TECHNICAL DEVELOPMENT CENTER
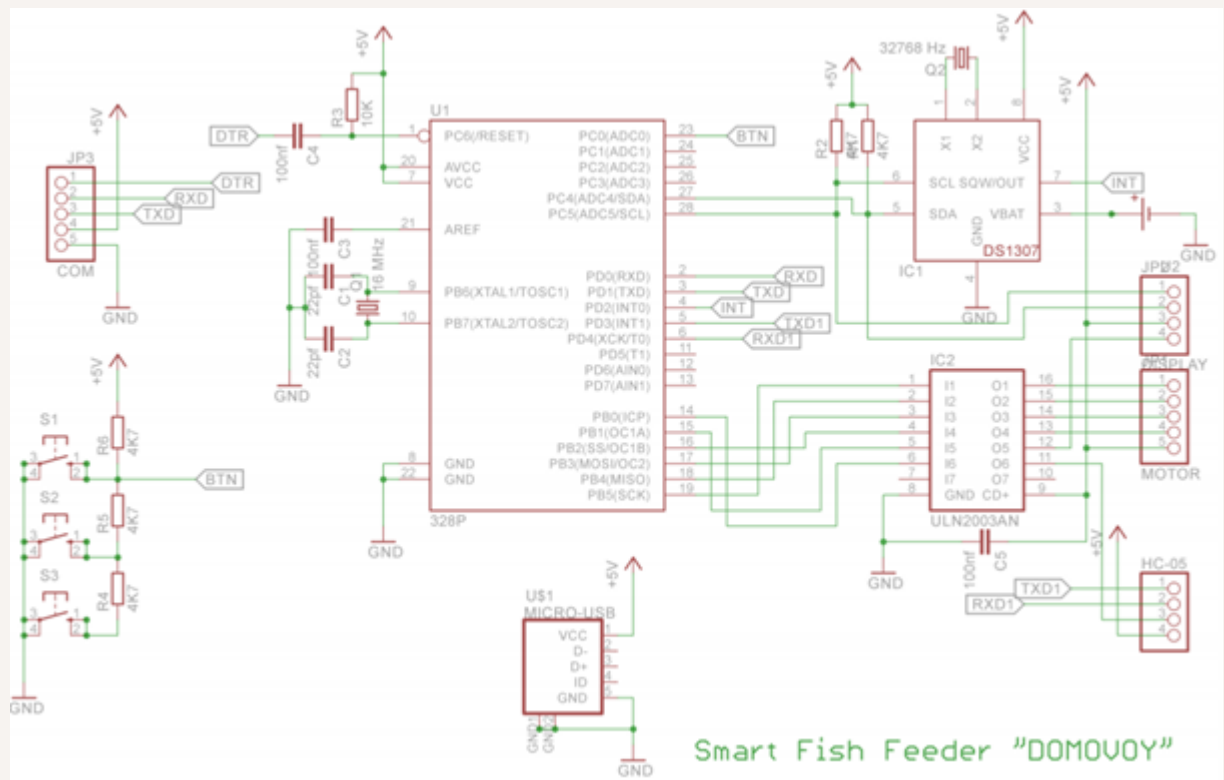
PCB Assembly

Before mounting the Atmega328P microcontroller, you must flash the bootloader before the feeder can be programmed using the Arduino IDE. It can be flashed with a special programmer, or with an Arduino Board. How to do this, see the Arduino website at the following links:

- [Arduino as ISP and Arduino Bootloaders](#)
- [Building an Arduino on a Breadboard](#)

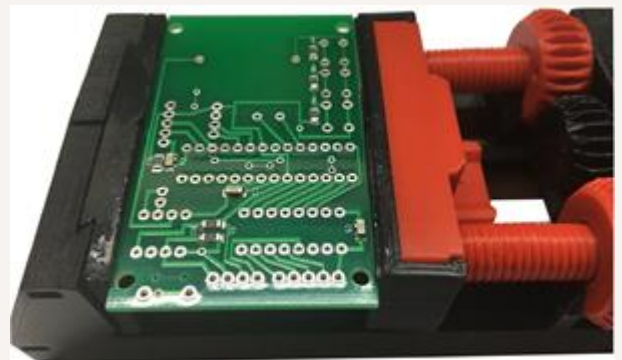A circuit diagram of the feeder "DOMOVOY":

Smart Fish Feeder "DOMOVOY"

Parts required for the assembly of circuit boards:

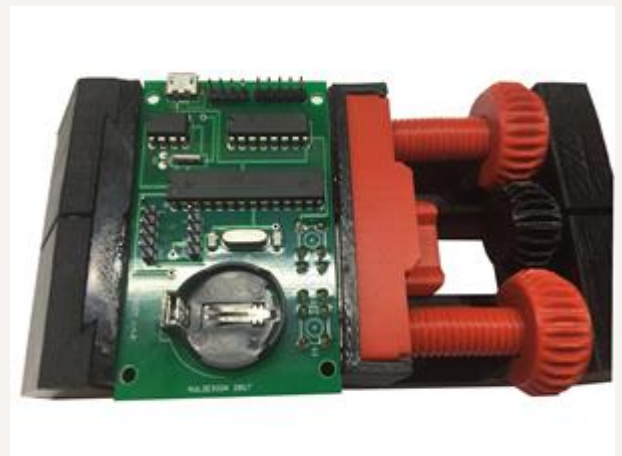| Debice	Name	Value
Capacitors 1206	C1, C2	22 pF
Capacitors 1206	C3, C4, C5	100 nF
Resistors 1206	R1, R2, R4, R5, R6	4K7
Resistor 1206	R3	10 K
Chip RTC	IC1	DS1307
Stepper motor driver	IC2	ULN2003A
Crystal	Q1	16 MHz
Crystal	Q2	32768 Hz
Microcontroller	U1	Atmega328P-PU
Battery holder	U2	CR2032 Holder
Connector	JP1, JP3	5 pin header
Connector	JP2, HC-05	4 pin heade
Buttons	S1, S2, S3	Omron Switch
Connector	U$1	Micro-USB

Prepare parts for assembly.

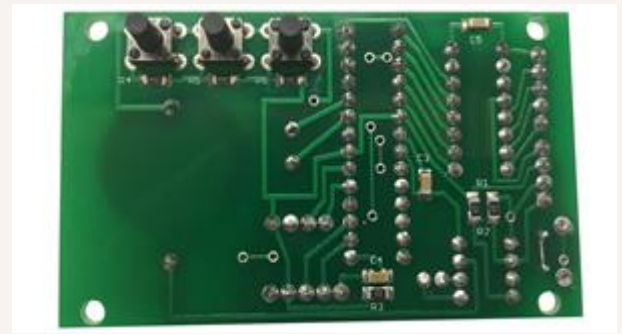First install the smd components.

Install the connector and capacitors on the back of the board.
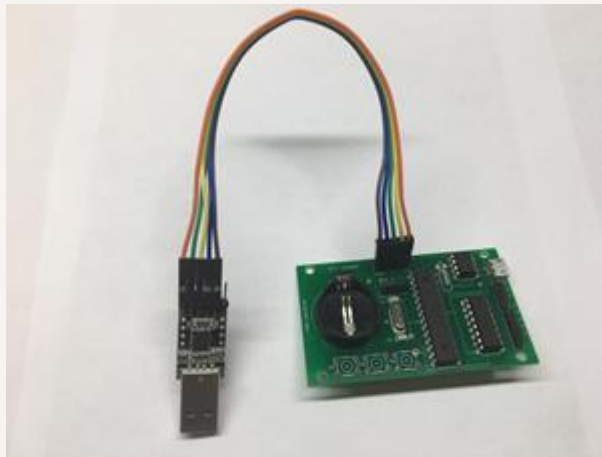

Install the remaining components.

Assembled board, top side.

Assembled Board, bottom side

Use the USB-UART programmer to flash the controller.

Programming device connection diagram.