

### firmware

+ phone : RTx  
+ ctrl : DACController  
+ sampler : SignalSampler  
+ scanner : Scanner

+ setup()  
+ look()

### scanner : Scanner

- controller : DACController  
- sampler : SignalSampler  
- phone : RTx  
- lineLength : int  
- pixels : \*int  
- scanning : bool

Scanner(const DACController&, const SignalSampler&, const RTx&, const int lineLength);  
~Scanner();  
+ int reset();  
+ int start();  
+ int stop();  
+ unsigned long getLapsedTime();

### controller : DACController

- stepSize : int  
- lineSize : int  
- useRNG : bool

- dataPin : int  
- clockPick : int  
- loadPin : int  
- ldacPin : int

- currentStep : unsigned int

- setBitOn() : int  
- setBitOff() : int

- loadDAC() : int

- go(int, int) : int

- setCoordinates() : int

- currentX : int  
- currentY : int

+ DACController() : DACController  
+ DACController(int, int, int, int, int, int, bool) : DACController  
+ ~DACController();  
+ reset(int, int, int, int, int, int, bool) : unsigned int  
+ increaseVoltage() : unsigned int  
+ decreaseVoltage() : unsigned int  
+ eol() : unsigned int  
+ getLineSize() : int  
  
+ nextLine() : unsigned int  
  
+ reset() : unsigned int  
+ getVoltage(int) : int

### sampler : SignalSampler

- inputApin : int  
- inputBpin : int  
- sampleSize : int

+ SignalSampler(void);  
+ SignalSampler(int, int, int);  
+ ~SignalSampler();  
+ init(int, int, int) : int  
+ detectPixel() : int  
+ reset() : int

### phone : RTx

- inputCount : unsigned long  
- outputCount : unsigned long

+ RTx();  
+ reset() : void  
+ sendData(int[], int) : int  
+ sendString(String) : void  
+ listen() : String

text