CPE301 – SPRING 2019

Design Assignment 4B\_TASK2

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Primary Github address: https://github.com/yeeun219/submission\_da.git

Directory: cpe301\DesignAssignments\DA4B\T2

1. **COMPONENTS LIST AND CONNECTION BLOCK DIAGRAM w/ PINS**

while (1) //Repeat continuously,adjust the speed,interrupt using pc1/2/3

1. **DEVELOPED CODE OF**

/\*

\* servo\_motor.c

\*

\* Created: 4/30/2019 10:59:07 AM

\* Author : llje2

\*/

#define *F\_CPU* 16000000UL

#include <avr/io.h>

#include <util/delay.h>

int main(void)

{

//configure Timer1

TCCR1A |=(1<<COM1A1)|(1<<COM1B1)|(1<<WGM11); //NON inverted PWM

//PRESCALER=64MODE 14(FAST PWM)

TCCR1B |=(1<<WGM13)|(1<<WGM12)|(1<<CS11)|(1<<CS10);

ICR1=4999; //fPWM=50HZ(PERIOD =20MS STANDARD)

DDRB|=(1<<PB1);

/\* Replace with your application code \*/

while (1)

{

OCR1A=70; //0 degree

*\_delay\_ms*(1000); //wait for 1sec

OCR1A=375; //90 degree

*\_delay\_ms*(1000);

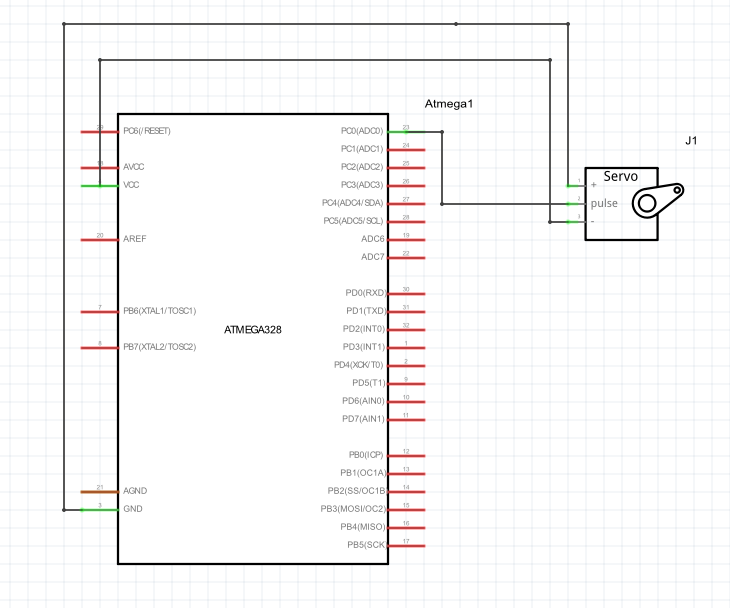
OCR1A=600; //180degree

*\_delay\_ms*(1000);

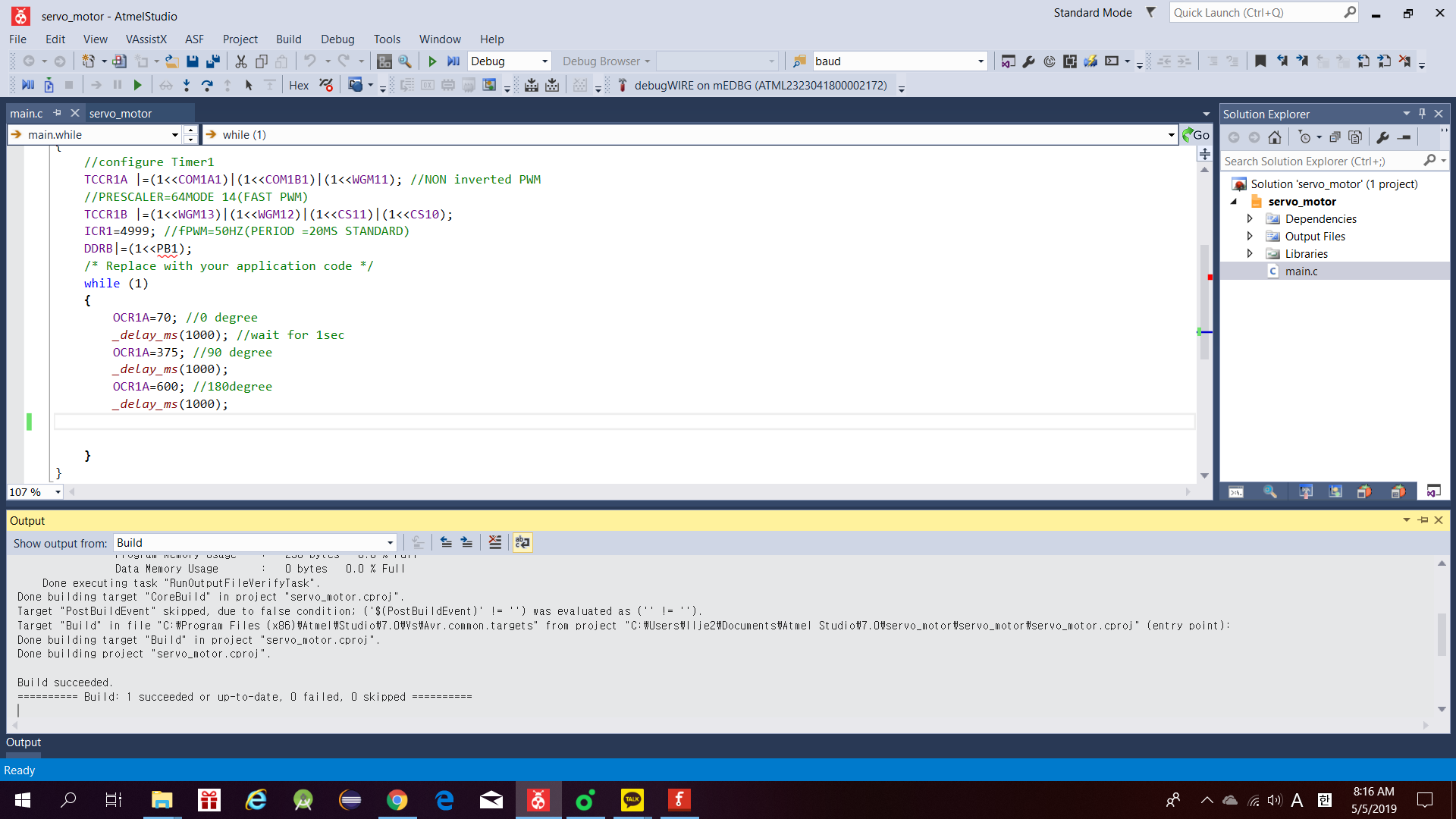
}

}

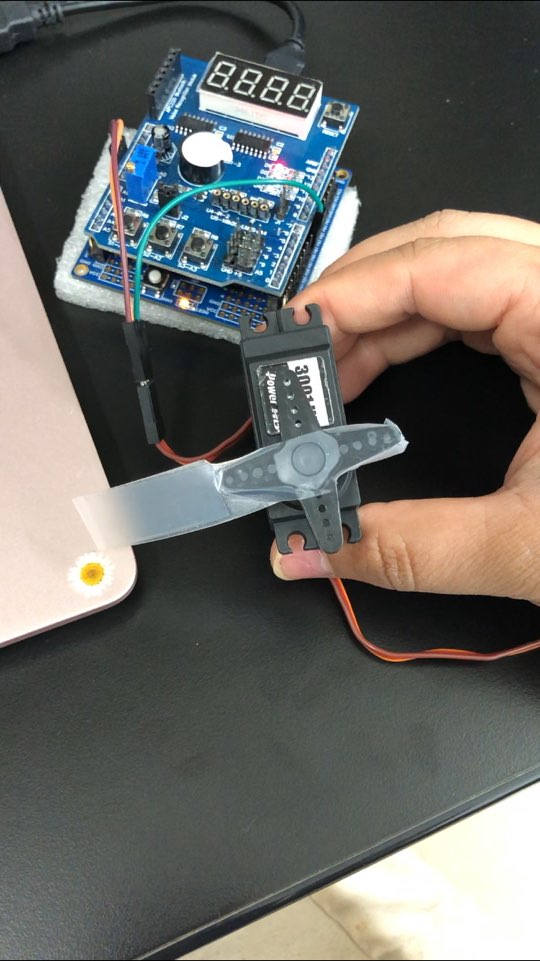
1. **SCHEMATICS**



1. **SCREENSHOTS OF EACH TASK OUTPUT (ATMEL STUDIO OUTPUT)**



1. **SCREENSHOT OF EACH DEMO (BOARD SETUP)**



1. **VIDEO LINKS OF EACH DEMO**

<https://youtu.be/mS3pcnQ4YfU>

1. **GITHUB LINK OF THIS DA**

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**Student Academic Misconduct Policy**

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“This assignment submission is my own, original work”.

YEEUNLEE