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1  /**
2   IMA 7 Pulley Action - Mission Possible MK2
3   Ward Melville HS Science Olympiad - Team A - 2017-2018
4   imaSevenTiny.ino
5   Purpose: Turns on a motor when the input is recieved. Turns it off when a switch is hit.
6
7   @author David Cutting
8   @version 1.0 1/22/2018
9  */
10
11 // Definitions for microcontroller pin numbers
12 const int MOT_PIN_A = 0;
13 const int MOT_PIN_B = 1;
14 const int SWITCH_PIN = 2;
15 const int IN_PIN = 3;
16
17 void setup() {
18   // Set the microcontroller pins as either inputs or outputs
19   pinMode(SWITCH_PIN, INPUT);
20   pinMode(IN_PIN, INPUT);
21   pinMode(MOT_PIN_A, OUTPUT);
22   pinMode(MOT_PIN_B, OUTPUT);
23
24   // Lock the motor in place (connect the leads, essentially)
25   digitalWrite(MOT_PIN_A, LOW);
26   digitalWrite(MOT_PIN_B, LOW);
27 }
28
29 void loop() {
30   if(digitalRead(SWITCH_PIN)) { // If the limit switch is pressed...
31     // Turn the motor off (coast)
32     digitalWrite(MOT_PIN_A, LOW);
33     digitalWrite(MOT_PIN_B, LOW);
34   }
35   else if(digitalRead(IN_PIN)) {
36     digitalWrite(MOT_PIN_A, LOW);
37     digitalWrite(MOT_PIN_B, HIGH);
38   }
39 }
40
```