

```
.include <m2560def.inc>
.cseg
.org 0x00
rjmp start
.org 0xF6
start: ldi r20,low(RAMEND)
out SPL,r20
ldi r20,high(RAMEND)
out SPH,r20
rcall initMegaMSPI
```

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; ----- ↙
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; The following subroutine initializes the USART0 to MSPI mode and set baud rate to that
; defined by the values passed in r17:r16.
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; ----- ↙
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```
initMegaMSPI:
clr r20
sts UBRR0H,r20
sts UBRR0L,r20
in r20,DDRE
andi r20,0xF0 ; clear the lower four bits
ori r20,0x06 ; configure XCK0, TXD0 for output RxD0 for input
out DDRE,r20 ; "
ldi r20,(1<<RXEN0)|(1<<TXEN0)
sts UCSR0B,r20 ; enable transmitter and receiver
ldi r20,(1<<UMSEL01)|(1<<UMSEL00)|(0<<UCPHA0)|(0<<UCPOL0)
sts UCSR0C,r20 ; select MSPI mode, XCK idle low, sample data on rising edge
sts UBRR0H,r17 ; set up baud rate
sts UBRR0L,r16 ; "
ret
```