IoT Educators Academy: IoT Fundamentals

Course Schedule

Day	Topic	Chapter / Projects	Assessments
11/6	Syllabus (how class will function) Introduction to Arduino: Electronics, IDE setup, Arduino board IoT Overview TinkerCAD demo **Projects 1, 2, 3, 4:** Electronics, TinkerCAD, and Coding	**1: Get to Know Your Tools** **2: Spaceship Interface** 3: Love-O-Meter 4: Color Mixing Lamp	Review Questions – 1, 2, 3, 4 Quiz – Projects 1, 2, 3, 4
11/13	**Projects 5, 6, 7** Electronics, TinkerCAD, and Coding	**5: Mood Cue** 6: Light Theremin 7: Keyboard Instrument	Review Questions – 5, 6, 7 Quiz – Projects 5, 6, 7
11/20	**Projects 8, 9, 10**: Electronics, TinkerCAD, and Coding	**8: Digital Hourglass** 9: Motorized Pinwheel 10: Zoetrope	Review Questions – 8, 9, 10 Quiz – Projects 8, 9, 10
11/27	**Projects 11, 12, 13**: Electronics, TinkerCAD, and Coding	**11: Crystal Ball** 12: Knock Lock 13: Touchy-Feely Lamp	Review Questions –11, 12, 13 Quiz – Projects 11, 12, 13
TBD	**Arduino Certification Exam**	**Certification Exam**	

Weekly Meeting Agenda

Time	Agenda	
9:00 am	1) Hand-on demonstration of the first project of each week (1 hr) *11/6 – Projects 1 & 2* *11/13 – Project 5* *11/20 – Project 8* *11/27 – Project 11* a) Project presentation (PPT) b) Wiring (with Tinkercad) including discussion of schematic c) Coding d) Operation	Project build demo
10:00 am	2) Individual build time (2 hrs)	
12:00 pm	LUNCH BREAK (1 hr)	
1:00 pm	3) Project debriefing, Q & A (30 min) 4) Project review questions and quiz	
1:30 pm	5) Discussion of the remaining projects for the week (30 min)	
2:00 pm	6) Discussion of the week's projects (1 hr): *11/6 – Projects 3, 4* *11/13 – Projects 6, 7* *11/20 – Projects 9, 10* *11/27 – Projects 12, 13* a) The project objectives b) The electronic principles – including component and wiring discussion c) The coding principles	