void setup() {

// this program powers the PMB Craft

// use this as a starting point for students to program their own crafts movement

// below we will name the pins on the Arduio will drive the motor relays

int rmr = 45; // rmr stands for right motor reverse, this is the pin we will power when we want the right motor to drive in reverse

int rmf = 47; // rmf stands for right motor forward, this is the pin we will power when we want the right motor to drive forwards

int lmr = 49; // lmr stands for left motor reverse, this is the pin we will power when we want the left motor to drive in reverse

int lmf = 51; // lmf stands for left motor forward, this is the pin we will power when we want the right motor to drive in reverse

// below we will set the pins that drive the motor relays as output only, they will not read any information

pinMode(rmr, OUTPUT); // sets pin 45 as an output

pinMode(rmf, OUTPUT); // sets pin 47 as an output

pinMode(lmr, OUTPUT); // sets pin 49 as an output

pinMode(lmf, OUTPUT); // sets pin 51 as an output

// everthing below this point can be customized as desired by the student, the following is just for demonstration

// below we will delay the program for 5 seconds before moving on to next step

delay(5000);

// below we will turn on both motors to the forward direction

digitalWrite (rmf, HIGH); // right motor move forward

digitalWrite (lmf, HIGH); // left motor move forward

// below we will delay the program for 5 seconds before moving on to next step, this will allow the above action to contine running for 5 seconds

delay(5000);

// below we will turn the motors off

digitalWrite (rmf, LOW); // stop right motor

digitalWrite (lmf, LOW); // stop left motor

// below we will delay the program for 3 seconds before moving on to the next step

delay (3000);

// below we will pivot the craft to the left by turning the right motor forwards and the left motor backwards

digitalWrite (rmf, HIGH); // right motor forwards

digitalWrite (lmr, HIGH); // left motor backwards

// below we will delay the program for 3 seconds before moving on to next step, this will allow the above action to continue for 3 seconds

delay (3000);

// below we will turn the motors off

digitalWrite (rmf, LOW);

digitalWrite (lmr, LOW);

// below we will delay the program for 3 seconds before moving on to the next step

delay(3000);

// below we will turn on both motors to the forward direction

digitalWrite (rmf, HIGH); // right motor move forward

digitalWrite (lmf, HIGH); // left motor move forward

// below we will delay the program for 5 seconds before moving on to next step, this will allow the above action to contine running for 5 seconds

delay(5000);

// below we will turn the motors off

digitalWrite (rmf, LOW); // stop right motor

digitalWrite (lmf, LOW); // stop left motor

}

void loop(){

}