

## INVESTIGATIVE MONITORING

The building envelope is a complex piece of engineering with many variables at play. SMT has the sensors and data-loggers to gather the data you need, the expertise to place them where it matters most, and the software tools that turn data into action.

### What We Monitor:

Specialized sensors monitor such as moisture content, relative humidity, temperature, differential pressure, heat flux, solar radiation, weather stations work in union to provide a suite of technology for the monitoring the following parameters:



Moisture



Differential Pressure



Crack Movement



R-value



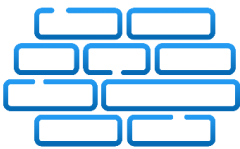
External Conditions



Window Performance

### Where We Monitor:

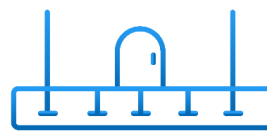
Investigative monitoring sensors monitor for exterior moisture intrusion, condensation, thermal performance, air tightness and differential pressure, and vertical and horizontal movement.



**WALLS**



**ROOFS**



**FOUNDATIONS**



**WINDOWS**

SMT sensors take measurements which are stored locally with our robust data loggers. Over the years we have developed various methods for collecting data from the loggers and uploading it to our Analytics Software for further review and action: Wireless Data logging , Live Wired, Live Wireless, or use of Cellular networks.

Get the information you need to make informed decisions with-out all the hassle of learning how to program or configure electronics for your use.



# WHAT SMT INVESTIGATIVE TECHNOLOGY CAN BE USED FOR

## Commercial

- Green Roof Leak Detection
- Non-Conductive Membrane Leak Detection
- Digital Vector Mapping
- Waterproofing Quality Control
- Technical Analysis
- General Moisture Detection
- Wall & Roof Moisture Content
- Mechanical Space Monitoring
- HVAC Intelligent Integrations
- Condensation Monitoring
- Building Materials Moisture Content
- Building Materials Component Comparisons
- Differential Wall Pressures
- Restoration & Insurance Reporting
- Venting Pressure
- Vapour Pressure
- Window Performance
- Solar Heat Gain
- Solar Radiation Comparisons
- Thermal Profiling
- Masonry Moisture
- In-Situ Heat Flux Monitoring
- Crack / Displacement Monitoring
- Insulation Movement & Shrinkage
- Foundation Moisture Content
- Parkade Monitoring

- Assembly Mockup Comparisons
- Building Element Comparisons
- Construction Litigation support

## Residential

- Attic Monitoring (Attic Monitoring Kit)
- Home Appliance Monitoring
- Specialized Security System Integrations
- Roof Leak Monitoring
- Wood Frame Moisture Content
- Soil Moisture & Gas Monitoring
- Specialized Environmental Monitoring

## Educational

- Climate Monitoring
- Building Enclosure Sciences

## Industrial

- Bridge Deck Monitoring
- WasteWater Treatment
- Sustainable Forestry
- Data Center Monitoring

## SMT Services

SMT is an end-to-end solution provider, and can offer any combination of the following services:

### *Design + Manufacture*

Our technical consultants are experts in helping you select the right sensors and placing them in the most efficient and cost-effective way. We build most of our sensors in house, and can even design custom sensors to suit your project.

### *Monitoring Kits*

We offer "out of the box" monitoring solutions for common variables such as moisture accumulation. We maintain quality control by building these kits in house, and ship worldwide.

### *Install*

Our technicians have installed monitoring systems across North America. We will come to your project site to install all of our solutions.

### *Data*

The key to solving an investigation is well organized data, and we offer data collection options to suit any project and budget. Our Analytics platform offers flexibility and customization for clients who need to manipulate their data, as well as user friendly data visualization options and reporting tools to draw conclusions from your data. We also offer consulting services if you need support with parsing and interpreting data.

### *Support*

At any stage of your relationship with SMT, we are available for phone and email support. We also make available a wealth of information including product data sheets, specifications, installation guides, and videos.