ModuleDefinition

    miR-X Sensing
        ComponentDefinitions
            RNA-Based   miR-X (miRNA) as Input
                                LacZ mRNA (mRNA)
                                miR-X Binding Site (miRNA Target Site)
                                miR-X Sensor (mRNA)
                                    Sequence Annotations
                                        lacZ mRNA
                                        miR-X Binding Site
            DNA-Based   miR-X Sensing Device (Gene)
            Protein-Based   LacZ (Enzyme) as Output
        Interactions
            miR-X Sensor Degradation (Degradation)
                Participants
                      miR-X as Activator
                      miR-X Binding Site as Modifier
                      miR-X Sensor as Reactant
            miR-X Sensor Transcription (Transcription)
                Participants
                      miR-X Sensing Device as Modifier
                      miR-X Sensor as Product
            LacZ Translation (Translation)
                Participants
                      miR-X Sensor as Modifier
                      LacZ as Product
        Model
            miR-X_Sensing.xml (SBML, Boolean Logical Framework)

$$LacZ_{i+1} = \begin{cases} 0 & \text{if miR-X}_i \geq 1 \\ 1 & \text{otherwise} \end{cases}$$