

GUI

Display
+ initDisplay() + ClearAreaDisp(in pointX: unsigned short, in pointY: unsigned short, in width: unsigned short, in height: unsigned short) + initConditioning() + initOcclusion() + initSetup() + moveSquare(in startX: unsigned short, in startY: unsigned short, in endX: unsigned short, in endY: unsigned short, in width: unsigned short, in height: unsigned short) + updateConditioning(in *buttonPressed: boolean) + updateOcclusion(in *buttonPressed: string) + updateSetup(in *state: boolean) + getNoCycles(): unsigned short + setNoCycles(in value: unsigned short) - updateTime_left(in value: unsigned short) - updateNoOfCycles(in value: string) - updateStopWatchTime(in minutes: unsigned short, in seconds: unsigned short)
Button
+ readModeSwitch(): unsigned short + startStopConditioning(in startButtonPressed: boolean): boolean + btPressed(in btPressed: boolean): boolean + startStopOcclusion(in StartButtonPressed: boolean): boolean + changer(in state: unsigned short): unsigned short + selector(in state: unsigned short): unsigned short

Logic

DigitalFiltering
+ averagingZeroGroupDelay(in peaks[]: unsigned short, in peakArrayLength: unsigned short, in *totalNumberOfPeaks: unsigned short, in alpha: double)
BPAAlgorithm
+ calculateMAP(in peaks[]: unsigned short, in cuffPressure[]: unsigned short, in peakArrayLength: unsigned short, in *totalNumberOfPeaks: unsigned short) + calculateSYS(in peaks[]: unsigned short, in cuffPressure[]: unsigned short, in peakArrayLength: unsigned short, in *totalNumberOfPeaks: unsigned short, in MAP: unsigned short) + calculateDIA(in peaks[]: unsigned short, in cuffPressure[]: unsigned short, in peakArrayLength: unsigned short, in *totalNumberOfPeaks: unsigned short, in MAP: unsigned short)
Senarios
+ bloodPressure(in *MAP: unsigned short, in *SYS: unsigned short, in *DIA: unsigned short, in bps: BPAAlgorithm, in pc: <no type>, in df: DigitalFiltering, in util: Utilities)
MemoryParser
+ GetNoOfCycles(): unsigned short + setNoOfCycles(in val: unsigned short) + getTimePerCycle(): unsigned short + setTimePerCycle(in val: unsigned short) + writeToSDCard(in timeStamp: string, in occlusionComplete: boolean, in occlusionPressure: unsigned short, in sys: unsigned short, in map: unsigned short, in dia: unsigned short, in interruptOcclusion: boolean)
Timer
+ setTimeStamp() + getTimeStamp(): Time + countdown(in totalTime: unsigned short) + stopWatch() + displayTimer(): string + getTimerStatus(): boolean + setTimerStatus(in val: boolean) + timeToString(): string

Data

PressureControl	ExternalMemory	InternalMemory
+ runMotor() + runValve() + turnMotorOn(in speed: unsigned short) + turnMotorOff() + turnValveOn() + turnValveOff()	+ initializeSDCard() + generateRandomNumber(): string + checkFilesSD(in dir: File, in val: string): string + writeToSDCard(in textToSD: string) + createFileTemplate(in filename: string)	+ writeToEEPROM(in adr: integer, in value: unsigned short) + readFromEEPROM(in adr: integer): unsigned short
PressureSampling		
+ getCuffPressure(): unsigned short + runningPeakDetect(in peaks[]: unsigned short, in cuffPressure[]: unsigned short, in peakArrayLength: unsigned short, in *totalNumberOfPeaks: unsigned short, in pc: PressureControl, in util: Utilities)		

Utilities
+ rawToMmHg(in rawPressure: unsigned short): double + mmHgToRaw(in mmHgPressure: unsigned short): double

Libraries
+ Arduino + EEPROM + SD + SPI + DS1302 + Adafruit_GFX + Adafruit_ILI9340