```
double skills[] = {
    270,                                // ROBOT STARTS FACING 270°

    WRISTSEEK,-1000,                    // DEPLOY FLIPPER
    FLIPSEEK,FLIP_POS1,                 // MAKE SURE FLIPPER STRAIGHT
    INTAKE_ON,                          // START INTAKE
    SCRAPER,SCRAPER_DOWN_POS,           // LOWER SCRAPER
    PAUSE,0.5,                          // PAUSE TO LET SCRAPER DOWN
    DRIVE,127,270,BLACK_B,0.5,          // DRIVE OFF TILE
    DRIVE,110,270,DISTANCE,1.25,2,      // DRIVE TO FLIP CAP
    WRISTSEEK,WRIST_VERTICAL_POS,       // STOP DEPLOY

    FLIPSEEK,FLIP_POS1,
    SCRAPER,SCRAPER_UP_POS,             // RAISE SCRAPER
    TURN,45,2,                          // TURN TO FACE CAP
    WRISTSEEK,WRIST_FORWARD_POS,        // LOWER FLIPPER
    DRIVE,-50,45,DISTANCE,1,2,          // DRIVE TO CAP
    WRISTSEEK,-1,                       // TURN WRIST MOTOR OFF
    FLIPSEEK,FLIP_POS2,                 // FLIP
    PAUSE,0.125,
    DRIVE,90,45,DISTANCE,1.2,2,         // DRIVE AWAY

    FLIPSEEK,FLIP_POS1,

    /////////////////////////////////////////////////////
    // COMMENT THIS BLOCK IF SKILLS TAKING TOO LONG
    // SAVES ~5s AT THE EXPENSE OF 1 POINT
    TURN,10,2,                          // TURN TO FACE NEXT CAP
    WRISTSEEK,WRIST_FORWARD_POS,        // LOWER FORKS
    DRIVE,-50,10,DISTANCE,0.5,2,        // DRIVE TO CAP
    WRISTSEEK,WRIST_VERTICAL_POS,       // RAISE FORKS
    DRIVE,60,10,DISTANCE,0.1,0.5,       // DRIVE AWAY FROM WALL
    DRIVE,90,10,DISTANCE,0.4,1,         // DRIVE AWAY
    // STOP COMMENTING HERE
    /////////////////////////////////////////////////////

    START_COAST,                        // LET FLYWHEEL SPIN UP TO
     SPEED

    TURN,90,1.5,                        // TURN TO FACE START TILE
    FLIPSEEK,FLIP_POS2,                 // FLIP
    WRISTSEEK,-1,
    DRIVE,127,90,WHITE_R,2,             // DRIVE TO START TILE
    DRIVE,-80,90,0.05,                  // BREAK TO STOP
    TURN,0,2,                           // TURN TO FACE FLAGS
    WRISTSEEK,WRIST_VERTICAL_POS,
    FLIPSEEK,FLIP_POS1,


    DRIVE,127,1,BLACK_L,2,              // DRIVE OFF START TILE


    DRIVE,127,1,0.1,                    // DRIVE TO ENSURE FULLY ON
     TILE
    DRIVE,127,1,WHITE_L,2,              // DRIVE TO NEXT TILE
    DRIVE,127,2,DISTANCE,0.8,1,         // LINE UP FOR SHOT

    PAUSE,0.1,                          // STOP BOUNCE

    FIRE_AIM,TOP,                       // SHOOT TOP FLAG
    PAUSE,FIRED,FIRE_TRY_TIME,          // WAIT TILL SHOT
    PAUSE,0.1,                          // SHORT PAUSE
    STOP_FIRE,                          // STOP FLYWHEEL

    DRIVE,127,CDIR,DISTANCE,             // CONTINUED ON NEXT LINE
    MIDDLE_FLAG_DIST-0.05,2,            // DRIVE TO MIDDLE FLAG DIST
    FIRE_AIM,TOP,                       // SHOOT MIDDLE FLAG
    PAUSE,FIRED,FIRE_TRY_TIME,          // WAIT TILL SHOT
    PAUSE,0.1,                          // SHORT PAUSE
    STOP_FIRE,                          // STOP FLYWHEEL


    INTAKE_OFF,                         // TURN INTAKE OFF
    DRIVE,127,0,0.5,                    // DRIVE TO TOGGLE BOTTOM FLAG
    DRIVE,-127,0,0.5,                   // DRIVE AWAY FROM FLAG
    INTAKE_ON,                          // TURN INTAKE BACK ON
    SCRAPER,SCRAPER_UP_POS,             // RAISE SCRAPER AGAIN
    FLIPSEEK,-1,                        // STOP TANGLE WITH NET

    TURN,0,1,                           // TURN TO LINE UP
    DRIVE,-127,0,WHITE_L,2,             // DRIVE TO RED TILE
    DRIVE,90,0,0.05,                    // BREAK TO STOP
    DRIVE,-127,0,DISTANCE,0.5,1,        // DRIVE TO MIDDLE OF IT
    TURN,90,0,                          // TURN TO FACE WALL

    FLIPSEEK,FLIP_POS1,                 // PUT FLIPPER BACK
    DRIVE,100,90,0.5,                   // DRIVE TO WALL
    SET_GYRO,90,                        // SET GYRO

    WRISTSEEK,WRIST_FORWARD_POS,        // LOWER FLIPPER
    DRIVE,-100,90,DISTANCE,0.1,1,       // DRIVE AWAY FROM WALL
    TURN,135,2,                         // TURN TO FACE NEXT CAP

    DRIVE,-90,135,DISTANCE,1.7,3,       // DRIVE TO NEXT CAP
    WRISTSEEK,WRIST_VERTICAL_POS,       // LIFT CAP
    PAUSE,0.25,                         // PAUSE TO LET IT LIFT
    FLIP,                               // FLIP THE CAP

    TURN,180,2,                         // TURN TO FACE PLATFORM
    WRISTSEEK,-1,                       // DROP CAP
    SCRAPER,SCRAPER_UP_POS,             // ENSURE SCRAPER IS UP
    DRIVE,127,180,DISTANCE,1.3,2,       // DRIVE TO PLATFORM
    SCRAPER,SCRAPER_DOWN_POS,           // LOWER SCRAPER
```

```
WRISTSEEK,WRIST_VERTICAL_POS,        // LIFT FLIPPER
FLIPSEEK,FLIP_POS1,                  // REVERT FLIPPER
PAUSE,0.25,                          // PAUSE TO LET SCRAPER DROP
DRIVE,-127,180,DISTANCE,0.25,1,      // DRIVE AWAY FROM PLATFORM
PAUSE,0.25,                          // LET BALL ROLL IN

SCRAPER,SCRAPER_DOWN_POS,            // MOVE SCRAPER TO CAP FLIP
 POSITION
TURN,270,1,                          // TURN TO FACE NEXT CAP
DRIVE,90,270,DISTANCE,1.1,1,         // DRIVE TO FLIP NEXT CAP
PAUSE,0.25,                          // PAUSE TO LET BALL INTAKE
DRIVE,-127,270,DISTANCE,0.25,1,      // DRIVE AWAY FROM CAP
SCRAPER,SCRAPER_UP_POS,              // LIFT SCRAPER TO SAFETY

TURN,315,2,                          // TURN TO FACE 315
DRIVE,127,315,DISTANCE,0.35,2,       // DRIVE TO LINE UP

TURN,350,0.5,                        // TURN TO FACE 350
FIRE_AIM,TOP,                        // SHOOT TOP FLAG
PAUSE,FIRED,FIRE_TRY_TIME,           // WAIT TILL SHOT
PAUSE,0.1,                           // SHORT PAUSE
STOP_FIRE,                           // STOP FLYWHEEL

DRIVE,127,CDIR,DISTANCE,             // CONTINUED ON NEXT LINE
MIDDLE_FLAG_DIST,2,                  // DRIVE TO MIDDLE FLAG DIST
FIRE,TOP,                            // SHOOT MIDDLE FLAG
PAUSE,FIRED,FIRE_TRY_TIME,           // WAIT TILL SHOT
PAUSE,0.1,                           // SHORT PAUSE
STOP_FIRE,                           // STOP FLYWHEEL

INTAKE_OFF,                          // TURN INTAKE OFF
DRIVE,127,0,0.5,                     // DRIVE TO TOGGLE BOTTOM FLAG
DRIVE,-127,0,0.5,                    // DRIVE AWAY FROM FLAG
INTAKE_ON,                           // TURN INTAKE BACK ON
SCRAPER,SCRAPER_UP_POS,              // RAISE SCRAPER AGAIN

TURN,0,0.5,                          // TURN TO LINE UP
DRIVE,-127,0,SONAR,1.25,2,           // LINE UP FOR NEXT CAP

FLIPSEEK,FLIP_POS1,                  // PUT FLIPPER CORRECT WAY UP
TURN,90,0,                           // TURN TO FACE NEXT CAP
WRISTSEEK,WRIST_FORWARD_POS,         // LOWER FLIPPER
DRIVE,-127,90,WHITE_E,1,             // DRIVE ACOSS CENTER WHITE
 LINE
DRIVE,-90,90,DISTANCE,2.5,2,         // DRIVE TO GET NEXT CAP
 (SLOWLY)

WRISTSEEK,WRIST_VERTICAL_POS,        // LIFT CAP
DRIVE,127,90,DISTANCE,0.1,1,         // DRIVE AWAY FROM WALL
FLIP,                                // FLIP CAP
WRISTSEEK,-1,                        // DROP CAP

TURN,155,2,                          // TURN TO FACE PLATFORM
SCRAPER,SCRAPER_DOWN_POS/3,          // LOWER SCRAPER HALF WAY
DRIVE,127,155,DISTANCE,1.4,2,        // DRIVE TO PLATFORM

SCRAPER,SCRAPER_DOWN_POS,            // LOWER SCRAPER
WRISTSEEK,WRIST_VERTICAL_POS,        // LIFT FLIPPER
FLIPSEEK,FLIP_POS1,                  // REVERT FLIPPER
PAUSE,0.25,                          // PAUSE TO LET SCRAPER DROP
DRIVE,-127,155,DISTANCE,0.5,1,       // DRIVE AWAY FROM PLATFORM
PAUSE,0.25,                          // PAUSE TO LET BALL ROLL IN

TURN,90,2,                           // TURN TO FACE NEXT CAP
SCRAPER,SCRAPER_DOWN_POS,            // MOVE SCRAPER TO CAP FLIP
 POSITION
DRIVE,127,90,DISTANCE,1.25,2,        // DRIVE TO FLIP CAP
SCRAPER,SCRAPER_UP_POS,              // LIFT TO FLIP CAP FAR
PAUSE,0.25,                          // PAUSE TO LET BALL INTAKE
DRIVE,-127,90,WHITE_E,2,             // DRIVE TO LINE UP FOR FLAGS
DRIVE,90,90,0.05,                    // DRIVE TO BREAK
PAUSE,0.5,                           // PAUSE TO STOP TIPPING

TURN,1,2,
DRIVE,90,0,BLACK_B,2,                // DRIVE TO EDGE OF TILE
DRIVE,-90,0,WHITE_E,2,               // DRIVE ONTO TILE
DRIVE,-80,0,DISTANCE,0.1,1,          // DRIVE TO BREAK

FIRE_AIM,TOP,                        // SHOOT TOP FLAG
PAUSE,FIRED,FIRE_TRY_TIME,           // WAIT TILL SHOT
PAUSE,0.1,                           // SHORT PAUSE
STOP_FIRE,                           // STOP FLYWHEEL

DRIVE,127,CDIR,DISTANCE,             // CONTINUED ON NEXT LINE
MIDDLE_FLAG_DIST,2,                  // DRIVE TO MIDDLE FLAG DIST
IF,GOTBALL,                          // IF WE'VE GOT A BALL
    FIRE,TOP,                        // SHOOT MIDDLE FLAG
    PAUSE,FIRED,FIRE_TRY_TIME,       // WAIT TILL SHOT
    PAUSE,0.1,                       // SHORT PAUSE
ENDIF,
STOP_FIRE,                           // STOP FLYWHEEL

TURN,5,0.25,                         // TURN A LITTLE BIT
INTAKE_OFF,                          // TURN INTAKE OFF
DRIVE,127,0,0.5,                     // DRIVE TO TOGGLE BOTTOM FLAG
DRIVE,-127,0,0.5,                    // DRIVE AWAY FROM FLAG
INTAKE_ON,                           // TURN INTAKE BACK ON
SCRAPER,SCRAPER_UP_POS,              // RAISE SCRAPER AGAIN

STOP_COAST,                          // TURN FLYWHEEL OFF NOW

INTAKE_FLIP,                         // TURN INTAKE BACKWARDS TO
 LOSE ANY BALLS
```

```
    FLIPSEEK,-1,                          // DON'T LET THE FORKS GET
     CAUGHT

    TURN,20,0.8,                          // TURN TO LINE UP
    DRIVE,-127,20,WHITE_R,2,              // DRIVE UNTIL ON THE TILE
    DRIVE,-127,20,0.1,                    // DRIVE TO BE FULLY ON TILE
    TURN,0,0.5,                           // TURN TO LINE UP
    DRIVE,-127,0,BLACK_R,2,               // DRIVE UNTIL OFF THE TILE
    DRIVE,-127,0,DISTANCE,0.4,2,          // DRIVE TO LINE UP

    TURN,80,0.8,                          // TURN TO FACE PLATFORM
    INTAKE_ON,                            // ENSURE INTAKE IS RUNNING
    WRISTSEEK,WRIST_FORWARD_POS,          // PUT FLIPPER DOWN
    FLIPSEEK,FLIP_POS1,                   // MAKE SURE FLIPPER STRAIGHT
    DRIVE,127,80,DISTANCE,0.75,1,         // DRIVE TO PLATFORM
    DRIVE,127,80,WHITE_B,1,               // DRIVE UP FIRST PLATFORM
    DRIVE,127,80,DISTANCE,2,4,            // DRIVE UP PLATFORM 2.75

    END,                                  // END OF ROUTINE
};
```