Universal Serial Breakout Scheme

Axoloti Core

20-Pin Generic FFC

ESP32

| SPI-0 | SPI-1 | SPI-2 | SPI-3 | I2C-0 | I2C-1 | I2C-2 | I2C-3 |

SPI-0
- ADC
- Knob-0
- ⋮
- Knob-7

SPI-1
- ADC
- JOY0
- ⋮
- JOY0

I2C-0
- I2C Mux
- Display 0
- ⋮
- Display 3

JOY Button
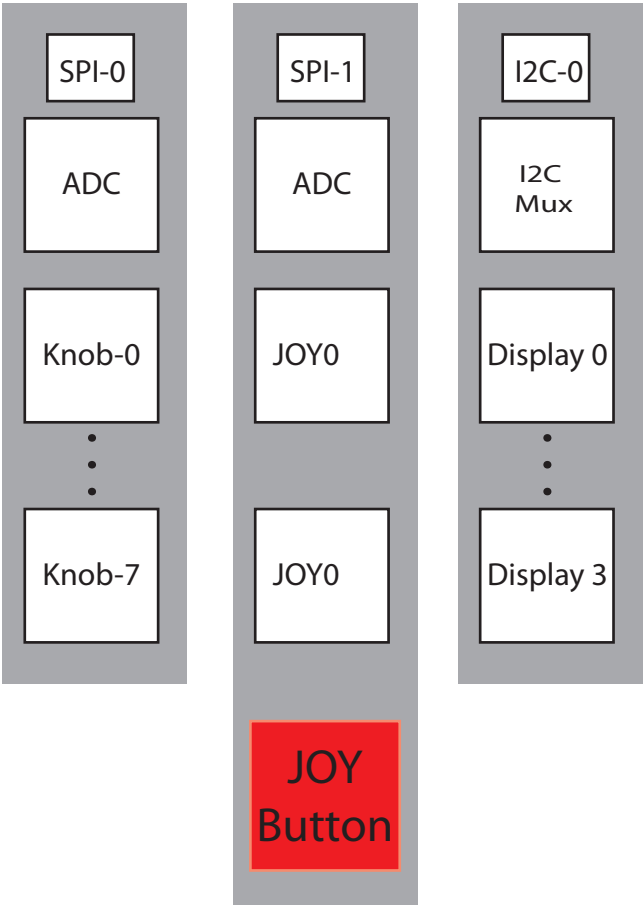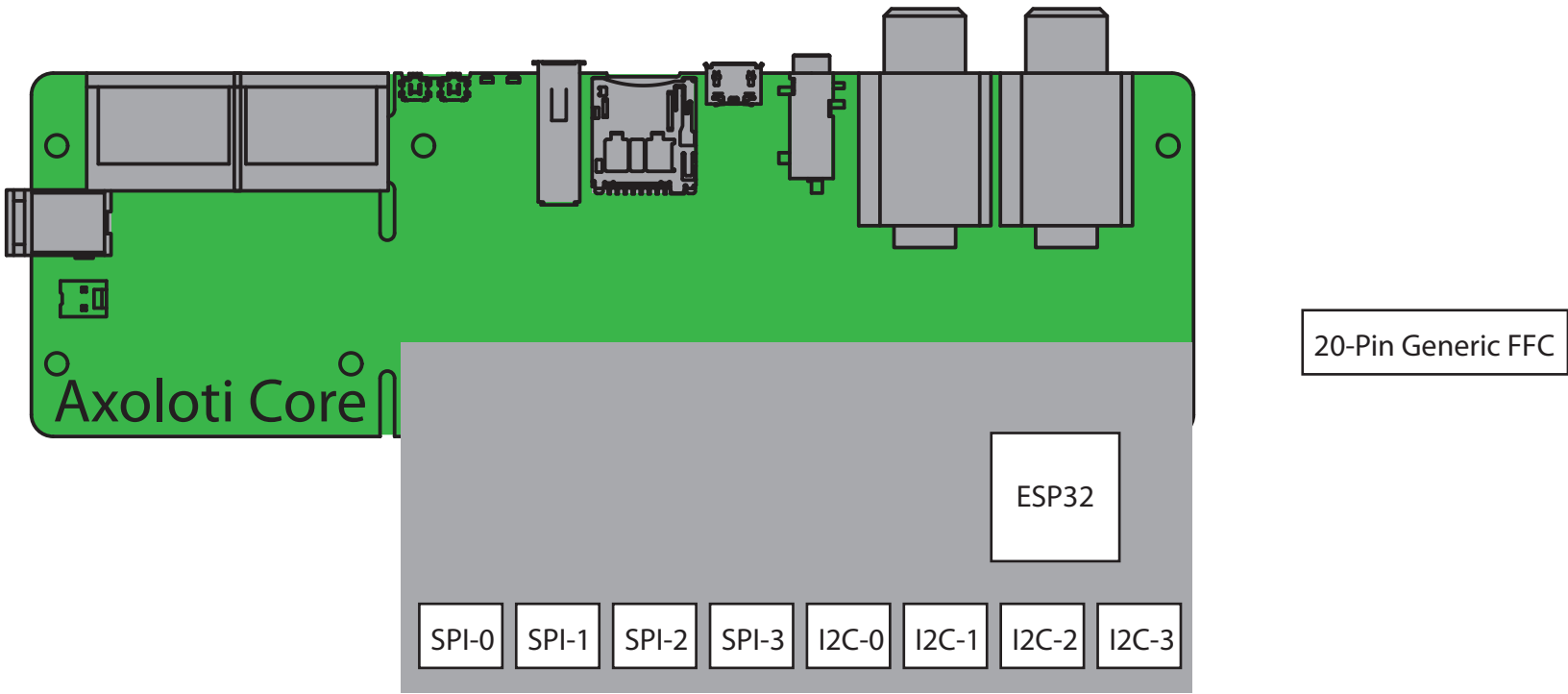
Each module has it's own brain
Basic serial communication to the Axo core

20-Pin Generic FFC

Axoloti Core

20-Pin Generic FFC

ESP32

SPI-0	SPI-1	I2C-0
ADC	ADC	I2C Mux
Knob-0	JOY0	Display 0
⋮	⋮	⋮
Knob-7	JOY0	Display 3
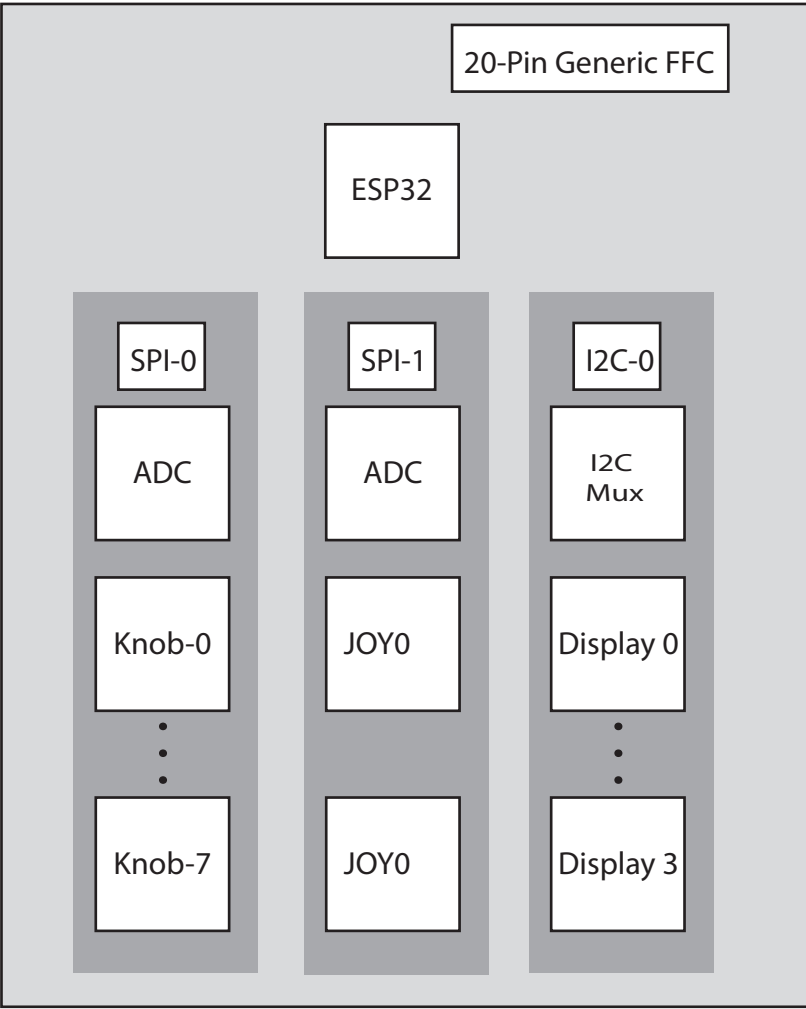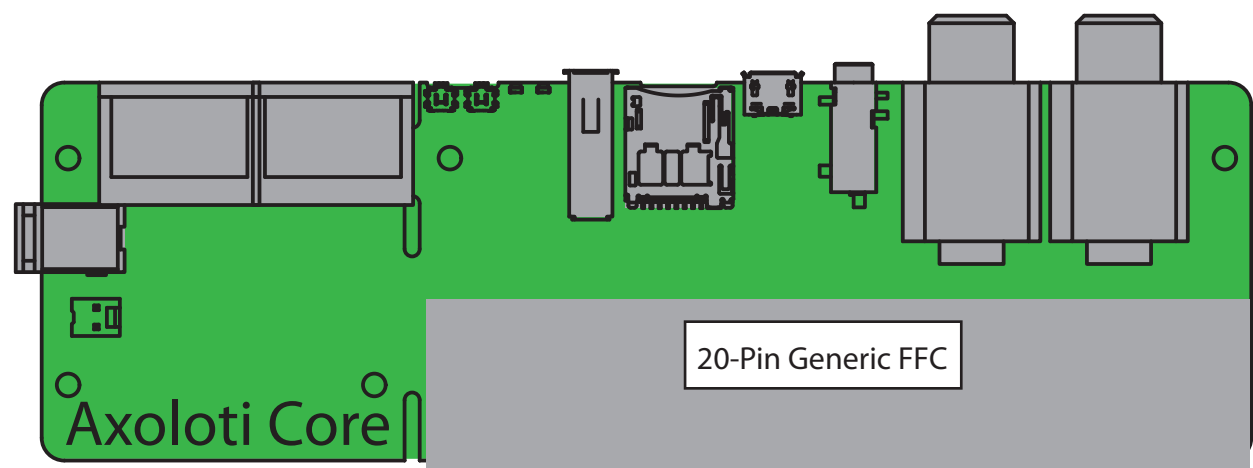
Sketching other modules to think about needs across designs

Axoloti Core

20-Pin Generic FFC

20-Pin Generic FFC

Eurorack PWR Con

ESP32

SPI-0	SPI-1	I2C-0
ADC	ADC	I2C Mux
Knob-0	JOY0	Display 0
⋮	⋮	⋮
Knob-7	JOY0	Display 3

Generic Eurorack Analog I/O

20-Pin Generic FFC

Eurorack PWR Con

CV In 0	Atten Ckt 0		Amp Ckt 0	CV Out 0
⋮	⋮	ESP32	⋮	⋮
CV In 7	Atten Ckt 7		Amp Ckt 7	CV Out 7

Trig / Gate In 0	Digital Buffer	Digital Buffer	Trig / Gate Out 0
⋮			⋮
Trig / Gate In 7			Trig / Gate Out 7