We are the makers
Co-funded by the
Erasmus+ Programme
of the European Union

We are the makers – IoT Learning Scenario – Embedding sensors

1.	**Title of the Scenario**	**Embedding sensors warm up**
2.	**Target group**	12-17 Year ols
3.	**Duration**	4-6 hours
4.	**Learning needs**	
5.	**Expected learning outcomes**	Understanding sensors, and their importance for electronics in general Understanding tolerances, and how to design for them.
6.	**Methodologies**	Collaborative learning, project-based learning.
7.	**Place / Environment**	Makerspace or similar
8.	**Tools / Materials / Resources**	Micro controller (microbit, arduino, or similar), LED's, Photosensor, 3D printer, Calipher, PC's etc.

9.	**Step by step description of the activity / content**	1) Divide class into two groups A and B
		2) Have parallel activities for the groups
		   a. One group will learn about photo sensors, and build a simple circuit.
		   b. Another group will design puzzle pieces and learn about tolerances in design.
		3) Make pairs with students from each previous group
		4) Work on embedded sensor in pairs

10.	**Feedback**	
11.	**Assessment & Evaluation**	- On the class