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| **TITLE: Distance meter** |

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| **LEARNING SCENARIO** | | | |
| ***School:*** | | Duration (minutes): | 40 |
| Teacher: |  | Students  age: | **12 -13** |

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| Essential Question: |  |

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| Topics: |
| * Arduino Programing Card and Block coding (Mblock) |
| Aims: |
| * They will understand the principle of basic tools. |
| Outcomes: |
| * They will code Arduino with Mblock. * They will use LCD * They will use Ultrasonic distance sensor * They will write the data come from sensor on the LCD monitor |
| Work forms:   * Work in pairs   Methods: |
| Presentation and Project based Learning |

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| **ARTICULATION** |
| Course of action (duration, minutes) |
| **INTRODUCTION** |
| **Talk about the final project:**  **We will measure the the distance to other object with ultra-sonic distance sensor and the distance will be display on the LCD monitor.** |
| **MAIN PART**   * Let’s make a Distance meter * Set up this circuit with distance sensor and LCD monitor with I2C module   C:\Users\user\Desktop\arduino lessons\LCD\DISTANCE\arduino-ile-mesafe-sensoru-lcd-ekran-baglanti-semasi.jpg |
| * **Open Mblock and connect the Arduino** * **Don't forget the extention of LCD monitor and HC – SR04 ultrasonic Distance Sensor.** * **Write this code:**   C:\Users\user\Desktop\arduino lessons\LCD\DISTANCE\Ekran Alıntısı.JPG  Video: <https://youtu.be/f9v9jMb753w> |
| **CONCLUSION**  **We provided to display the data come from the sensor on LCD Monitor.** |
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| Methods | Work forms |
| *presentation interview*  *talk demonstration*  *work on the text role playing*  *graphic work*  *interactive exercise /simulation on the computer* | *individual work*  *work in pairs*  *group work*  *frontal work* |

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| Material |
| * Arduino and USB connection Cable * Computer * LCD Monitor with I2c module * Ultra sonic Distance Sensor * jumper Cables |

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| Literature |

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| **PERSONAL OBSERVATIONS, COMMENTS AND NOTES** |
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