EDD Project Proposal

The lack of security in widespread ground areas is problematic, and even dangerous in many instances. For example BBC reported that there were 96 stowaways who boarded the plane from the airfield, of which only 26% survived the flight. This danger with stowaways can be largely attributed to the lack of security in the wide spread areas of an airport airfield.

Thomas, Maggie, & Scott

PROJECT LEAD THE WAY
PLTW

Why do we need ground security?
the potential consequences of insecure locations

The dangers of insecure grounds

Outdoor Security

Let us not look back in **anger** or forward in **fear**, but around in **awareness**.

~ James Thurber

Theft

People can take your stuff when you are not aware.

Tresspassing

Without security, people can get on your property.

Damage

Often times damage can happen without being able to hold anyone accountable.

Our Focus

Outdoor Security

Families need to have peace of mind and protections in all aspects of their home life.

The Commonwealth need protection in their day to day life, keeping them safer, and the world better.

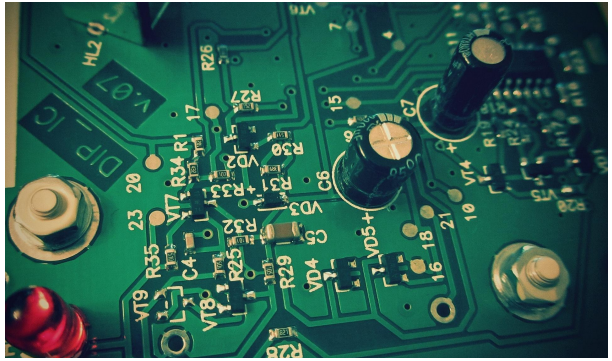
Businesses need protection, not only for their employees, but also to protect intellectual, and physical property.

We will go into what is needed to solve this problem.

What is involved?

Research Design

Outdoor Security



We are going to be designing a device that will be installed in the ground and monitor ground movement. We will need to design a circuit board (with a microprocessor, sensors, and modules), it's casing, and firmware for it to run. We plan to install a cluster of these monitors in a yard covering a designated area, and then connect wirelessly and securely to a gateway. This gateway will connect the End-Nodes to the internet.

The Costs

- Custom PCB Manufacturing
- Embedded Components and Sensors
- Casing Materials or Existent Casing
- Existent Gateway Solution

Development Steps

PCB Schematics

We need to design a functional sensor board that will detect Infrared Targets and report to a gateway through RF.

Building the Device

Soldering on the parts to the circuit board, building the casing and installing it. Also building a development device.

Developing the Firmware

Working on the Development Board, we need to develop the firmware to interface the sensors and report finding to the user

Developing the User Interface

We need to develop a way for clients to not only see the data that our sensors will collect but also get notifications when they need it.

What We Do

Outdoor Security

Inform

If there is an intruder on your property, you will be informed instantly.

Act

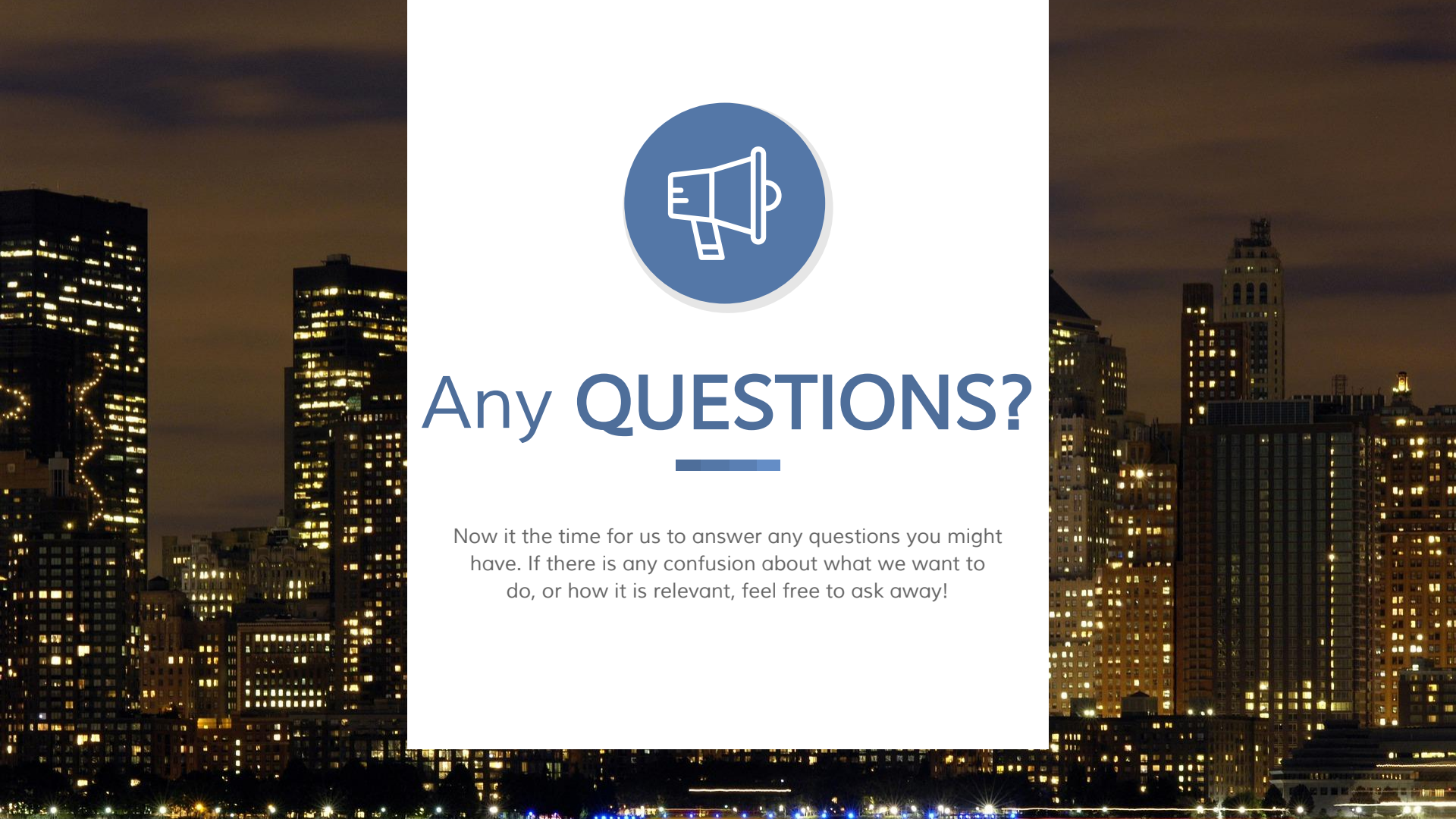
Based on what you need us to do, we can quickly act when we detect an intruder.

Target

Our embedded software will target certain people or animals dependent on your use case.

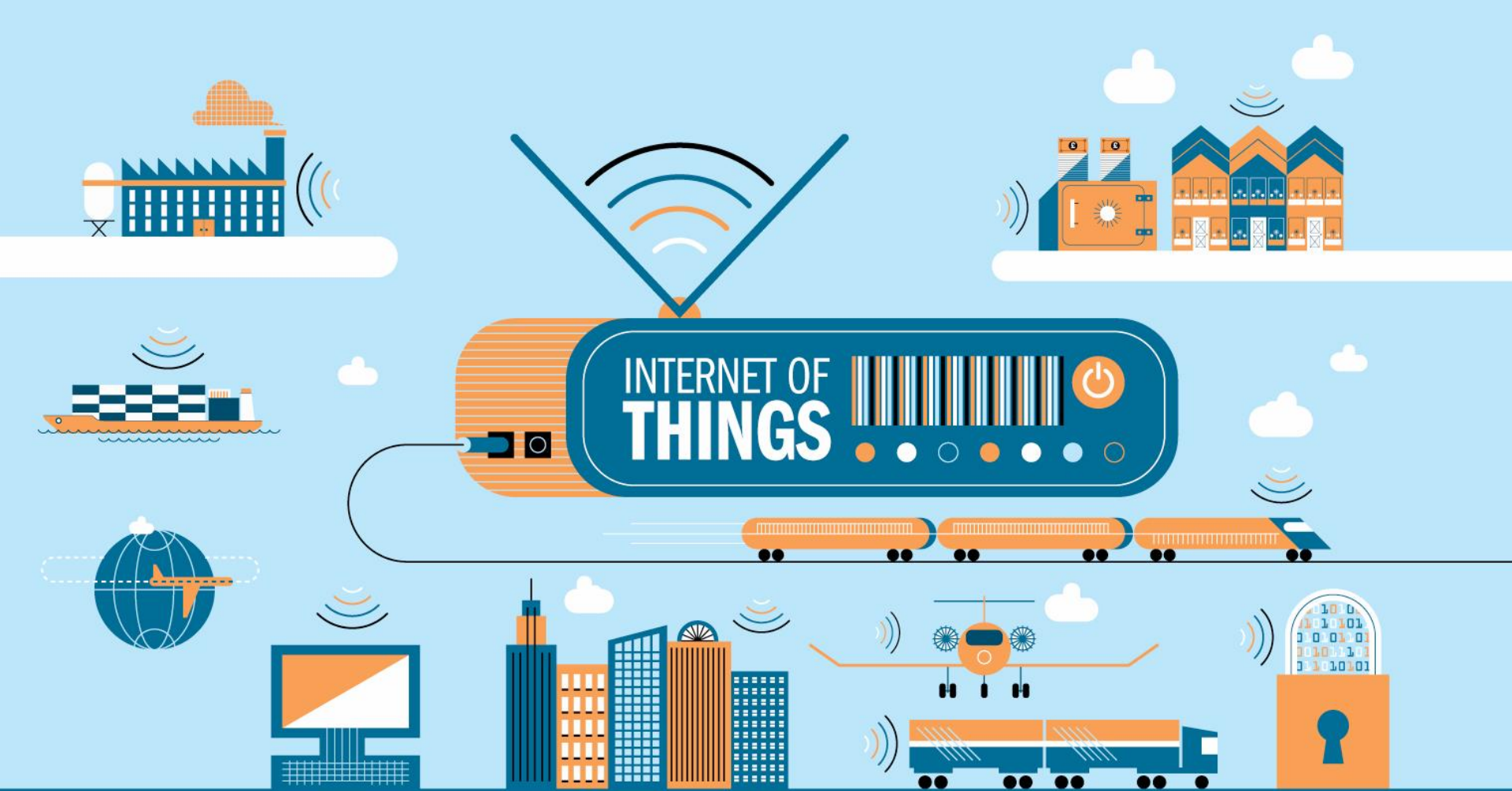
Survey

If you want to check on the status of your land, you can with ease.



Any **QUESTIONS?**

Now it the time for us to answer any questions you might have. If there is any confusion about what we want to do, or how it is relevant, feel free to ask away!



http://www.slideshare.net/iotdc/internet-of-things-dc-july-13-meetup-link-labs

Credits

Shapes & Icons

Vectorial Shapes in this Template were created by **Free Google Slides Templates** and downloaded from **pexels.com** and **unsplash.com**.

Icons in this Template are part of Google® Material Icons and **1001freedownloads.com**.

Backgrounds

The backgrounds were created by **Free Google Slides Templates**.

Images

Photos in this template were downloaded from **pixabay.com**. Attribution is located in each slide notes and the Credits slide.

Fonts

The fonts used in this template are taken from **Google** fonts. (Muli)
You can download the fonts from the following url: https://www.google.com/fonts/