



Otto Cardy **Worksheet 2**

Walking Cardboard Robot - Claudio Gasparini - www.cad-tutor.com/otto_cardy 1

Worksheet #2 - Course planning

Name of the activity	Otto Carty - Build Your Robot
School level and class name	All
Disciplinary contexts	STEAM, math, technologies
Learning Outcomes	<ul style="list-style-type: none">• development of computational thinking• program with visual block programming;• tinkering and creativity skills• ability to work in a team• stimulate motivation towards STEM disciplines and reduce the gender gap• use programming languages to approach robotics
Time	About 3 hours. Time needed to develop the proposed didactic cards and the construction of the robot (See didactic cards)
Individual or team product	Working Robot Otto Carty
Assessment	Formative evaluation and self-evaluation. (See teaching sheets)



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2

<p>Description of the activities</p>	<p>The implementation phases can be divided into three distinct activities that contribute to creating the robot.</p> <p>The first activity is the construction of the cardboard components starting from the interpretation of the technical drawings provided and we can subdivide it into::</p> <ul style="list-style-type: none">A1: cutting of the single components from the cardboardA2: folding of the cardboardA3: choosing the best gluing techniques <p>The second activity concerns the assembly of electronic components and the verification of their operation:</p> <ul style="list-style-type: none">B1: study of the assembly diagram of the componentsB2: identification and verification of the function of the individual componentsB3: connection of all components and check if they are functioning correctly <p>The third activity is the block programming of the robot and the experiment with the various movements:</p> <ul style="list-style-type: none">C1: OttoBlockly software installationC2: calibration of the basic movementsC3: loading some movement and dance sketchesC4: addition of sounds and music
<p>Prerequisites</p>	<p>No specific knowledge of computer science or electronics is required to work on this project.</p>