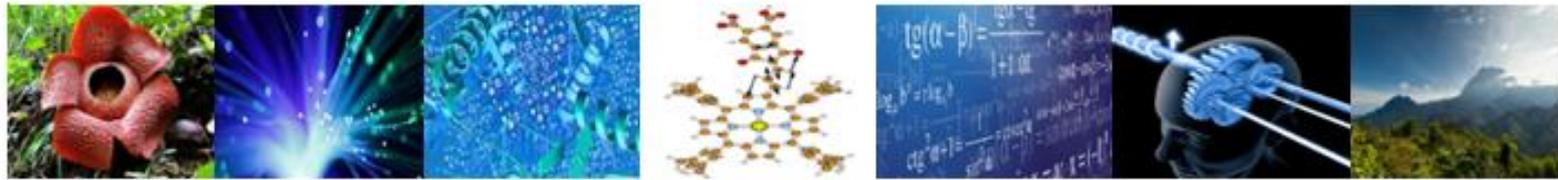


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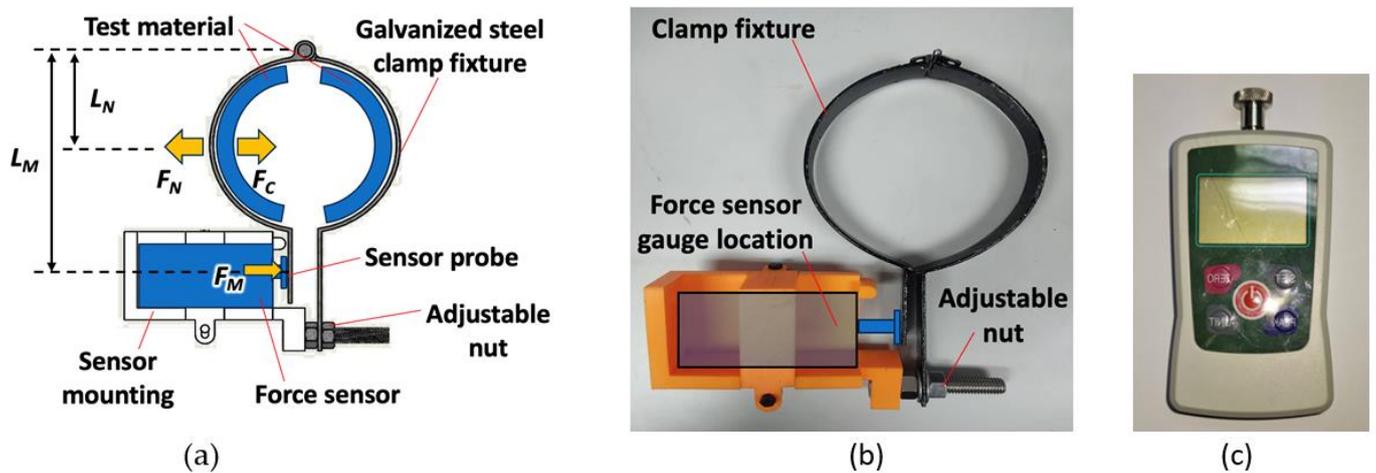
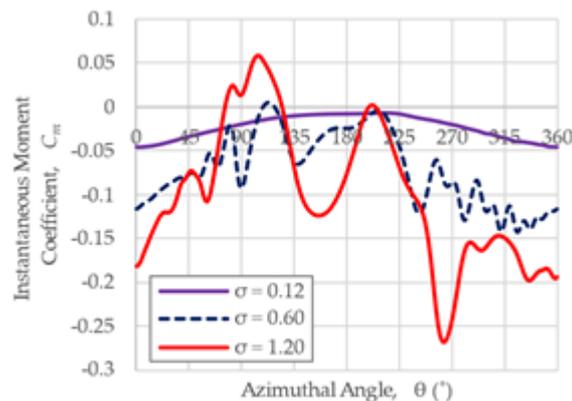


Figure 2. Proposed measurement apparatus (a) concept design, (b) actual design, (c) force gauge



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