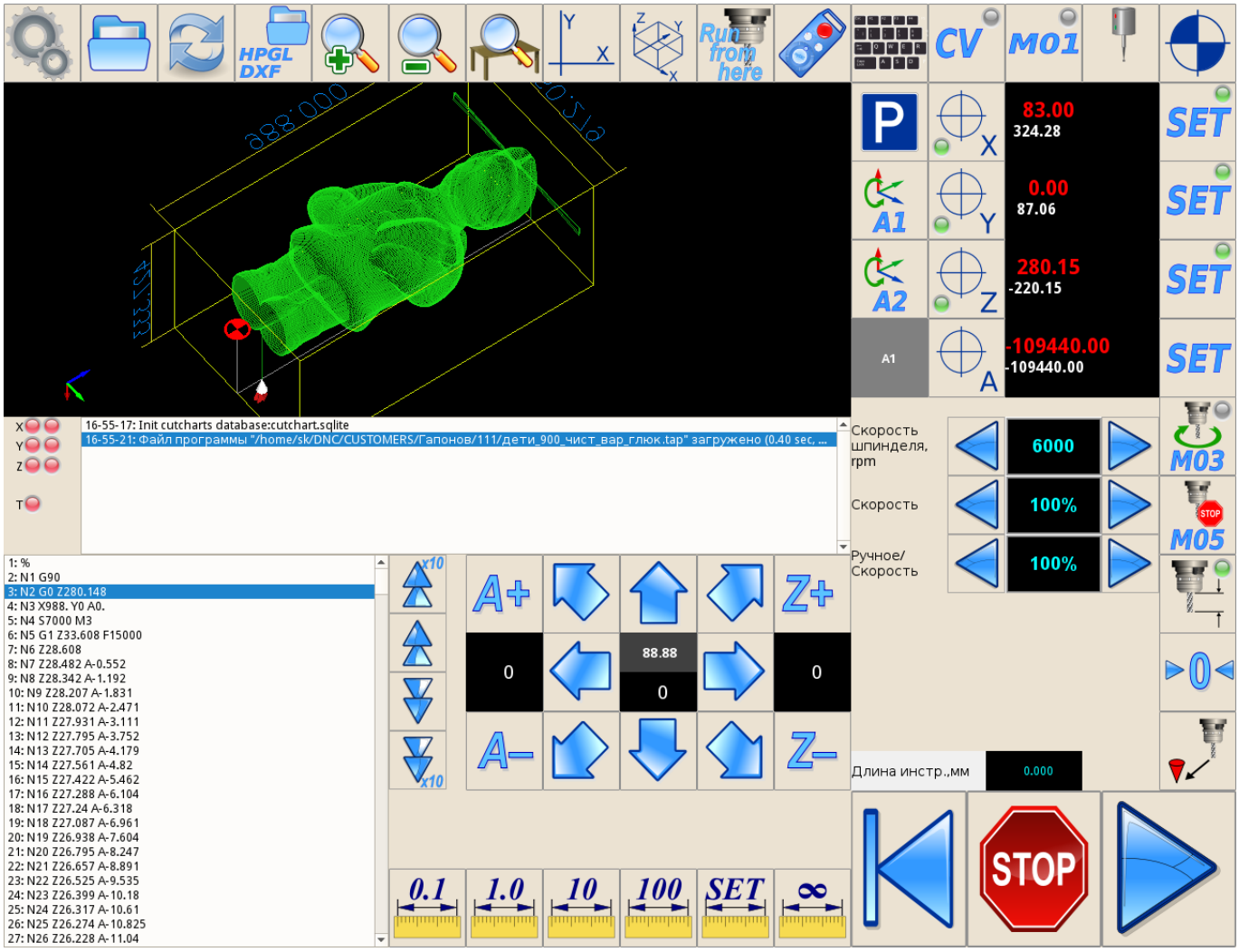
Rotate A axis to 0 position

For some applications A-axis is programmed as endless rotation. Program **A** position may come to many thousands degree after G-code finished. See screenshot example below -



To start new job A position should be roll back to about “0” position. Jogging to “0” may take a long time (can be hundreds of complete turn to run). In some cases it's possible just reset A position, but A axis orientation will be lost. The best way to subtract a number of complete turns (360 degree), then move to “0” for the rest of A.

This can be done through macro-programming.

We will add macro M335 to bring A axis to “0”, then add a button to run the macro.

A-axis program position value is mapped to global variable #5044. In the macro we -

- Check if A-position is positive
- Add a code loop,
- Test in the loop A-coordinate and subtract 360 degree if current coordinate is more than 360 degree (more than 1 turn).
- Store result value as current A-axis position and then
- Move A-axis to “0”.
- Add similar branch for negative A-coordinate value.

M335

```
(Move to position A=0)
#10=#5044 (Get position A)

if [ #10 LT 0 ] 300 (Test If A-position is negative)
(if positive)
N100
if [ #10 LT 180 ] 200 (Test if A-position higher than 180 degrees)

#10 = #10 - 360 (Subtract a whole turn - 360 degree)
JUMP 100 (Jump to begin of the Loop)

N200
JUMP 400

N300
if [ #10 GT -180 ] 400 (Test if A-position lower than -180 degrees)
#10 = #10 + 360 (Add a whole turn - 360 degree)
JUMP 300 (Jump to begin of the Loop)

N400
G90 G10 L70 P#5220 A#10 (store #10 value as A-axis program position)
G90 G0 A0 (rotate A axis to 0)
```

Add "move A to 0" button

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