

File: C:\Users\grant\Documents\3946X\3946X-2018-19\auton.c

```
// Auton to run in square closest to flag
int autonTime=0;
void nearAuton(int side){
    clearTimer(T1);

    startTask(liftControl);
    liftPID.target = 850;
    motor[slingshot]=127;
    wait1Msec(2300);
    motor[slingshot]=0;

    pDrive(-1100); //Drive back to hit flag

    //turns claw towards ground

    pDrive(700); //drive back
    liftPID.target = 500; //put lift on ground for claw to grab cap
    startTask(clawTask);
    clawPID.target=800;
    pTurn(350 * side); //turn to face cap

    startTask(rotatorTask);
    rotatorPID.target = rotatorLowPos;

    pDrive(750);
    clawPID.target=50; //grasp cap

    rotatorPID.target=rotatorHighPos
    liftPID.target=850; //lift up
    wait1Msec(600);
    drive(127);
    wait1Msec(100);
    clawPID.target=800;
    wait1Msec(100);
    drive(0);
    wait1Msec(100);

    pTurn(-350*side); //turn to face platform
    drive(127);
    wait1Msec(2000);
    drive(-50);
    wait1Msec(50);
    drive(0);

    autonTime=timel[T1];
}
// Auton to run in square farthest to flag
void farAuton(int side){
    //red is 1, blue is -1
    clearTimer(T1);
    rotatorPID.target=rotatorLowPos;
    startTask(clawTask);
    startTask(liftControl)
```

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```
clawPID.target=50;
wait1Msec(500);

liftPID.target=950;
wait1Msec(500);

startTask(rotatorTask);
rotatorPID.target=rotatorLowPos;
liftPID.target = 450; //put lift on ground for claw to grab cap
drive(127);
wait1Msec(1225);
drive(0);
pDrive(-200);
clawPID.target=670;
pTurn(-220*side); //turn to face second cap
pDrive(520);

clawPID.target=50; //grab second cap
rotatorPID.target=rotatorHighPos //flip cap
liftPID.target=1000; //lift up
wait1Msec(600);
liftPID.target=500;
clawPID.target=800; //drop cap

pTurn(520*side); //turn to face platform

drive(127);
wait1msec(1750);
drive(-50);
wait1Msec(50);
drive(0);

autonTime=timel[T1];
}
```

