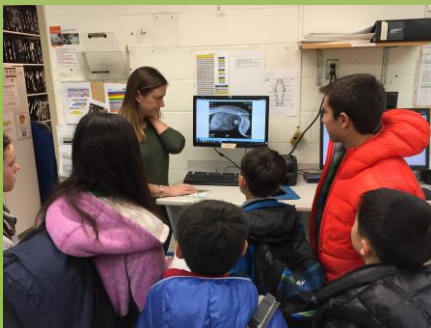


SHARING

- We presented our project to Casey Panning and she was impressed by our prototype. She suggested we make our collar more adaptable for cats.



- We met with Claudia Vecchio and she pointed out that strangers might be apprehensive about approaching an unknown animal. She suggested we make our collar announce that the dog is friendly.



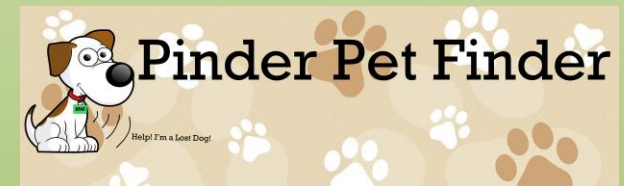
- We showed our prototype to Jack Feder and he helped us troubleshoot the electronics of our project.



- We demonstrated our solution and skit to 210 middle school students at our school, Bayview Glen.

IMPLEMENTATION

- Next steps for our research project develop partnerships with manufacturers to design and produce our solution
- Lucas Chang, our contact from Y2, will help us form a start-up company



An innovative way to reunite lost pets with their families

**Ctrl-Z Bayview Glen
FLL Team #5831**

Visit our website at:

http://flctrlz.github.io/animal_allies/



FIRST LEGO LEAGUE

PROBLEM IDENTIFICATION

- Our FLL Animal Allies problem: **Every year, 1 million pets are lost in Canada and only 22% are reunited with their families. This causes significant grief to both pets and their owners.**

SOURCES OF INFORMATION

- We have used experts, articles, websites and conducted a survey

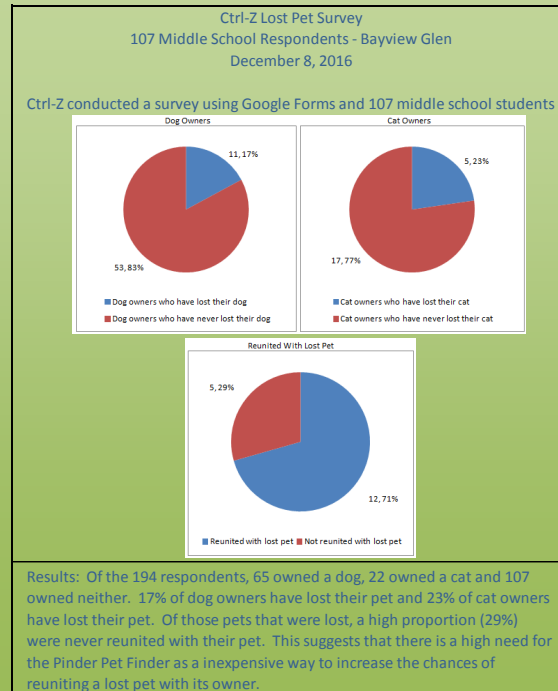
EXPERTS

- Claudia Vecchio**, Founder of ORA (Organization for the Rescue of Animals)
- Casey Panning**, Community Outreach & Education Coordinator at the Toronto Humane Society.
- Jack Feder**, Electrical Engineer and Inventor of Electronic Medical Devices.

SOME OF OUR ARTICLES WE REFERRED TO

- Canadian Federation of Humane Societies, "Animal Shelter Statistics - 2013" Dec 16, 2014
- Intervet International B.V., "Pet Microchips: High Tech Protection Helps Find Lost Pets", 2010
- Johnson, Jill, "Dogs, Cats, and Their People: The Place of the Family Pet and Attitudes About Pet Keeping", A thesis presented to the University of Waterloo in fulfilment of the thesis requirement for the degree of Master of Arts in Public Issues Anthropology, 2009
- Missing Pet Partnership, "Recovery Tips – Lost Dog Behavior", <http://www.missingpetpartnership.org/recovery-tips/lost-dog-behavior/> Accessed Nov 15, 2016
- Walsh, Froma. "Human-Animal Bonds II: The Role of Pets in Family Systems and Family Therapy", Family Process, Vol. 48, No. 4, 2009 481-500
- Weiss, Emily., Slater, Margaret., Lord, Linda. "Frequency of Lost Dogs and Cats in the United States and the Methods Used to Locate Them", Animals, 2012, 2, 301-315; doi:10.3390/ani2020301, Jun 13, 2012

SURVEY CONDUCTED



EXISTING SOLUTIONS

- Many existing solution use cell phone towers to locate the pet. This requires a monthly subscription which can be very expensive.
- Other solutions notify nearby people that the animal is lost but require them to have an app on their mobile device. Not everyone would have this app and would, therefore, limit the effectiveness of the solution.
- We also conducted a patent search.



- Pip is a small GPS and activity tracker for dogs and cats (photo above).

INNOVATIVE SOLUTION

TEAM SOLUTION



- Our innovative solution is a pet collar that will serve to reunite lost pets with their families.
- Our collar connects with the owner's mobile device using Bluetooth. The range of the Bluetooth connection is around 100 meters. If a pet walks away and exceeds this range, the connection is lost and the collar will go into SOS mode.
- A laser projects a message onto the ground informing passersby that the pet is lost.
- An audio message is broadcast by the collar to alert people nearby.
- Contact information is displayed on the collar's LED screen.
- As an optional feature of the product, there is a digital thermometer monitoring the ambient temperature around the pet. If it exceeds a set temperature, the collar would alarm to notify passersby that the pet needs to be rescued.

INNOVATION

- Does not require a monthly subscription or cell phone coverage to operate.
- An app does not need to be downloaded on the phone in order to notify bystanders.
- Does not need a reader to decipher the information on the collar.