```
void loop() {
digitalWrite(green_status, HIGH);
int green_state=1;
digitalWrite(yellow_status, LOW);
int yellow_state=0;
digitalWrite(red_status, LOW);
int red_state=0
bool flagA=True;
bool flagB=True;
bool breakFlag=False;



while(digitalRead(button_1)!=LOW && flagA)
{
        if(reset==1 and red_state==1)
        {
                flagA=True;
                flagB=True;
                red_state=0;
                digitalWrite(red_status, LOW);
        }
        pot_1_state=analogRead(pot_1);
        load_cell_state=analogRead(load_cell);
        float target_weight= pot_1_state* ____ ;
        if(pot_1_state>0 && green_state==1 && load_cell_state>19 &&
        digitalRead(button_1)==LOW)
        {
                flagB=False; //turns off other while loop
                green_state=0;
                digitalWrite(green_status, LOW);
                yellow_state=1;
                digitalWrite(yellow_status, HIGH);
                for(i=0; i<10000; i++) //for loop for dispensing period
                {
                        if(i==0)        //open valve to dispense item
                        {
                                digitalWrite(valve_1, HIGH);
                        }
                        if(load_cell==1.2*target_weight) //overflow detection
```

```
                {
                        digitalWrite(valve_1,LOW);
                        red_state=1;
                        digitalWrite(red_status, HIGH);
                        yellow_state=0;
                        digitalWrite(yellow_status, LOW);
                        flagA=False;
                }
                elif(load_cell==0.95*target_weight) //shut off valve
                {
                        digitalWrite(valve_1, LOW);
                        green_state=1;
                        digitalWrite(green_status, HIGH);
                        yellow_state=0;
                        digitalWrite(yellow_status, LOW);
                        flagB=True;
                }

        }
    }
}

while(digitalRead(button_2)!=LOW && flagB)
{
    if(reset==1 and red_state==1)
    {
        flagA=True;
        flagB=True;
        red_state=0;
        digitalWrite(red_status, LOW);
    }
    load_cell_state=analogRead(load_cell);
    pot_2_state=analogRead(pot_2);
    float target_weight= pot_2_state* ____ ;
    if(pot_2_state >0 && green_state==1 && load_cell>19 &&
    digitalRead(button_2)==LOW):
    {
        flagA=False;
        green_state=0;
        digitalWrite(green_status, LOW);
```

```
                yellow_state=1;
                digitalWrite(yellow_status, HIGH);
                for(i=0; i<10000; i++) //for loop for dispensing period
                {
                        if(i==0) //open valve to dispense item
                        {
                                digitalWrite(valve_2, HIGH);
                        }
                        if(load_cell==1.2*target_weight) //overflow detection
                        {
                                digitalWrite(valve_2, LOW);
                                red_state=1;
                                digitalWrite(red_status, HIGH);
                                yellow_state=0;
                                digitalWrite(yellow_status, LOW);
                                flagB=False;
                        }
                        elif(load_cell_state==0.95*target_weight) //shut off valve
                        {
                                digitalWrite(valve_2, LOW);
                                green_state=1;
                                digitalWrite(green_status, HIGH);
                                yellow_state=0;
                                digitalWrite(yellow_status, LOW);
                                flagB=True;
                        }

                }
        }
}

}
```