Bill of Materials (BoM):

ID	Name	Designator	Footprint	Quantity
1	X10B25U15T	FPC	FPC-SMD_X10B25U15T	1
2	103	R6	R0402	1
3	25MHz	X1	OSC-SMD_4P-L3.2-W2.5-BL	1
4	102	R1	R0402	1
5	LED-0603_R	LED1	LED0603_RED	1
6	1m	L1, L2	L0805	2
7	XC6204B332MR	U3, U1, U2	SOT-23-5_L3.0-W1.7-P0.95-LS2.8-BR	3
8	103	R4, R7	R0603	2
9	DF30FC-24DS-0.4V(82)	CN1	CONN-SMD_DF30FC-24DS-0.4V(82)	1
10	0.1u	C11,C4,C6,C7,C8,C9,C10,C16,C12,C13,C14,C15,C5	C0402	13
11	0.1u	C1,C17	C0603	2

Assembly Instructions:

1. **Soldering some of the small components first** I mean cosnider starting with resistors and capacitors.
2. **Mounting the thing like AMS1117 regulator** if we are going to use and do soldering thing to it very carefully.
3. **Attaching the key component in our case this ESP32 module** and be very thing to make sure that it is properly aligned or not.
4. **Soldering the main GPIO based header pins and also the main connectors** for this camera module, display, and the battery/ power source.
5. **Checking all the connections in a keen manner with a multimeter** and also ensuring there is no shorts and need to verify the continuity.
6. **Power up using a USB-C cable** and upload basic test code to verify functionality.
7. **Install into a 3D-printed enclosure** if needed, leaving access to ports.