```
START BTN
                                                                                                                                                                         SHARP_2
SHARP_3
SHARP_4
SHARP_5
                                                                                                                                                           SHARP 0
                                                                                                                                                                   SHARP 1
                                                                                                                                                                                                                                                                                            Analog Reference
                                                                                                                                                                                                                            Analog pin 10
Analog pin 11
                                                                                                                                                                                                                                                        Analog pin 14
                                                                                                                                                                                                                                                              Analog pin 15
                                                                                                                                                                                                                                                                                                 Digital pin 23
Digital pin 24
                                                                                                                                                   Analog pin 0
                                                                                                                                                                                                                                        Analog pin 12
                                                                                                                                                                                                                                              Analog pin 13
                                                                                                                                                                                                                     Analog pin 9
                                                                                                                                                                                                                                                                                           Digital pin 22
                                                                                                                                                           Analog pin 1
                                                                                                                                                                   Analog pin 2
                                                                                                                                                                                Analog pin 4
                                                                                                                                                                                       Analog pin 5
                                                                                                                                                                                              Analog pin 6
                                                                                                                                                                                                      Analog pin 7
                                                                                                                                                                         Analog pin 3
                                                                                                                                                                                                               Analog pin 8
                                                                                                                                                                                                                                                                        GND
                                                                                                                                                                                                                                                       | S | PK6 (ADC14/PCINT22) | R | PK7 (ADC15/PCINT23) | R | GND | R | VCC | L | PJ7 | R | PA0 (AD0) | L | PA1 (AD1) | R | PA2 (AD2) | R | PA3 (AD3) | R | PA3 (AD2) | R | PA3 (AD3) | R | PA3 (AD2) | R | PA3 (AD3) | R | PA3 (A
                                                                                                                                                                                                                            PK2 (ADC10/PCINT18)
                                                                                                                                                                                                                                   B PK4 (ADC12/PCINT20)
                                                                                                                                                                                                                                               PK5 (ADC13/PCINT21)
                                                                                                                                                                                       ® PF5 (ADC5/TMS)

≅ PF6 (ADC6/PCINT14)
                                                                                                                                                                                                             B PK0 (ADC8/PCINT16)
                                                                                                                                                                                                                    ® PK1 (ADC9/PCINT17)
                                                                                                                                                                                                      SPF7 (ADC7/PCINT15)

□ PF4 (ADC4/TMK)

                                                                                                                             ☐ AVCC
⑥ GND
◎ AREF
② PFO (ADCO)
                                                                                                                                                           哥PF2 (ADC2)
                                                                                                                                                                         PF3 (ADC3)
                                                                                          PG5 (OC0B) 1
   mot1 1 Digital pin 4 (PWM)
                                                                                                                                                                                                                                                                                                                    75 PA3 (AD3)
                                                                                                                                                                                                                                                                                                                                                                          Digital pin 25 UI
                                Digital pin 0 (RX0) PE0 (RXD0/PCINT8) 2
                                                                                                                                                                                                                                                                                                                    74 PA4 (AD4)
                                                                                                                                                                                                                                                                                                                                                                           Digital pin 26 ils_2
              USB
                                                                                             PE1 (TXD0) 3
                                                                                                                                                                                                                                                                                                                    73 PA5 (AD5)
                                                                                                                                                                                                                                                                                                                                                                          Digital pin 27 UI
             USB
                                  Digital pin 1 (TX0)
                                                                                PE2 (XCK0/AIN0) 4
                                                                                                                                                                                                                                                                                                                     72 PA6 (AD6)
                                                                                                                                                                                                                                                                                                                                                                           Digital pin 28 ils_3
                                                                                                                                                                                                                                                                                                                                                                           Digital pin 29 UI
                                                                                                                                                                                                                                                                                                                    71 PA7 (AD7)
   mot1_2
                                                                                PE3 (OC3A/AIN1) 5
                              Digital pin 5 (PWM)
                                                                                                                                                                                                                                                                                                                    70 PG2 (ALE)
                                                                                 PE4 (OC3B/INT4) 6
                                                                                                                                                                                                                                                                                                                                                                           Digital pin 39 UI
   cod1 A
                              Digital pin 2 (PWM)
                                                                                  PE5 (OC3C/INT5) 7
                              Digital pin 3 (PWM)
                                                                                                                                                                                                                                                                                                                    69 PJ6 (PCINT 15)
    cod1 B
                                                                                         PE6 (T3/INT6) 8
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                                                                        PE7 (CLKO/ICP3/INT7) 9
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                                                                                                          VCC 10
                                                                                                                                                                                                                                                                                                                    66 PJ3 (PCINT12)
                                                       VCC
                                                       GND
                                                                                                          GND 11
                                                                                                                                                                                                                                                                                                                    65 PJ2 (XCK3/PCINT11)
                                                                                            PH0 (RXD2) 12
                  BT Digital pin 17 (RX2)
                                                                                                                                                                                                                                                                                                                    64 PJ1 (TXD3/PCINT10)
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                  BT Digital pin 16 (TX2)
                                                                                            PH1 (TXD2) 13
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                                                                                                                                                                                                                                                                                                                                                                         Digital pin 15 (RX3) EXT
                                                                                                                                                                                                                                                                                                                    62 GND
                                                                                            PH2 (XCK2) 14
                                                                                                                                                                                                                                                                                                                                                                          GND
                                                                                            PH3 (OC4A) 15
                                                                                                                                                                                                                                                                                                                    61 VCC
mot1_en Digital pin 6 (PWM)
                                                                                                                                                                                                                                                                                                                                                                          Digital pin 30 ils_4
                                                                                           PH4 (OC4B) 16
                                                                                                                                                                                                                                                                                                                    60 PC7 (A15)
   mot2 1
                             Digital pin 7 (PWM)
                                                                                                                                                                                                                                                                                                                    59 PC6 (A14)
   mot2 2
                             Digital pin 8 (PWM)
                                                                                           PH5 (OC4C) 17
                                                                                                                                                                                                                                                                                                                                                                                                        UI
                                                                                                                                                                                                                                                                                                                                                                          Digital pin 31
mot2 en
                              Digital pin 9 (PWM)
                                                                                            PH6 (OC2B) 18
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                                                                                 PB0 (SS/PCINT0) 19
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                                 Digital pin 53 (SS)
                 SPI
                                                                               PB1 (SCK/PCINT1) 20
                                                                                                                                                                                                                                                                                                                    56 PC3 (A11)
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                 SPI Digital pin 52 (SCK)
                                                                                                                                                                                                                                                                                                                    55 PC2 (A10)
                                                                                                                                                                                                                                                                                                                                                                          Digital pin 35
                                                                                                                                                                                                                                                                                                                                                                                                        UI
                                                                             PB2 (MOSI/PCINT2) 21
                 SPI Digital pin 51 (MOSI)
                                                                                                                                                                                                                                                                                                                                                                          Digital pin 36 I2C_2
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                                                                             PB3 (MISO/PCINT3) 22
                 SPI Digital pin 50 (MISO)
                                                                            PB4 (OC2A/PCINT4) 23
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   mot3 1 Digital pin 10 (PWM)
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   mot3_2 Digital pin 11 (PWM)
                                                                           PB5 (OC1A/PCINT5) 24
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mot3_en Digital pin 12 (PWM)
                                                                                                                                                                                                                                                              cod3_B/I2C
cod2_A
cod2_B
                                                                                                                                                                                                                                                       cod3 A/I2C
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