

The Lightning System

Making Hockey Better

What is Offsides In Hockey

A player is offsides if both of their skates completely cross the blue line dividing their offensive zone from the neutral zone before the puck completely crosses the same line.

What is Artificial Intelligence

Intelligence demonstrated by machines, able to solve simple tasks.

What is Machine learning

An application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed

What the system will fix

Our product will be able to...

- Resolve conflicts between coaches, refs, and players.
- Create more objective decision making
- Increase the overall satisfaction/experience for coaches, players, refs, and fans.

Problem

The offsides ruling in hockey has historically been controversial. The missed calling of offsides causes a stop-age of play which creates tension between players, refs, and coaches; slows the pace of the game; and lessen the viewing experience for all parties.

From the Players

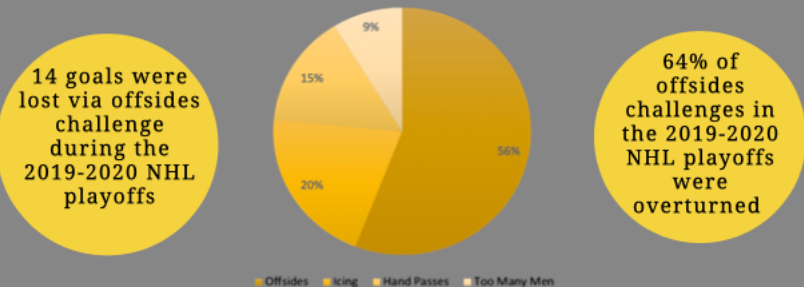
56% of junior hockey players said offsides is the most missed call during a hockey game

37% of junior hockey players said refs often/very often miss an offsides call during a game

70% of junior hockey players said that refs fail to call offsides right away, which then causes them to call a delayed offsides

100% success rate for 5 teams in challenging offsides during the 2019-2020 NHL playoffs

Most Commonly Missed Call



Solution

- A series of 6 cameras placed above the ice (2 on each side, one behind each net)
- Will have the Sony IMX501 vision sensors built into them
- Cameras watch the game and track movement across the ice
- This chip allows the camera to detect specific moving objects and then track their individual movement.
- The AI computer program inside the heart of our system scans each frame that is captured to determine if a player is in the offensive zone before the puck.
- If offsides is detected the arena horn is sounded and play stops.

Features



State of the art



Easy to install



Efficient



Accurate



One of a kind

Marketing Strategy

- The Lightning System team will be persistent in trying to get in front of the Commissioner and the Director of Operations of the USHL.
- Our product will set an example and bring awareness, prompting other hockey leagues and stadiums to use our product.
- Once we implement our product into one of the stadiums, other leagues and teams will see how our system increases the flow of the game and overall better gameplay. This allows our system to flourish and make a name for itself.

Target Market

- Western Division of the United States Hockey League
- More specifically the Commissioner of the USHL, Tom Garrity, and the Director of Operations, Evan Rand
- 8 teams located mainly in the Midwest
- 280 male players ages 16-21
- Not price sensitive



Behavior: The way the Commissioner and Director look to better the organization is through products they use for their players. They will purchase and install anything that will increase the players overall game play. The USHL generates enough income that would allow them to invest in The Lightning System.

Psychographics: The Commissioner and Director will implement almost anything to make their league the best it can be and make their league better than others. With a product like ours, not only are they going to be the best junior hockey league there is, they are going to lead by example and prove why our product will make their league better.

Why the USHL?

- 1 The USHL doesn't have professional referees
- 2 Coaches challenge is not allowed in overturning incorrect calls in the USHL, whereas it is a very prevalent method for the NHL
- 3 Video cameras in USHL rinks are low quality causing for issues with reviewing plays
- 4 Only 8 rinks would require the system
- 5 Easily expandable to the Eastern Conference of the USHL and higher levels of hockey once more data is collected

Competition

There is no real competition for The Lightning System, but there is technology like it. Our only real competition is the referees. We aim to make their job easier in the present, and no longer needed in the future.