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#include <kipr/botball.h>
#include <Drive.h>

//black=3515
//white=225
int gray = 2000;
int red = 1;
int yellow = 0;

int main()
{
    printf("Hello World\n");

    //turn right
    cmpc(0);
    cmpc(3);
    while(gmpc(0)>-1955)
    {
        mav(0,-500);
    }
    ao();
    msleep(500);

    //drive straight backwards
    drive_straight_neg(-4500,-4500);

    //stop
    ao();
    msleep(500);

    //turn left
    cmpc(r);
    cmpc(l);

    while(gmpc(r) < 1075 && gmpc(l) > -1575)
    {
        mav(r,200);
        mav(l,-200);
    }

    //drive straight backwards
    drive_straight_neg(-3380,-3380);

```

```

//turn left
cmpr(r);
cmpr(l);

while(gmpr(r) < 1075 && gmpr(l) > -1775)
{
    mav(r,200);
    mav(l,-200);
}

//stop
ao();
msleep(3000);

//follow blackline
//clear the position counter
clear_motor_position_counter(0);
while(get_motor_position_counter(0)>-5300)
{
    if(analog(0)<gray)
    {
        mav(3,-200);
        mav(0,-400);
    }
    else
    {
        mav(3,400);
        mav(0,-200);
    }
}

ao();
msleep(500);

//drive over hump
drive(-700,-700,1000);

//follow blackline
clear_motor_position_counter(3); //clear the position counter
clear_motor_position_counter(0);
while(get_motor_position_counter(0)>-6300 && get_motor_position_counter(3)>-6300)
{
    if(analog(0)<gray)

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```

    {
        mav(0,-400);
        mav(3,-200);
    }
    else
    {
        mav(0,-200);
        mav(3,-400);
    }
}

```

```

//turn right
neg_right_ninety();

```

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//camera code
camera_open();
cmpr(0);

```

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while (1)
{
    camera_update();

    if (get_object_count(0) > 0 && get_object_count(1))
    {
        printf("I see yellow %d\n", get_object_count(0));
        printf("I see red %d\n", get_object_count(1));
        break;
    }
    else
    {
        mav(0,-300);
        mav(3,-300);
    }

}

```

```

ao();
msleep(500);
camera_close();

```

if (gmpr(0) < -1200)//this means your at the first building and will need to drive straight and then turn to put the stuff in

```

{
    //drive straight
    drive_straight_neg(-3500,-3500);

    //turn left backwards
    cmpc(r);
    cmpc(l);

    while(gmpc(r) < 1075 && gmpc(l) > -1575)
    {
        mav(r,200);
        mav(l,-200);
    }

    //drive straight
    drive_straight_neg(-2500,-2500);
}

else//you are at the second building and need to go turn back and push the stuff in
{
    //turn left backwards
    cmpc(r);
    cmpc(l);

    while(gmpc(r) < 1075 && gmpc(l) > -1675)
    {
        mav(r,200);
        mav(l,-200);
    }

    //drive straight
    drive_straight_neg(-3500,-3500);
}

return 0;
}

```

