Challenge #4—Olympic Canoe Conveyor System

An inclined conveyor system on the Olympic canoe downhill circuit is operated by a microcontroller.

The control program will activate in the following sequence:

• When the system is switched on the conveyor belt starts and a barrier opening motor runs for 3 seconds before stopping;

• When a canoeist is sensed on the conveyor the barrier closing motor runs for 3 seconds before stopping;

• After an additional delay of 15 seconds the conveyor belt stops;

• Sequence repeats until switched off.

Pin Out Diagram

Input connection	Pin	Output connection
	7	
	6	Barrier Closing motor
	5	Barrier Open motor
	4	Conveyor belt signal
	3	
	2	
Canoe sensor (=1 when canoe is present)	1	
Main ON/OFF switch	0	

Stick solution here:

Marks Gained:

Student comments:

Teacher comments: