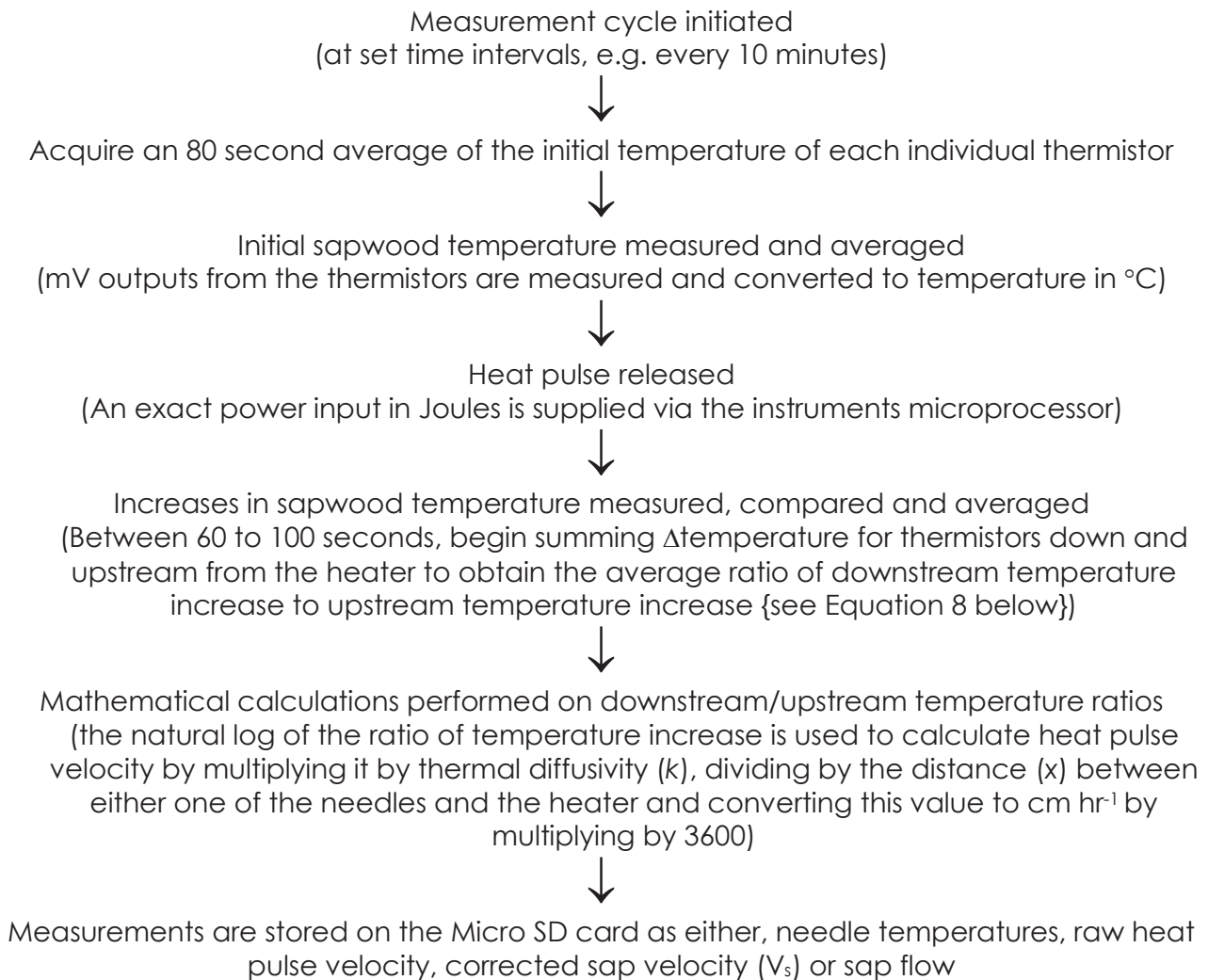


## 7 Measurement Cycle and Process

The measurement cycle is outlined below:



The integrated microprocessor of the SFM1 implements the measurement cycle outlined above. The exact algorithm for the Heat Ratio Method automatically performed by the microprocessor is outlined as follows:

$$V_h = \frac{k}{x} \ln\left(\frac{v_1}{v_2}\right) \times 3600 \text{ cm h}^{-1} \quad \text{Equation 2}$$

**Where:** *k* is the thermal diffusivity of wet wood, *x* the distance between the heat source (heater) and temperature sensors, and *v*<sub>1</sub> and *v*<sub>2</sub> are the increases in temperature (from ambient) at equidistant points downstream and upstream, respectively, *x* cm from the heater.