ROBORACING IAARRC / SPARKFUN SPEED DEMONS Block Diagram

Battery

Lidar

USB Camera

HDMI Display

USB

USB

HDMI

Physical Estop Button / Switch

Joule

TX / RX

ATMega

Digital I/O

Encoder

TX / RX

PWM CH1

PWM CH2

E-Stop Mosfet

Digital I/O

ATTiny

Select Digital I/O

Mux

CH1 PWM

ESC / Motor Control

CH2 PWM

Steering Servo

SPI

RC CH1 PWM

RC CH2 PWM

RC CH3 PWM

ESC Power Input

RF Chip

RC Receiver
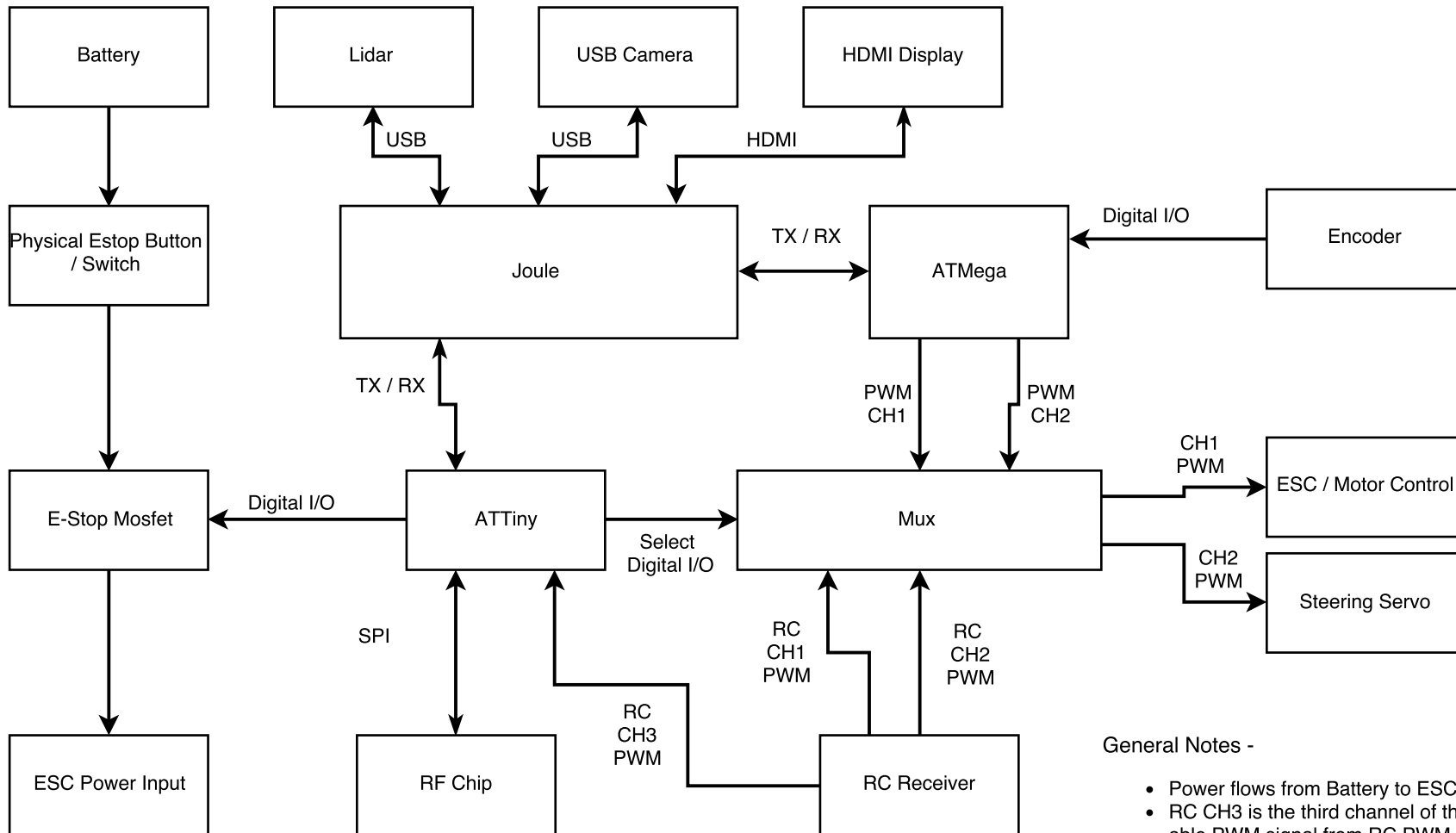
General Notes -

- Power flows from Battery to ESC Power input
- RC CH3 is the third channel of the RC controller. It is a toggle-able PWM signal from RC PWM low to High. It is used to control whether the car is in Computer drive or RC Drive Modes.
- RF chip is used to control remote E-stop