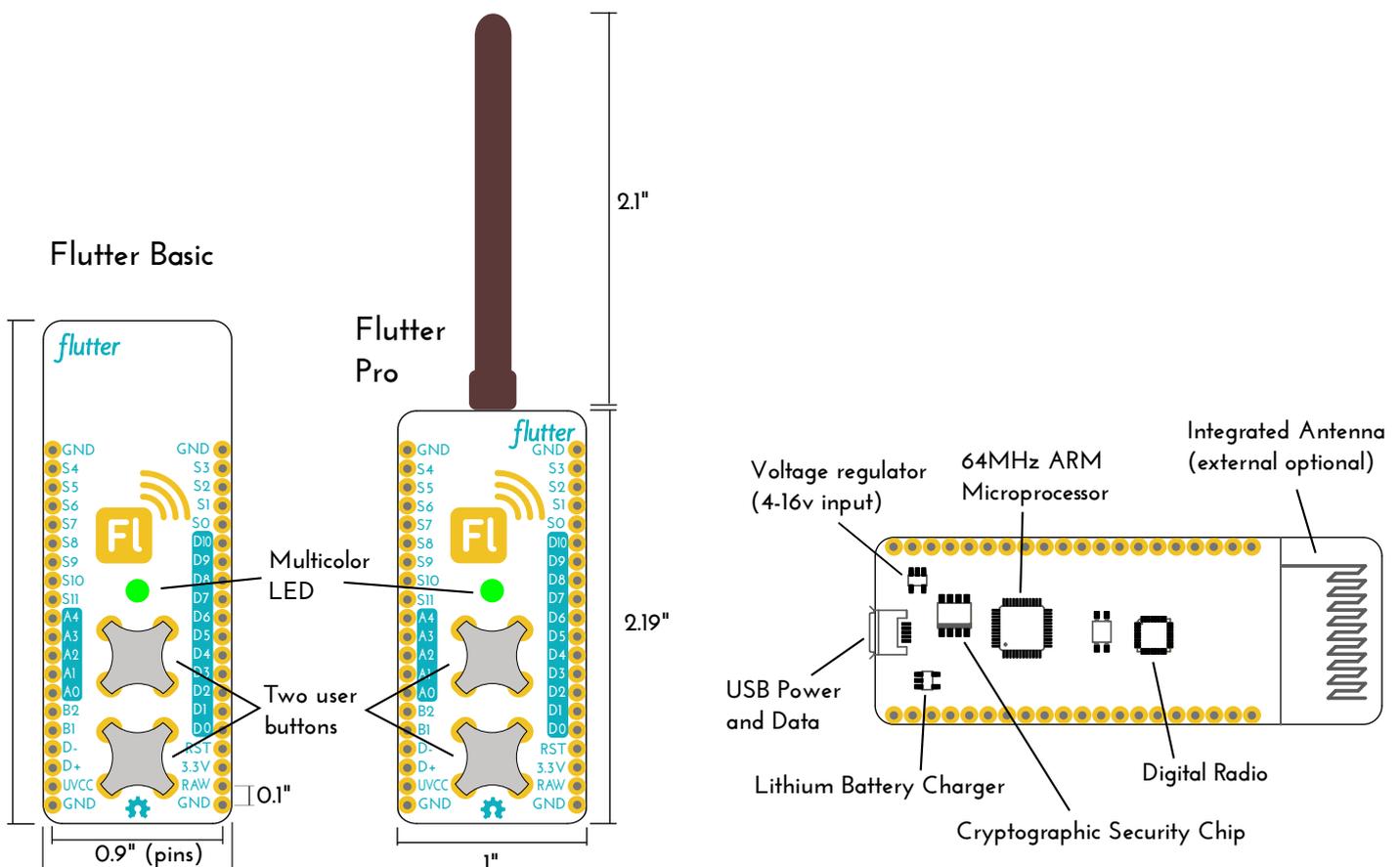
Full System Pin Mapping

Board Pin	Label	Primary Function	Other Function
1	GND	Common Ground	
2	RAW	Raw Input 3.6v-16v DC	
3	3.3V	3.3v output 100mA Max	
4	RST	Reset (Active Low)	
5	D0	Digital Input/Output	I2C Data
6	D1	Digital Input/Output	I2C Clock
7	D2	Digital Input/Output	Serial RX
8	D3	Digital Input/Output	Serial TX
9	D4	Digital Input/Output	JTAG TDI
10	D5	Digital Input/Output	JTAG TDO
11	D6	Digital Input/Output	JTAG TCK
12	D7	Digital Input/Output	JTAG TMS
13	D8	Digital Input/Output	PWM1
14	D9	Digital Input/Output	PWM2
15	D10	Digital Input/Output	PWM3
16	S0	System	USB Sense
17	S1	LED Control	RGB LED - Red
18	S2	LED Control	RGB LED - Blue
19	S3	LED Control	RGB LED - Green
20	GND	Common Ground	
21	GND	Common Ground	
22	S4	Radio Special Function	Radio GPIO 0
23	S5	Radio Special Function	Radio GPIO 3
24	S6	Radio Special Function	Radio GPIO 2
25	S7	Radio Communications	SPI Chip Select 0
26	S8	Radio Communications	SPI Master Out
27	S9	Radio Communications	SPI Master In
28	S10	Radio Communications	SPI Clock
29	S11	System	Input Voltage Sense
30	A4	Analog Input & Digital I/O	PWM0
31	A3	Analog Input & Digital I/O	PWM0
32	A2	Analog Input & Digital I/O	PWM3
33	A1	Analog Input & Digital I/O	Serial 1 TX
34	A0	Analog Input & Digital I/O	Serial 1 RX
35	B2	Button 2	Analog Input & Digital I/O
36	B1	Button 1	ERASE
37	D-	USB DDM	
38	D+	USB DDP	
39	UVCC	USB +5v	
40	GND	Common Ground	