

## TeleOp Program

```
1 package org.firstinspires.ftc.teamcode;
2
3 import com.qualcomm.hardware.bosch.BNO055IMU;
4 import com.qualcomm.robotcore.eventloop.opmode.OpMode;
5 import com.qualcomm.robotcore.eventloop.opmode.TeleOp;
6 import com.qualcomm.robotcore.hardware.CRServo;
7 import com.qualcomm.robotcore.hardware.DcMotor;
8 import com.qualcomm.robotcore.hardware.Servo;
9
10 @TeleOp (name="Right Hand Man", group="drive")
11
12 public class Drive extends OpMode
13 {
14
15     //Wheel Motor
16     DcMotor leftFront;
17     DcMotor rightFront;
18     DcMotor leftBack;
19     DcMotor rightBack;
20
21     //Foundation Servo
22     Servo leftFoundation;
23     Servo rightFoundation;
24
25     //Turret Motor
26     DcMotor turret;
27
28     //Lift Motor
29     DcMotor lift;
30
31     //Arm Motor
32     DcMotor arm;
33
34     //Claw Continuous Rotation Servos
35     CRServo leftClaw;
36     CRServo rightClaw;
37
38     //Gyroscope
39     BNO055IMU imu;
40
41     //Robot Classes
42     DriveTrain dT;
```

## TeleOp Program

```
43     Armstrong a;
44
45     @Override
46     public void init()
47     {
48
49         //Setting variables to the real life components using
the configuration on the phone.
50
51         leftFront = hardwareMap.dcMotor.get("leftFront");
52         rightFront = hardwareMap.dcMotor.get("rightFront");
53         leftBack = hardwareMap.dcMotor.get("leftBack");
54         rightBack = hardwareMap.dcMotor.get("rightBack");
55
56         leftFoundation = hardwareMap.servo.get("leftFoundation
");
57         rightFoundation = hardwareMap.servo.get("
rightFoundation");
58
59         turret = hardwareMap.dcMotor.get("turret");
60
61         lift = hardwareMap.dcMotor.get("lift");
62
63         arm = hardwareMap.dcMotor.get("arm");
64
65         leftClaw = hardwareMap.crservo.get("leftClaw");
66         rightClaw = hardwareMap.crservo.get("rightClaw");
67
68         imu = hardwareMap.get(BNO055IMU.class, "imu");
69
70         //Setting up the classes to run using the variables
above
71         dT = new DriveTrain(gamepad1, gamepad2 ,leftFront,
rightFront, leftBack, rightBack, leftFoundation,
rightFoundation);
72         a = new Armstrong(gamepad1, gamepad2, turret, lift,
arm, leftClaw, rightClaw, imu);
73
74         //Set the motors to stop and stay still instead of
removing all power and coasting
75         leftFront.setZeroPowerBehavior(DcMotor.
ZeroPowerBehavior.BRAKE);
```

## TeleOp Program

```
76         rightFront.setZeroPowerBehavior(DcMotor.  
ZeroPowerBehavior.BRAKE);  
77         leftBack.setZeroPowerBehavior(DcMotor.  
ZeroPowerBehavior.BRAKE);  
78         rightBack.setZeroPowerBehavior(DcMotor.  
ZeroPowerBehavior.BRAKE);  
79  
80         turret.setZeroPowerBehavior(DcMotor.ZeroPowerBehavior  
.BRAKE);  
81         turret.setMode(DcMotor.RunMode.STOP_AND_RESET_ENCODER  
);  
82         turret.setMode(DcMotor.RunMode.RUN_WITHOUT_ENCODER);  
83  
84         lift.setZeroPowerBehavior(DcMotor.ZeroPowerBehavior.  
BRAKE);  
85  
86         arm.setZeroPowerBehavior(DcMotor.ZeroPowerBehavior.  
BRAKE);  
87  
88         //Stops Robot  
89         dT.kill();  
90         a.kill();  
91  
92         //Adds a ready to start to the phone. Some inside  
jokes as well ;)  
93         telemetry.addData("Let's Gooooooooo", "Hehe Yung Link"  
);  
94  
95         //Displays the telemetry  
96         telemetry.update();  
97  
98     }  
99  
100    @Override  
101    public void start()  
102    {  
103  
104        //Stops Robot  
105        dT.kill();  
106        a.kill();  
107  
108    }
```

## TeleOp Program

```
109
110     @Override
111     public void loop()
112     {
113
114         //Implements each teleop methods from the classes
115         dT.teleOpPackage();
116         a.teleOpPackage();
117
118         //Displays telemetry that the methods are using
119         telemetry.addData("Drive Mode: ", dT.getDSpd());
120
121         telemetry.addData("Turret Mode: ", a.getRSpd());
122         telemetry.addData("Turret Encoder:", a.getTurTicks())
123     ;
124
125         telemetry.addData("Arm Speed: ", a.getASpd());
126
127         //Adds telemetry to phone
128         telemetry.update();
129     }
130
131     @Override
132     public void stop()
133     {
134
135         //Stops Robot
136         dT.kill();
137         a.kill();
138
139     }
140
141 }
142
```