

My Robot

A rare medical condition often forces Grady Loper to stay home from school. Fortunately, a robot can take his place.

It's a typical school day at Lake Country School in Hartland, Wisconsin, for Grady Loper. In the morning, the fourth-grader discusses last night's reading homework with his classmates. He then solves math problems on a work sheet. In the afternoon, he attends Spanish class down the hall. But there's actually something remarkable about this day. Grady is doing all of this without leaving home.

Grady suffers from a severe medical condition that forces him to miss school for several days in a row. On days when he can't make it to class, a robot takes his place.

Grady controls the robot from home, using the arrow keys on his laptop computer. An iPad hooked up to the robot **streams** two-way video. That lets Grady see what's going on in class, and it also lets his teachers and classmates see him. The robot enables Grady to keep up with his schoolwork and his friends when he can't physically be in the classroom.

"It kind of takes stress off my shoulders," says Grady. "I don't have to worry as much about getting sick and falling behind in school."

Overcoming Obstacles

Grady was born with a rare disorder that has left him with a weakened immune system. That means his body can't fight off diseases and infections the way most people's can. He is more **susceptible** to illness, and his body takes much longer to recover. Being around someone who has even a slight cold can be bad news for Grady.

"In the classroom, if one kid is sick, if there's a sniffle, a sneeze, a cough, Grady will get sick within a couple days," says Grady's mother, Tami.

She estimates that Grady missed about 45 days of school each year from kindergarten through third

Words to Know

streams (streamz) *verb*. transmits something (usually a video) over the internet

susceptible (suh-SEP-tih-buhl) *adjective*. very likely to be affected or harmed by something



Goes to School



Grady Loper positions his robot at his desk (below) while he participates in class from home (right).



calls his teacher and she powers it up. The robot has two heights. It's shorter when it "sits" at Grady's desk. Grady can make the robot taller to show that he's raising his hand.

Grady and his teachers send his homework and quizzes back and forth through a computer program called Google Docs.

A Normal Life

The robot has even helped Grady get healthier. This year, he has stayed home from school about 30 days. But only five of those days were because he was sick. He used the robot on the rest of the days to avoid being around classmates who were getting over illnesses.

For Grady, one of the best things about the robot is that it allows him to socialize with his friends, no matter where he is. And his classmates view the robot just as they would an actual kid.

"They just think it's me," says Grady. "They treat it like it's a normal person."

—by Joe Bubar

Robot to the Rescue

For Grady, learning to control the robot took some getting used to. Sometimes, he would accidentally bump it into desks, or it would topple over.

"It was a little difficult at first, maneuvering it around the classroom," says Grady. "Once I got the hang of it, it was fine."

Grady wheels the robot through the halls to his different classes, steering it around other students. Even when it's not in use, the robot "lives" in Grady's classroom. On days when he stays home, Grady

Virtual Vacations

Technology isn't only helping sick kids avoid missing school. It's also giving kids in hospitals an escape without having to leave their beds. Many hospitals around the U.S. are using virtual reality (VR). Patients wear a headset or look through a viewfinder with a smartphone inside it. The devices give them 3-D views of places like the Grand

Canyon, the Great Wall of China, and even the moon!

Nationwide Children's Hospital, in Columbus, Ohio, began using VR last spring. The devices help distract patients from the pain of their illnesses and treatments, such as shots. It's been a hit so far.

"There's been a very positive response from the patients," says Dr. Amy Dunn.

Kids at Maimonides Medical Center in New York City take a virtual-reality break.

