/\* COMPRO1 Machine Problem Part 3 \*/

/\* CHUA\_KYLE MATTHEW C. \*/

/\* S19A \*/

/\* \*/

/\* This file contains the main() function for testing the robot control \*/

/\* functions in chua\_mp3\_robot.c \*/

/\* \*/

/\* NOTES: \*/

/\* 1. Change the word "lastname" in the filename to your own last name. \*/

/\* For example, if your last name is SANTOS, then this file should be \*/

/\* named as santos\_mp3\_main.c \*/

/\* 2. Your main task is to fill-up the body of main() function. \*/

/\* 3. You are NOT ALLOWED to add new codes other than the implementation \*/

/\* of the body of the main() function. \*/

/\* 4. You have to compile and link this with the object files corresponding \*/

/\* to your lastname\_mp3\_robot.obj and lastname\_mp2\_math.obj in order to \*/

/\* produce the executable file. \*/

#include <stdio.h>

#include "mp3\_robot.h"

/\* main function for Robby simulation \*/

int main(void)

{

float fRobotX, fRobotY, fDistance;

double dRobotAngle, dTheta;

int code;

InitializeReset(&fRobotX, &fRobotY, &dRobotAngle);

do{

printf("\n1: Initialize/Reset Robot Status\n");

printf("0: Display Status Command Code\n");

printf("8: Forward Translation Command Code\n");

printf("2: Backward Translation Command Code\n");

printf("9: Counterclockwise Rotation Command Code\n");

printf("3: Clockwise Rotation Command Code\n");

printf("4: Quit Simulation Command Code\n");

printf("Input command code: ");

scanf("%d", &code);

switch(code){

case RESET: InitializeReset(&fRobotX, &fRobotY, &dRobotAngle);

break;

case DISPLAY\_STATUS: DisplayStatus(fRobotX, fRobotY, dRobotAngle);

break;

case TRANSLATE\_FORWARD: printf("\nInput Distance to be traveled: ");

scanf("%f", &fDistance);

TranslateForward(fDistance, &fRobotX, &fRobotY, dRobotAngle);

break;

case TRANSLATE\_BACKWARD: printf("\nInput Distance to be traveled: ");

scanf("%f", &fDistance);

TranslateBackward(fDistance, &fRobotX, &fRobotY, dRobotAngle);

break;

case ROTATE\_COUNTERCLOCKWISE: printf("\ninput angle of counterclockwise rotation in degrees: ");

scanf("%lf", &dTheta);

RotateCounterClockwise(dTheta, &dRobotAngle);

break;

case ROTATE\_CLOCKWISE: printf("\ninput angle of clockwise rotation in degrees: ");

scanf("%lf", &dTheta);

RotateClockwise(dTheta, &dRobotAngle);

break;

case QUIT: Quit();

break;

default: printf("\nInvalid code\n");

}

}while(code!=4);

/\*NOTE #4: (VERY IMPORTANT!)

The main() function that you are implementing here is actually for your use;

i.e., so that you can check and verify the correctness of your solution.

For the actual check, I will use my own main() function and link it

with your lastname\_mp3\_robot and lastname\_mp2\_math object files. The resulting

executable file should also be 100% semantically correct for you to earn a

perfect grade.

\*/

return 0;

}