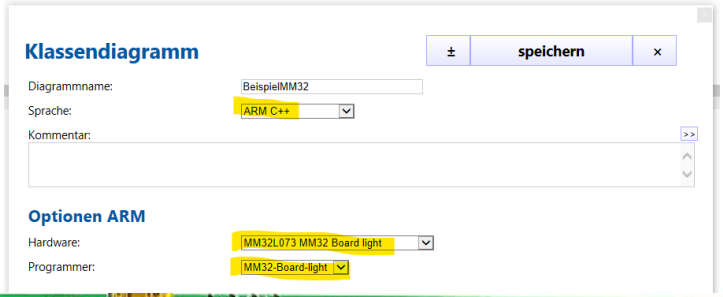
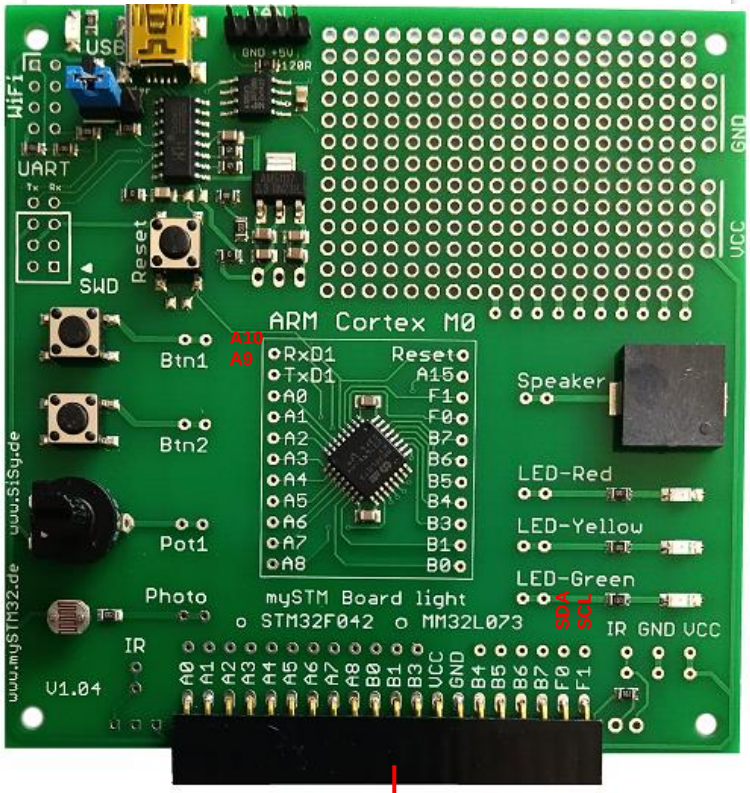




Pinbelegung der Erweiterungsbuchse
Pin assignments of the add-on-socket

1 = Port A.0	2 = Port A.1	3 = Port A.2	4 = Port A.3	5 = Port A.4	6 = Port A.5	7 = Port A.6	8 = Port A.7	9 = Port A.8	10 = Port B.0	11 = Port B.1	12 = Port B.3	13 = 3,3 V	14 = GND	15 = Port B.4	16 = Port B.5	17 = Port B.6	18 = Port B.7	19 = Port F/D.0	20 = Port F/D.1

Timer:

	TIM1	TIM2	TIM3	TIM14	TIM16	TIM17
	APB2	APB1 (max 48MHz)			APB2 (max 48MHz)	
CH1	A8 (AF2)	A0 (AF2)	A6 (AF1)	A4 (AF4)	A6 (AF5)	A7 (AF5)
CH2	A9 (AF2)	A1 (AF2)	A7 (AF1)			
CH3	A10 (AF2)	A2 (AF2)	B0 (AF1)			
CH4	A11 (AF2)	A3 (AF2)	B1 (AF1)			
ETR	A12 (AF2)	A5 (AF2)				

USART:

	USART1		USART2	
	APB2 (max 48MHz)		APB1 (max 48MHz)	
TX	**A9** (AF1)	B6 (AF0)	A2 (AF1)	A14 (AF1)
RX	**A10** (AF1)	B7 (AF0)	A3 (AF1)	A15 (AF1)

I²C:

	SDA		SCL	
	APB1 (8MHz, max 48MHz)			
I2C1	**D0** (AF1)	**A10** (AF4)	**D1** (AF1)	**A9** (AF4)

SPI:

	MOSI		MISO		SCK	
	APB2 (max 48MHz)					
SPI1	A7 (AF0)	B3 (AF0)	A6 (AF0)	B4 (AF0)	A5 (AF0)	B5 (AF0)

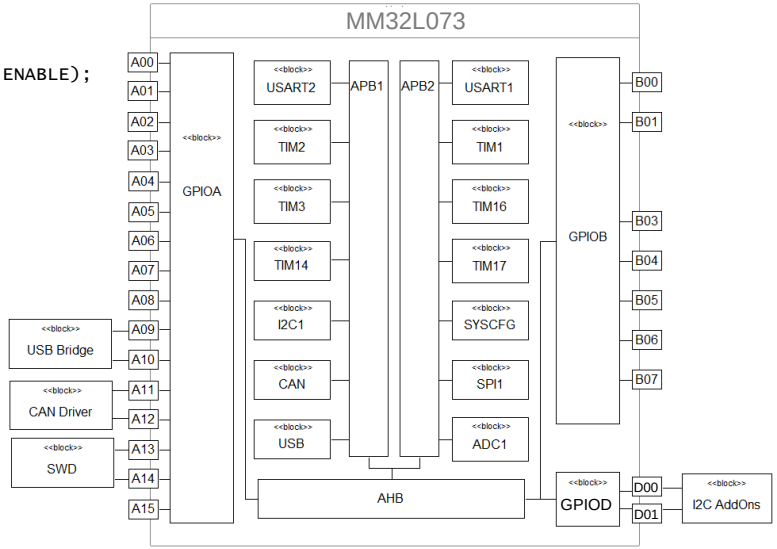
Simple C Codebeispiel / C code example:

```
#include <stddef.h>
#include <stdlib.h>
#include "hal_rcc.h"
#include "hal_gpio.h"
#include "myARM.h"
#include "hardware.h"

void initApplication()
{
    // init code
    SysTick_Config(SystemCoreClock/100);
    // ...
    RCC_AHBPeriphClockCmd(RCC_AHBPeriph_GPIOB,ENABLE);
    GPIO_InitTypeDef led;
    led.GPIO_Mode  = GPIO_Mode_Out_PP;
    led.GPIO_Pin   = GPIO_Pin_0;
    led.GPIO_Speed = GPIO_Speed_2MHz;
    GPIO_Init(GPIOA,&led);
}
int main(void)
{
    SystemInit();
    initApplication();
    do{
        GPIO_SetBits(GPIOA,GPIO_Pin_0);
        waitMs(200);
        GPIO_ResetBits(GPIOA,GPIO_Pin_0);
        waitMs(200);
    } while (true);
    return 0;
}
extern "C" void SysTick_Handler(void)
{
    // Application SysTick default 10ms
    // ...
}
```

CAN:

	CAN	
	APB1 (max 48MHz)	
RX	**A11** (AF4)	B8 (AF4)
TX	**A12** (AF4)	B8 (AF4)



Interrupts MM32L073: extern "C" void vektor ( ) { … ClearITPendingBit(...); }

```
EXTI0_1_IRQn            //EXTI Line 0 and 1          extern "C" void EXTI0_1_IRQHandler()
EXTI2_3_IRQn            //EXTI Line 2 and 3          extern "C" void EXTI2_3_IRQHandler()
EXTI4_15_IRQn           //EXTI Line 4 to 15          extern "C" void EXTI4_15_IRQHandler()

DMA1_Channel1_IRQn      //DMA1 Channel 1             extern "C" void DMA1_Channel1_IRQHandler ()
...

ADC1_COMP_IRQn          //ADC Interrupts             extern "C" void ADC1_COMP_IRQHandler()

TIM1_BRK_UP_TRG_COM_IRQn //TIM1 Break, Update, Trigger extern "C" void TIM1_BRK_UP_TRG_COM_IRQHandler()
TIM1_CC_IRQn            //TIM1 Capture Compare       extern "C" void TIM1_CC_IRQHandler()
TIM2_IRQn               //TIM2 Interrupt             extern "C" void TIM2_IRQHandler()
TIM3_IRQn               //TIM3 Interrupt             extern "C" void TIM3_IRQHandler()
TIM14_IRQn              //TIM14 Interrupt            extern "C" void TIM14_IRQHandler()
TIM16_IRQn              //TIM16 Interrupt            extern "C" void TIM16_IRQHandler()
TIM17_IRQn              //TIM17 Interrupt            extern "C" void TIM17_IRQHandler()

I2C1_IRQn               //I2C1 Interrupt             extern "C" void I2C1_IRQHandler()
SPI1_IRQn               //SPI1 Interrupt             extern "C" void SPI1_IRQHandler()
SPI2_IRQn               //SPI2 Interrupt             extern "C" void SPI2_IRQHandler()

UART1_IRQn              //USART1 Interrupt           extern "C" void UART1_IRQHandler()
UART2_IRQn              //USART2 Interrupt           extern "C" void UART2_IRQHandler()

CAN_IRQn                //CAN Interrupts             extern "C" void CAN_IRQHandler()
```

ADC:

ADC	Channel
APB2 (max 14MHz)	
A0	0
A1	1
A2	2
A3	3
A4	4
A5	5
A6	6
A7	7
B0	8
B1	9

Kurzübersicht / short overview myMM32 C++ PEC Portable Embedded Framework (Beispiele / Examples)