Colton Doherty

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ADVISOR/MENTOR: Dr. Jenna Gorlewicz

SPONSOR/GRANT: St. Louis Lighthouse for the Blind

PROGRAM START: Fall 2021

BIOGRAPHY

Colton Doherty received his B.S. in Mechanical Engineering from Purdue University in 2021. He is now pursing his master's in engineering here at SLU and is a graduate researcher at the CHOME Lab. Colton has worked in the automotive and aerospace/defense industries. Colton also has worked on projects involving renewable energy, consumer products, medical devices, and toy design. Colton loves the outdoors and going on hikes, climbs, and trips. He also loves playing and watching sports; his favorites include baseball and soccer. He grew up in the St. Louis area and is an avid St. Louis sports fan.

RESEARCH

Colton is a researcher at the CHROME Lab and is currently working on the research and design of a next generation hockey puck for the blind. Blind ice hockey is very similar to its sighted counterpart, but with the major difference that all players are legally blind. Blind ice hockey uses a modified puck made of hollow steel with ball bearings inside. The puck rattles as it moves, which allows players to track the location of the puck using sound. Although the current solution is viable, it has major limitations like its reliance on motion to create sound and its poor durability. Colton's research involves designing prototypes that use new manufacturing methods like 3D printing to create a more durable solution that is easy to manufacture. The research also involves using sound emitting electronics, microcontrollers, and circuitry to create a digitally produced sound. The research hopes to aid in the advancement of blind ice hockey by increasing the sport's accessibility and gameplay. Colton's other research interest include medical devices, robotic surgeries, and swarm robotics.