

# CWSF 2012 - Charlottetown, Prince Edward Island



## Colin Hooper

### Automated Personal Trainer

**Challenge:** Innovation

**Category:** Senior

**Region:** Cape Breton

**City:** Howie Centre , NS

**School:** Riverview High School

**Abstract:** The participant developed an automated puck shooter for use as a hockey goaltender training aid. The project included design, prototype construction, performance testing and design evolution phases which produced a device capable of storing and shooting 50 pucks at speeds ranging from 38 to 64 km/h with manual, radio or computer controlled shot frequency adjustment capability ranging from 0 to 60 shots per minute.

### Biography

I am a grade 11 student in the Advanced Credit Program at Riverview High School in Coxheath NS, where I play on the Jr. Varsity soccer team. Outside school, in the winter months, I am a goalie for the Cape Breton County Islanders Midget AAA hockey team and have played as an affiliate player for the Cape Breton Tradesmen Major Midget hockey team. My summers have been spent playing soccer as both a keeper for the Riverview Tier II soccer club, with whom I won a provincial championship in my second season at the under 14 level, and more recently as a fullback with the Cape Breton Selects Tier I club. When not playing competitive sports I volunteer as a goalie coach for my younger brother's hockey team. My sports involvement lead to this years science project to develop an automated goalie training device. I have been a medalist in our Regional Science Fair since grade 8 and this will be my second time attending the CWSF. On my first trip to the CWSF (Peterborough 2010) I was awarded a Bronze Medal in the Mathematical and Physical Sciences category for my project on boat hull analysis.

### Awards

### Value

Excellence Award - Senior - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$300
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$2 300</b>