



Center for Engineering
Education and Outreach

Making a SMARTLAB - 2013

	Approximate Unit Cost (USD)	Quantity	Total Cost (USD)	Total Cost (IDR)
1 SMART LAB Furniture and Basic Outfittings			\$ 1,230	IDR 12,300,000
<i>Workshop folding tables</i>	\$60.00	2	\$ 120	IDR 1,200,000
<i>Workshop folding chairs</i>	\$30.00	30	\$ 900	IDR 9,000,000
<i>Powerstrips</i>	\$10.00	5	\$ 50	IDR 500,000
<i>Voltage Regulators (for high-end equipment)</i>	\$40.00	4	\$ 160	IDR 1,600,000
<i>Six-quart storage bins</i>	\$50.00	10	\$ 500	IDR 5,000,000
<i>Wall rack for LEGOs and bins (cost is just a guess)</i>	\$500.00	1	\$ 500	IDR 5,000,000
2 LEGO Kits and Software			\$ 64,900	IDR 649,000,000
<i>LEGO Mindstorms Education Base Sets</i>	\$485.00	100	\$ 48,500	IDR 485,000,000
<i>LEGO Mindstorms Battery Chargers</i>	\$30.00	30	\$ 900	IDR 9,000,000
<i>LabView Software</i>	\$500.00	5	\$ 500	IDR 5,000,000
<i>Laptops for Labview Software</i>	\$1,000.00	15	\$ 15,000	IDR 150,000,000
3 3D Printing and Laser Cutter			\$ 10,600	IDR 106,000,000
<i>3D Printers - Replicator 2X from Makerbot</i>	\$2,700.00	2	\$ 5,400	IDR 54,000,000
<i>Dedicated Computers for 3D printer</i>	\$1,500.00	2	\$ 3,000	IDR 30,000,000
<i>3D Printing Software - TinkerCad (free)</i>	\$0.00	2	\$ -	IDR -
<i>Supplies for 3D Printer (Pellets, cleaning supplies, etc.)</i>	\$200.00	1	\$ 200	IDR 2,000,000
<i>Laser Cutter</i>	\$2,000.00	1	\$ 2,000	IDR 20,000,000

4	Electronics			\$	5,300	IDR 53,000,000
	<i>Arduinos - Starter Kits from Sparkfun</i>	\$200.00	20	\$	4,000	IDR 40,000,000
	<i>NXT Breadboard Adaptors</i>	\$40.00	20	\$	800	IDR 8,000,000
	<i>Various Supplies</i>	500	1	\$	500	IDR 5,000,000
	<i>(extra wires, resistors, capacitors, LEDs, motors, etc.)</i>					
5	MakerSpaces Supplies			\$	1,335	IDR 13,350,000
	<i>Cordless drill</i>	\$40.00	2	\$	80	IDR 800,000
	<i>Finishing Sander</i>	\$55.00	2	\$	110	IDR 1,100,000
	<i>Hammers</i>	\$10.00	5	\$	50	IDR 500,000
	<i>Hand Saws</i>	\$15.00	5	\$	75	IDR 750,000
	<i>Measuring Tapes</i>	\$5.00	10	\$	50	IDR 500,000
	<i>Pliers (sets of 3)</i>	\$15.00	3	\$	45	IDR 450,000
	<i>Wire Strippers</i>	\$15.00	5	\$	75	IDR 750,000
	<i>Safety goggles</i>	\$5.00	30	\$	150	IDR 1,500,000
	<i>Clamps (6 piece set of various sizes)</i>	\$50.00	2	\$	100	IDR 1,000,000
	<i>Ear Protectors (packs of 20)</i>	\$10.00	10	\$	100	IDR 1,000,000
	<i>Batteries (various sizes as needed)</i>	\$70.00	1	\$	70	IDR 700,000
	<i>LEDs (packs of 60)</i>	\$5.00	10	\$	50	IDR 500,000
	<i>Soldering Irons</i>	\$8.00	5	\$	40	IDR 400,000
	<i>Glue guns</i>	\$12.00	5	\$	60	IDR 600,000
	<i>Wood pieces (recycled scrap)</i>	\$0.00	1	\$	-	IDR -
	<i>Screwdrivers</i>	\$5.00	10	\$	50	IDR 500,000
	<i>Ratchet Set</i>	\$10.00	3	\$	30	IDR 300,000
	<i>Markers (64 marker set)</i>	\$10.00	5	\$	50	IDR 500,000
	<i>Protective gloves</i>	\$15.00	10	\$	150	IDR 1,500,000