# error

Ulink-Me was not detected

The cable used to connect the microcontroller did not have data connections.

# error

No Algorithm found for: 00008000H - 00008447H

Verified that the settings under utilities of options for target.

# error

.\Objects\project.axf: error: L6031U: Could not open scatter description file .\Objects\project.sct: No such file or directory

Enabled “use memory layout from target dialog”

Loading does not run the program, you have to load and then debug and then run.

# error

Not enough information to list image symbols.

The C files were not added. Adding them solved the issue

# setting up servo timings

Currently I’m at 2.4 ms -> 20ms duty

Servo duty cycle

Period should be 20,000 us

Range should be 600 – 2400us

Tried 40,000 ARR and 20,000 CCR2 With PSC 36, the wave was a little bigger than 20ms

Prescaler should be 36-1

Should adjust everything to be lower by 1 because it starts from 0

CCR should be clipped to min/max ranges

Looking at the servo from the back (the label side) increase in value makes it go clockwise.

Tried values 1500->2400->4500

4500 was too much

Taking it down to

I’m using tube number 2

How to calculate the baud rate?

Baud = (fck/(16\*usartdiv)

115200 = (72M/(16\*usartdiv))

Usartdiv = (72M/115200)/16

Usartdiv = 39.0625

Fraction = 0.0625 \*16 = 1 => 0x1

Mantissa = 39 => 0x27

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input\_error = required\_height - adc\_val

When input error is +vs -> ball is higher than it should be -> close value -> PID -ve

When input error is -ve -> ball is lower than it should be -> open value -> PID +ve

2300 at 10 mark

2150 at 18 mark

2000 at 30 mark

1600 at top

18 mark is 2580

Try 2400 IR for best result

PID limiter 50

Sampling time 5ms

P = 5

I = 1

D = 2

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Using tube 1

Lowest point IR 1815

First ring 1900

Between 5 and 30 cms

Servo lowest 2300

Servo max 2700

Sampleing time 1000ms

Best values 1:

P=2

I=0.1

D=1

Ts=50ms

H=1750

Limiter=200

Best values 2:

Ts = 100ms

Limiter=50

P=1

I=0.1

D=0.5

Best values 3: